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Major A

PREREQUISITES

MAJOR-LEVEL COURSES

Government

GOVT - Government Courses

History

I. Majors and the Minor open to the classes of 2023 and earlier

HIST - History Courses

Humanities

HUM - Humanities Courses

Jewish Studies

JWST - Jewish Studies Courses

Language and Advanced Language Study Abroad Program

Latin American, Latino and Caribbean Studies

Associated Courses for LACS/LATS

LACS - Latin American and Caribbean Studies Courses

LATS - Latino Studies Courses

Lesbian, Gay, Bisexual, and Transgender Studies

About Lesbian, Gay, Bisexual, and Transgender Studies

Linguistics

LING - Linguistics Courses

Literature in Translation

Course Listing

Minor in Materials Science

Mathematics - Undergraduate

MATH - Mathematics - Undergraduate Courses

Medieval and Renaissance Studies

Middle Eastern Studies

Middle eastern studies MAJOR

HONORS program

Middle eastern studies MINOR

HEBR - Hebrew Courses

ARAB - Arabic

MES - Middle Eastern Studies

Music - Undergraduate

MUS - Music - Undergraduate Courses

Native American and Indigenous Studies

Minor Requirements

NAS - Native American Studies Courses

Neuroscience

Major in Neuroscience

Minor in Neuroscience

Honors Program

Philosophy

PHIL - Philosophy Courses

Physical Education

Physics and Astronomy - Undergraduate

ASTR - Astronomy - Undergraduate Courses

PHYS - Physics - Undergraduate Courses

Psychological and Brain Sciences - Undergraduate

PSYC - Psychological and Brain Sciences - Undergraduate Courses

Quantitative Social Science

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ABOUT THIS CATALOG

Volume LXXXI, September 2021

This catalog has been prepared for the benefit of students, faculty, and officers of Dartmouth College, and of others wishing to know more about the College’s programs and activities. The information contained herein is accurate as of the date of publication (September 2021), and the officers of the College know of no significant changes to be made in the near future. However, Dartmouth College reserves the right to make from time to time such changes in its operations, programs, and activities, including cancellation of classes and campus closure, as the Trustees, faculty, and officers consider appropriate and in the best interests of the Dartmouth community.

Dartmouth College is committed to the principle of equal opportunity for all its students, faculty, employees, and applicants for admission and employment. For that reason Dartmouth does not discriminate on the basis of race, color, religion, sex, age, sexual orientation, gender identity or expression, national origin, disability, or military or veteran status in its programs, organizations, and conditions of employment and admission.

Any person having inquiries or complaints concerning Dartmouth’s compliance with this policy or with federal regulations relating to nondiscrimination is directed to contact the Office of Institutional Diversity & Equity, Parkhurst 006 (garden level), HB 6018, Hanover, New Hampshire 03755-3541, (603) 646-3197. The ADA Coordinator has been designated by Dartmouth to coordinate the institution’s efforts to comply with the regulations implementing Section 504 and the Americans with Disabilities Act.

Dartmouth College is accredited by the New England Association of Schools and Colleges Commission on Institutions of Higher Education.
DARTMOUTH COLLEGE MISSION STATEMENT

Dartmouth College educates the most promising students and prepares them for a lifetime of learning and of responsible leadership, through a faculty dedicated to teaching and the creation of knowledge.

Our Core Values

Dartmouth expects academic excellence and encourages independence of thought within a culture of collaboration.

Dartmouth faculty are passionate about teaching our students and are at the forefront of their scholarly or creative work.

Dartmouth embraces diversity with the knowledge that it significantly enhances the quality of a Dartmouth education.

Dartmouth recruits and admits outstanding students from all backgrounds, regardless of their financial means.

Dartmouth fosters lasting bonds among faculty, staff, and students, which encourage a culture of integrity, self-reliance, and collegiality and instill a sense of responsibility for each other and for the broader world.

Dartmouth supports the vigorous and open debate of ideas within a community marked by mutual respect.

Our Legacy

Since its founding in 1769 to educate Native students, English youth, and others, Dartmouth has provided an intimate and inspirational setting where talented faculty, students, and staff—diverse in background but united in purpose—contribute to the strength of an exciting academic community that cuts easily across disciplines.

Dartmouth is committed to providing the best undergraduate liberal arts experience and to providing outstanding graduate programs in the Dartmouth Medical School (founded 1797), the Thayer School of Engineering (1867), the Tuck School of Business (1900), and the graduate programs in the Arts and Sciences. Together they constitute an exceptional and rich learning environment.

Dartmouth faculty and student research contributes substantially to the expansion of human understanding.

The College provides a comprehensive out-of-classroom experience, including service opportunities, engagement in the arts, and competitive athletic, recreational, and outdoor programs. Pioneering programs in computation and international education are hallmarks of the College.

Dartmouth graduates are marked by an understanding of the importance of teamwork, a capacity for leadership, and their keen enjoyment of a vibrant community. Their loyalty to Dartmouth and to each other is legendary and is a sustaining quality of the College.

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The Faculty of Arts and Sciences

Active Faculty

Note: The list is of A&S active faculty and research associates for 2021-22. The faculty are listed alphabetical by last name; the date indicates the year of initial appointment.

Aman Senay Aberra (2021) Ph.D., Research Associate in the Neukom Institute and Lecturer of Biological Sciences
Margaret Ackerman (2011) Ph.D., Adjunct Professor of Chemistry, Thayer School Professor of Engineering Sciences
Susan Ackerman (1990) Ph.D., Preston H. Kelsey Professorship in Religion
Douglas Allan Addleman (2020) Ph.D., Research Associate of Psychological and Brain Sciences
Leila Agha (2016) Ph.D., Assistant Professor of Economics
Joseph Aguado (2002) Ph.D., Professor of Spanish and Portuguese
Giorgio Alberti (2016) Ph.D., Senior Lecturer of French & Italian
Katherine Lynn Alfred (2021) Ph.D., Research Associate of Psychological and Brain Sciences
Samantha Gayle Allen (2018) Ph.D., Research Associate and Lecturer of Mathematics
Shaonta' Allen (2021) Ph.D., Research Associate of Sociology for Mellon Faculty Fellow Postdoctoral Program
Treb Allen (2016) Ph.D., Associate Professor of Economics
Luis Felipe Alvarez Leon (2018) Ph.D., Assistant Professor of Geography
Cesar James Alvarez (2020) M.F.A., Assistant Professor of Music
Sitwat Aman (2016) Ph.D., Research Associate of Biological Sciences
Amanda Anne Amodeo (2020) Ph.D., Assistant Professor of Biological Sciences
Tonima Tasnim Ananna (2019) Ph.D., Research Associate of Physics & Astronomy
Patricia M. Anderson (1991) Ph.D., Professor of Economics
Devika Shyam Andhare (2020) Ph.D., Research Associate

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Michael F. Wagner, B.S., M.S., Chief Financial Officer
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Francine M. A’ness (1999) Ph.D., Lecturer of College Courses, Writing Program, and Women's, Gender, and Sexuality Studies
Kianny N. Antigua (2014) M.A., Senior Lecturer of Spanish and Portuguese
Ivan Aprahamian (2008) Ph.D., Professor of Chemistry
Valentina Y. Apresyan (2010) Ph.D., Lecturer of Russian
Victoria Aschheim (2018) Ph.D., Research Associate in the Society of Fellows and Lecturer of Music
Paloma Asensio (2005) Ph.D., Senior Lecturer of Spanish and Portuguese
Eran Assaf (2019) Ph.D., Research Associate of Mathematics
Asher Natan Auel (2019) Ph.D., Associate Professor of Mathematics
Gerald Auten (1993) M.F.A., M.Arch., Senior Lecturer of Studio Art
Bernard Avishai (2012) Ph.D., Visiting Professor of Government and Political Economy Project
Matthew P. Ayres (1993) Ph.D., Professor of Biological Sciences
Zhra M. Shaoh Ayubi (2013) Ph.D., Associate Professor of Religion
Comfort Chioma Azubuko-Udah (2021) Ph.D., Research Associate in the Mellon Postdoctoral Fellowship Program and Lecturer of English and Creative Writing and African and African American Studies
Angelica Babei (2021) Ph.D., Research Associate of Mathematics
Joseph Bafumi (2006) Ph.D., Associate Professor of Government
Tiraana Bains (2021) Ph.D., Research Associate and Lecturer of History
Timothy Michael Baker (2015) Th.D., Assistant Dean of Faculty for Special Projects and Pre-Major Advising
Shruthi Balachandra (2021) Ph.D., Research Associate of Biological Sciences
Devin Balkcom (2004) Ph.D., Professor of Computer Science
Randall Balmer (2007) Ph.D., John Phillips Professorship in Religion
Jason Barabas (2020) Ph.D., Professor of Government and Director of Rockefeller Center
Darryl Gerard Barthe (2021) Ph.D., Lecturer of History
Carmen Bascunan (2010) J.D., Senior Lecturer of Spanish and Portuguese
Emek Basker (2020) Ph.D., Visiting Associate Professor of Economics
Peggy Baum (2013) M.A., Lecturer of Writing Program
Robert M. Baum (2013) Ph.D., Associate Professor of Religion and African and African American Studies
Virginia C. Beahan (2001) M.F.A., Senior Lecturer of Studio Art
Faith E. Beasley (1986) Ph.D., Professor of French & Italian
Richard Alan Beaudoin (2017) Ph.D., Assistant Professor of Music
Ingrid Destray Becker (2021) Ph.D., Lecturer of English and Creative Writing and Writing Program
Jessica C. Beckman (2020) Ph.D., Assistant Professor of English and Creative Writing
Sonu S. Bedi (2007) Ph.D., Hans '80 and Kate Morris Director of the Ethics Institute, Joel Parker 1811 Professorship in Law and Political Science, Professor of Government
Sara Behnami (2021) Ph.D., Research Associate of Biological Sciences
Fiona Elizabeth Belbin (2020) Ph.D., Research Associate of Biological Sciences
Joseph J. BelBruno (1982) Ph.D., Professor of Chemistry, Emeritus and Research Professor of Chemistry
Joshua Bennett (2019) Ph.D., Assistant Professor of English and Creative Writing
Damiano Benvengui (2015) Ph.D., Senior Lecturer of Comparative Literature and French & Italian
Nutri Ben-Yehuda (2007) M.A., Senior Lecturer of Hebrew
Magdalena Bezanilla (2017) Ph.D., Ernest Everett Just 1907 Professorship in the Natural Sciences, Professor of Biological Sciences
Sharon E. Bickel (1997) Ph.D., Professor of Biological Sciences
Karen Hutchins Bolch (2021) Ph.D., Research Associate of Biological Sciences
Sabrina Joan Billings (2015) Ph.D., Senior Lecturer of Dean of Faculty and Anthropology
James P. Binkoski (2014) Ph.D., Senior Lecturer of Philosophy and Writing Program
Rebecca E. Biron (2006) Ph.D., Director of the Leslie Center, Professor of Spanish and Portuguese
David G. Blanchflower (1989) Ph.D., Bruce V. Rauner 1978 Professorship, Professor of Economics
Miles P. Blencowe (1999) Ph.D., Eleanor and A. Kelvin Smith Distinguished Professorship in Physics, Professor of Physics & Astronomy
Ke Bo (2021) Ph.D., Research Associate of Psychological and Brain Sciences
Colleen G. Bogg (2001) Ph.D., Parents Distinguished Research Professorship in the Humanities, Professor of English and Creative Writing
Douglas T. Bolger (1993) Ph.D., Professor of Environmental Studies, Adjunct Professor of Biological Sciences
Robert E. Bonner (2005) Ph.D., Kathe Tappe Vernon Professorship in Biography, Professor of History
Vaughn Angelo Booker (2016) Ph.D., Assistant Professor of Religion and African and African American Studies
Rotem Botvinik Nezer (2019) Ph.D., Research Associate and Research Associate of Psychological and Brain Sciences
Sabrina Joan Billings (2015) Ph.D., Senior Lecturer of Dean of Faculty and Anthropology
Neil V. Boyer (1977) M.M., Senior Lecturer of Music
Sergey L. Bratus (2005) Ph.D., Research Associate Professor of Computer Science
Rachel Lyn Braude (2018) B.M., Lecturer of Music
Agostina Maria Brinatti (2021) M.A., Research Fellow of Economics
Susan J. Brison (1985) Ph.D., Eunice and Julian Cohen Professorship for the Study of Ethics and Human Values, Professor of Philosophy
Martina Broner Szychowski (2020) Ph.D., Assistant Professor of Spanish and Portuguese
Deborah J. Brooks (2003) Ph.D., Associate Professor of Government
James E. Brown (1990) M.F.A., Senior Lecturer of Film & Media Studies, Emeritus
Kimberly Juanita Brown (2020) Ph.D., Associate Professor of English and Creative Writing
Michelle Lee Brown (2019) Ph.D., Research Associate and Lecturer of Native American and Indigenous Studies
Yorke J. Brown (2003) Ph.D., Visiting Professor of Physics & Astronomy
Ann E. Bumpus (1991) Ph.D., Senior Lecturer of Philosophy and Writing Program
Melody B. Burkins (2002) Ph.D., Adjunct Professor of Environmental Studies
Louis G. Burkot (1981) M.M., Senior Lecturer of Music
Leslie A. Butler (2003) Ph.D., Associate Professor of History
Robert R. Caldwell (2000) Ph.D., Professor of Physics & Astronomy
Danielle Callegari (2020) Ph.D., Assistant Professor of French & Italian
Colin G. Calloway (1995) Ph.D., John Kimball Jr. 1943 Professor, Professor of History and Native American and Indigenous Studies
Brittany Calsbeek (2013) Ph.D., Lecturer of Biological Sciences
Ryan G. Calsbeek (2006) Ph.D., Associate Professor of Biological Sciences
Nicola M Camerlenghi (2013) Ph.D., Associate Professor of Art History
Andrew T. Campbell (2005) Ph.D., Albert Bradley 1915 Third Century Professorship, Professor of Computer Science
Clifford Charles Campbell (2018) Ph.D., Lecturer of African and African American Studies and History
John L. Campbell (1996) Ph.D., Class of 1925 Professorship, Professor of Sociology
Nancy L. Canepa (1990) Ph.D., Associate Professor of French & Italian
Robert S. Cantor (1984) Ph.D., Professor of Chemistry
Andrew Marc Caplan (2020) Ph.D., Lecturer of Jewish Studies and Jewish Studies FYS
Eugenie Georgia Carabatos (2017) M.F.A., Lecturer of Writing Program and Dean of Faculty
John M. Carey (2003) Ph.D., Associate Dean for the Social Sciences, John Wentworth Professorship in the Social Sciences, Professor of Government
Margaret Clark Carpenter (2017) Ph.D., Lecturer of Chemistry
Samuel Klimkie Carter (2020) Ph.D., Lecturer of Spanish and Portuguese
Jesse John Casana (2015) Ph.D., Professor of Anthropology
Michael A. Casey (2008) Ph.D., Professor of Music and Computer Science
Marcia L. Cassidy (1987) M.A., Senior Lecturer of Music
Vanessa Castaneda (2021) Ph.D., Research Associate of Latin American, Latino, and Caribbean Studies and Provost General
Christine Elizabeth Castro (2019) Ph.D., Research Associate of Latin American, Latino, and Caribbean Studies
Jon-Ryan Cavanaugh (2019) Ph.D., Research Associate of Psychological and Brain Sciences
Brian C. Chaboyer (1998) Ph.D., Professor of Physics & Astronomy
Jamila Chubbun (2009) M.A., Senior Lecturer of Middle Eastern Studies
Amit Chakrabarti (2003) Ph.D., Professor of Computer Science
Deeparnab Chakrabarty (2017) Ph.D., Associate Professor of Computer Science
Michael A. Chaney (2005) Ph.D., Edward Hyde Cox Professorship, Professor of English and Creative Writing
Hsien-Chih Chang (2020) Ph.D., Assistant Professor of Computer Science
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Science, Thayer School Dorothy and Walter Gramm
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and Portuguese
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#3, Professor of Spanish and Portuguese
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American, Latino, and Caribbean Studies and MALS -
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Andrew J. Friedland (1987) Ph.D., Richard and Jane Pearl Professorship in Environmental Studies
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Veronika Fuechte (2002) Ph.D., Associate Professor of German Studies
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Michael Joseph Gano (2015) M.F.A., Associate Professor of Theater
M. Cecilia Gaposchkin (2003) Ph.D., Professor of History
Brenda Garand (1995) M.F.A., Professor of Studio Art
Amy Ruth Garapic (2015) M.Mus, Lecturer of Music
Desiree Jensen Garcia (2017) Ph.D., Associate Professor of Latin American, Latino, and Caribbean Studies
Jorge Antonio Garduno Rojas (2020) Ph.D., Research Associate of Chemistry
Alysia Garrison (2011) Ph.D., Assistant Professor of English and Creative Writing
Arthur Gavat (2021) B.A., Instructor of French & Italian
Anne E Gelb (2016) Ph.D., John G. Kemeny Parents Professorship in Mathematics
Gerd Gemunden (1991) Ph.D., Sherman Fairchild Professorship in the Humanities, Professor of German Studies and Comparative Literature and Film & Media Studies
Siddharth Eapen George (2019) Ph.D., of Economics
Tillman Gerngross (1999) Ph.D., Adjunct Professor of Biological Sciences and Chemistry, Thayer School Professor of Engineering Sciences
Levi S Gibbs (2013) Ph.D., Associate Professor of Asian Societies Cultures and Languages
Matteo Gilebbi (2017) Ph.D., Senior Lecturer of French & Italian
Jan Glaußitz (2020) Ph.D., Research Associate and Lecturer of Mathematics
Patrick O'Farrell Glaubitz (2017) Ph.D., Assistant Professor of Classics
Marcelo Gleiser (1991) Ph.D., Appleton Professorship in Natural Philosophy, Professor of Physics & Astronomy
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Johannes Gluckler (2021) Ph.D., Visiting Professor of Harris-German Visiting Prof
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Maria Ida Gobbini (2012) Ph.D., Research Associate Professor of Psychological and Brain Sciences and Cognitive Sciences
Barbara Gobel (2020) Ph.D., Visiting Professor of Harris-German Visiting Prof
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Jalina Alissa Graham (2019) Ph.D., Research Associate and Research Associate of Psychological and Brain Sciences
Clare Terese Greal (2020) Ph.D., Research Associate of Psychological and Brain Sciences
Richard Granger (2006) Ph.D., Professor of Psychological and Brain Sciences
Matthew William Grant (2020) Ph.D., Assistant Professor of Economics
Margaret R. Graver (1996) Ph.D., Aaron Lawrence Professorship in Classics
Udi Greenberg (2010) Ph.D., Associate Professor of History
Kevin Tipton Greene (2020) Ph.D., Research Associate of Computer Science
Maron E Greenleaf (2018) Ph.D., Assistant Professor of Anthropology
Patrick Joseph Greenlee (2021) Ph.D., Lecturer of Economics
Gordon W. Griswold (1968) Ph.D., Professor of Chemistry, Emeritus, and Research Professor and Lecturer of Chemistry
Roderick McKinlay Gries (2020) PSY.D., Research Associate of Psychological and Brain Sciences
Erik E. Griffin (2012) Ph.D., Associate Professor of Biological Sciences
Sean Delaine Griffin (2017) Ph.D., Lecturer of Religion
Gevorg Grigoryan (2011) Ph.D., Associate Professor Computer Science, Adjunct Associate Professor of Chemistry and Biological Sciences
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Alexis Jetter (2005) M.A., Lecturer of English and
Creative Writing and Women's, Gender, and Sexuality
Studies
Rebecca Ann Johnson (2020) Ph.D., Assistant Professor of
Quantitative Social Science
Eshin Jolly (2019) Ph.D., Research Associate of
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Gregory L. Smith (2021) Ph.D., Research Associate of Dickey Center
Kristin E. Smith (2008) Ph.D., Visiting Associate Professor of Sociology
Kyle S Smith (2013) Ph.D., Associate Professor of Psychological and Brain Sciences
Sarah Bartos Smith (2008) Ph.D., Senior Lecturer of Environmental Studies and Writing Program and Class of 62 - WRIT
Sean W. Smith (2000) Ph.D., Professor of Computer Science
Timothy P. Smith (2004) Ph.D., Adjunct Associate Professor of Physics & Astronomy
Jonathan Smolin (2005) Ph.D., Jane and Raphael Bernstein Professorship in Asian Studies, Associate Professor of Middle Eastern Studies
Christopher S. Sneddon (2000) Ph.D., Professor of Environmental Studies and Geography

Julie Lyn Snorek (2018) Ph.D., Research Associate of Environmental Studies
Christopher M. Snyder (2005) Ph.D., Joel Z. and Susan Hyatt Professorship, Professor of Economics
Amanda Lee Socha (2016) Ph.D., Lecturer of Biological Sciences
Alireza Soltani (2013) Ph.D., Associate Professor of Psychological and Brain Sciences
Victoria Somoff (2007) Ph.D., Associate Professor of Russian
Leslie J. Sonder (1988) Ph.D., Associate Professor of Earth Science
Elisabeth Newton Sowerwine (2018) Ph.D., Assistant Professor of Physics & Astronomy
Thomas A. Spencer Jr (1960) Ph.D., Professor of Chemistry, Emeritus, and Research Professor of Chemistry
Aaron Spink (2021) Ph.D., Lecturer of Philosophy
Silvia D. Spitta (1989) Ph.D., Robert E. Maxwell 1923 Professorship in Arts and Sciences, Professor of Spanish and Portuguese and Comparative Literature
Mitchell Garrison Spring (2021) Ph.D., Research Associate of Psychological and Brain Sciences
Robert A. St. Clair (2014) Ph.D., Associate Professor of French & Italian
Robert W Staiger (2013) Ph.D., Roth Family Distinguished Professorship, Professor of Economics
James N. Stanford (2008) Ph.D., Professor of Linguistics
Meredith Lundberg Startz (2020) Ph.D., Assistant Professor of Economics
Adam Daniel Steel (2019) Ph.D., Research Associate in the Neukom Institute and Lecturer of Psychological and Brain Sciences
Daniel Antonie Stehr (2020) Ph.D., Research Associate of Psychological and Brain Sciences
Daniel Steinmetz-Jenkins (2019) Ph.D., Research Associate and Lecturer of History
Robert L. Stewart (1990) Ph.D., Professor of Classics
Viola Sophie Stoermer (2020) Ph.D., Assistant Professor of Psychological and Brain Sciences
Arjen Stolk (2019) PSY.D., Assistant Professor of Psychological and Brain Sciences
Jeffrey Joseph Stott (2015) Ph.D., Research Associate of Psychological and Brain Sciences
Justin V. Strauss (2015) Ph.D., Assistant Professor of Earth Science
Patricia Rachael Stuelke (2015) Ph.D., Assistant Professor of English and Creative Writing
Venkatramanan Siva Subrahmanian (2017) Ph.D., Distinguished Professor in Cybersecurity, Technology, and Society, Professor of Computer Science
Soyoung Suh (2011) Ph.D., Korea Foundation Professorship, Associate Professor of History and Asian Societies Cultures and Languages
Michael Sun (2019) Ph.D., Research Associate of Psychological and Brain Studies
Craig J. Sutton (2005) Ph.D., Associate Professor of Mathematics
Swadhin Swain (2020) Ph.D., Research Associate of Biological Sciences
Lucas A. Swaine (2001) Ph.D., Professor of Government
Harold M. Swartz (2011) Ph.D., Adjunct Professor of Chemistry
Steven R. Swayne (1999) Ph.D., Jacob H. Strauss Professorship in Music
Sara Ann Swenson (2021) Ph.D., Assistant Professor of Religion
Nicholas R. Sylvain (2013) Ph.D., Lecturer of Biological Sciences
Monika Sztajerowska (2021) M.A., Research Fellow of Economics
Nirvana Tanoukhi (2017) Ph.D., Assistant Professor of English and Creative Writing
Andrea W. N. Tarnowski (1993) Ph.D., Associate Professor of French & Italian
Martin Tassy (2017) Ph.D., Research Associate and Lecturer of Mathematics
Jeffrey S. Taube (1990) Ph.D., Professor of Psychological and Brain Sciences
Alan C Taylor (2013) Ph.D., Senior Lecturer of Writing Program
Melanie B. Taylor (2009) Ph.D., Professor of Native American and Indigenous Studies
Natalie Teale (2021) Ph.D., Research Associate in the Society of Fellows and Lecturer of Geography
Hakan P. Tell (2004) Ph.D., Associate Professor of Classics
Mikhail Temkin (2021) Ph.D., Research Associate and Lecturer of Mathematics
Hannah ter Hofstede (2013) Ph.D., Associate Professor of Biological Sciences
Zaneta Marie Thayer (2016) Ph.D., Associate Professor of Anthropology
Christine J. Thomas (1997) Ph.D., Associate Professor of Philosophy
Amie Lynn Thomasson (2017) Ph.D., Daniel P. Stone Professorship in Intellectual and Moral Philosophy, Professor of Philosophy
Mark Allen Thornton (2020) Ph.D., Assistant Professor of Psychological and Brain Sciences
John R. Thorstensen (1980) Ph.D., Professor of Physics & Astronomy
Shatema Threadcraft (2017) Ph.D., of Government
Francesco Ticozzi (2011) Ph.D., Adjunct Associate Professor of Physics & Astronomy
Michele T. Tine (2009) Ph.D., Associate Professor of Sociology
Zenovia Toloudi (2014) D.Des., Associate Professor of Studio Art
Lorenzo Torresani (2009) Ph.D., Professor of Computer Science
Tricia Treacy (2020) M.F.A., Associate Professor of Studio Art
Tim Andrew Tregubov (2016) M.S., Senior Lecturer and Senior Lecturer of Computer Science
Elizabeth Clare Tremmel (2017) Ph.D., Lecturer of Writing Program
John D. Trout (1995) Ph.D., Associate Professor of Mathematics
Jessica Trout-Haney (2017) Ph.D., Lecturer of Biological Sciences
Peter U. Tse (2001) Ph.D., Professor of Psychological and Brain Sciences
Mary J Turk (2020) Ph.D., Adjunct Professor of Biological Sciences
Aleksandr Y Ukhorskiy (2013) Ph.D., Adjunct Associate Professor of Physics & Astronomy
Roger B. Ulrich (1989) Ph.D., Butterfield Professorship, Professor of Classics
Glorieuse Uwizeye (2020) Ph.D., Research Associate in the Society of Fellows and Lecturer of Anthropology
Benjamin A. Valentino (2003) Ph.D., Professor of Government
Maria Theresa Vallarta (2021) M.A., Predoctoral Fellow in Asian American Studies, Women's, Gender, and Sexuality Studies
Douglas Wayne Van Citters (2011) Ph.D., Associate Dean for Undergraduate Education, Adjunct Associate Professor of Chemistry, Thayer School Associate Professor of Engineering Sciences
Matthijs van der Meer (2015) Ph.D., Associate Professor of Psychological and Brain Sciences
Johannes van Erp (2009) Ph.D., Associate Professor of Mathematics
Nicholas Beguin Van Kley (2014) Ph.D., Senior Lecturer of Writing Program
Daniel Willem van Wyk (2019) Ph.D., Research Associate and Research Associate of Mathematics
Diederik J. Vandewalle (1991) Ph.D., Associate Professor of Government
Rekha Sreekumar Varrier (2020) Ph.D., Research Associate of Psychological and Brain Studies
Nataliia Vereshchuk (2021) Ph.D., Research Associate of Chemistry
Lorenza Viola (2004) Ph.D., James Frank Family Professor, Professor of Physics & Astronomy
Ross A. Virginia (1992) Ph.D., Myers Family Professor, Professor of Environmental Studies and Adjunct Professor of Biological Science
Pamela Voekel (2015) Ph.D., Associate Professor of History
John Voight (2013) Ph.D., Professor of Mathematics
Soroush Vosoughi (2018) Ph.D., Assistant Professor of Computer Science
Elsa Voytas (2021) Ph.D., Research Associate and Lecturer of Quantitative Social Science
Tor D. Wagner (2019) Ph.D., Professor of Psychological and Brain Sciences
Hannah Waits (2021) Ph.D., Research Associate of Dickey Center
Kenneth E. Walden (2011) Ph.D., Associate Professor of Philosophy
Devin G. Walker (2016) Ph.D., Assistant Professor of Physics & Astronomy
Dorothy I. Wallace (1987) Ph.D., Professor of Mathematics
Ashley Elyse Walton (2019) Ph.D., Research Associate of Cognitive Sciences
Emily C. Walton (2012) Ph.D., Associate Professor of Sociology
Hui Wang (2020) Ph.D., Research Associate of Physics & Astronomy
Jiajing Wang (2021) Ph.D., Assistant Professor of Anthropology
Zili Wang (2020) Ph.D., Research Associate and Lecturer of Mathematics
Jessica DeSimone Warren (2019) Ph.D., Lecturer of Biological Sciences
Michelle R. Warren (2006) Ph.D., Senior Advisor to the Dean for Faculty Development, Diversity, and Inclusion, Professor of Comparative Literature
Ikuo W. Washburn (Watanabe) (1993) M.A., Senior Lecturer of Asian Societies Cultures and Languages
Dennis Washburn (1992) Ph.D., Burlington Northern Foundation Professorship in Asian Studies in Honor of Richard M. Bressler '52, Professor of Comparative Literature, Asian Societies Cultures and Languages, and Film & Media Studies
John M. Watanabe (1985) Ph.D., Associate Professor of Anthropology
David L. Webb (1992) Ph.D., Professor of Mathematics
D.G. Webster (2009) Ph.D., Associate Professor of Environmental Studies
John W Welborn (2016) Ph.D., Lecturer of Economics and Political Economy Project
Catherine O. Welder (2009) Ph.D., Senior Lecturer of Chemistry
Janina Wellmann (2020) Ph.D., Instructor of Chemistry
Jacqueline Desiree Wernimont (2018) Ph.D., Distinguished Professor in Digital Humanities and Social Engagement, Associate Professor of Women's, Gender, and Sexuality Studies
Sean Jeremy Westwood (2015) Ph.D., Associate Professor of Government
Lindsay J. Whaley (1993) Ph.D., Professor of Classics and Linguistics
Thalia P. Wheatley (2006) Ph.D., Lincoln Filene Professorship in Human Relations, Professor of Psychological and Brain Sciences
Charles J. Wheelan (2006) Ph.D., Senior Lecturer of Education and PBPL and Political Economy Project
James Daniel Whitfield (2016) Ph.D., Assistant Professor of Physics & Astronomy, Adjunct Assistant Professor of Chemistry
Melissa Whitley (2021) Ph.D., Research Associate in the Society of Fellows and Lecturer of Women's, Gender, and Sexuality Studies
Verena Christina Wiedemann (2022) M.A., Research Fellow of Economics
Dean E. Wilcox (1984) Ph.D., Professor of Chemistry
Darryl Alan Wilkinson (2019) Ph.D., Assistant Professor of Religion
Barbara E. Will (1994) Ph.D., A. and R. Newbury Professorship, Professor of English and Creative Writing
Dana P. Williams (1985) Ph.D., Benjamin P. Cheney Professor in Mathematic
Mark J. Williams (1993) Ph.D., Associate Professor of Film & Media Studies
Elizabeth Joan Wilson (2017) Ph.D., Director of the Irving Institute, Professor of Environmental Studies
John D Wilson (2009) M.Arch, Senior Lecturer of Studio Art
J. Kathleen Wine (1982) Ph.D., Associate Professor of French & Italian
Peter Winkler (2004) Ph.D., William Morrill Professorship, Professor of Mathematics and Computer Science
John S. Winn (1982) Ph.D., Professor of Chemistry, Emeritus, and Research Professor of Chemistry
Bryan C. Winston (2019) Ph.D., Research Associate of History
Jonathan M Winter (2013) Ph.D., Associate Professor Geography, Adjunct Assistant Professor of Earth Sciences
Shawn S Winter (2011) Ph.D., Lecturer of Psychological and Brain Sciences
Viktor Lukas Witkowski (2015) M.F.A., Lecturer of Studio Art
Lee A. Witters (2002) M.D., Professor of Biological Sciences
William C. Wohlforth (2000) Ph.D., Daniel Webster Professorship, Professor of Government
George L. Wolford (1969) Ph.D., Professor Psychological and Brain Sciences, Emeritus, and Senior Lecturer of Psychological and Brain Sciences
Chuen Ming Mike Wong (2020) Ph.D., Research Associate and Lecturer of Mathematics
Samantha Carol Wray (2020) Ph.D., Research Assistant Professor of Linguistics and Psychological and Brain Sciences
Kevin Wright (2013) Ph.D., Assistant Professor of Physics & Astronomy
Richard A. Wright (1985) Ph.D., Orvil Dryfoos Professorship in Public Affairs, Professor of Geography
Jimmy Wu (2007) Ph.D., Professor of Chemistry
Pianpian Wu (2020) Ph.D., Research Associate of Biological Sciences
Yi Wu (2020) Ph.D., Research Associate in the Society of Fellows and Lecturer of Comparative Literature
Martin N. Wybourne (1997) Ph.D., Francis and Mildred Sears Professorship in Physics, Professor of Physics & Astronomy
Qiong Xie (2017) Ph.D., Assistant Professor of Asian Societies Cultures and Languages
Shiyong Xiong (2019) Ph.D., Research Associate and Research Associate of Computer Science
Lei Yan (2019) M.A., Senior Lecturer of Asian Societies Cultures and Languages
Xing-Dong Yang (2015) Ph.D., Assistant Professor of Computer Science
Robert Alan Yelle (2021) Ph.D., Instructor of Harris-German Visiting Prof
Paul David Young (2014) Ph.D., Associate Professor of Film & Media Studies
Melissa F. Zeiger (1985) Ph.D., Associate Professor of English and Creative Writing
Wenlin Zhang (2020) Ph.D., Assistant Professor of Chemistry
Youzhi Zhang (2020) Ph.D., Research Associate of Computer Science
Yu Zhao (2018) Ph.D., Research Associate of Computer Science
Olga Zhaxybayeva (2012) Ph.D., Associate Professor of Biological Sciences, Adjunct Associate Professor of Computer Science
Yakun Zheng (2019) B.S., Instructor of Biological Sciences
Bohan Zhou (2020) Ph.D., Research Associate of Mathematics
Xia Zhou (2013) Ph.D., Associate Professor of Computer Science
Bo Zhu (2018) Ph.D., Assistant Professor of Computer Science
Jonathan Zinman (2005) Ph.D., R. Stephen Cheheyl Professorship, Professor of Economics
Eric W. Zitzewitz (2007) Ph.D., Professor of Economics
Thomas Rhodes Zoellner (2017) M.A., Lecturer of MALS - Masters in Liberal Studies
Andrea Zoller (2021) M.A., Instructor of French & Italian
Nathan Gaspar Zorzi (2021) Ph.D., Assistant Professor of Economics

Academic Administrators

Philip J. Halon, Ph.D., President
David F. Kotz (1991) Ph.D., Interim Provost, Pat and John Rosenwald Professorship, Professor of Computer Science
Elizabeth F. Smith (1998) Ph.D., Dean of the Faculty of Arts and Sciences, The Paul M. Dauten, Jr. Professorship, Professor of Biological Sciences
John M. Carey (2003) Ph.D., Associate Dean for the Social Sciences, John Wentworth Professorship in the Social Sciences, Professor of Government
Matthew F. Delmont (2018) Ph.D., Guarini Associate Dean of Interdisciplinary Programs and International Studies, Sherman Fairchild Distinguished Professorship in Emerging Fields, Professor of History
Samuel S. Levey (1997) Ph.D., Associate Dean for the Arts and Humanities, Professor of Philosophy
Jane E. G. Lipson (1987) Ph.D., Associate Dean for the Sciences, Albert W. Smith Professorship in Chemistry
F. Jon Kull (2001) Ph.D., Dean of School of Graduate and Advanced Studies, Rogers Professorship, Professor of Chemistry
Kathryn J. Lively (2002) Ph.D., Dean of the College, Professor of Sociology
Mary Lou Aleskie (2017) Howard L. Gilman '44 Director of the Hopkins Center
Jason Barabas (2020) Ph.D., Director of Rockefeller Center and Professor of Government
Sonu S. Bedi (2007) Ph.D., Hans '80 and Kate Morris Director of the Ethics Institute, Joel Parker 1811 Professorship in Law and Political Science, Professor of Government
Rebecca E. Biron (2006) Ph.D., Director of the Leslie Center, Professor of Spanish and Portuguese
Lee Coffin (2016) Ed.M., Vice Provost for Enrollment and Dean of Admissions and Financial Aid
Mitchel W. Davis (2017) B.A., Vice President and Chief Information Officer, Information, Technology & Consulting
James E. Dobson (2012) Ph.D., Director of the Institute for Writing and Rhetoric, Assistant Professor of English and Creative Writing
Christianne Hardy, Interim Director to the Dickey Center
Daveen Litwin (2016) M.A., Rabbi, Dean and Chaplain of the William Jewett Tucker Center
Susanne Mehrer (2016) M.B.A., Dean of Libraries and Librarian of the College
Eric Parsons (2016) M.P.A., Registrar for the Arts and Sciences
Scott D Pauls (2001) Ph.D., Director of the Dartmouth Center for for the Advancement of Learning, Professor of Mathematics
Daniel N. Rockmore (1991) Ph.D., Director of the Neukom Institute, William H. Neukom 1964 Distinguished Professor of Computational Science, Professor of Mathematics and Computer Science
Peter P. Roby (2021) M.S., Interim Director of Athletics and Recreation
John Stomberg (2016) Ph.D., Virginia Rice Kelsey 1961s Director of the Hood Museum of Art
Elizabeth Joan Wilson (2017) Ph.D., Director of the Irving Institute, Professor of Environmental Studies
James E. Dobson (2012) Ph.D., Director of the Institute for Writing and Rhetoric, Assistant Professor of English and Creative Writing

Emeritus Faculty

Note: The listing is alphabetical; the date indicates the year of initial appointment.

Sarah Allan (1995) Ph.D., Professor of Asian & Middle Eastern Languages and Literatures, Emerita
Hoyt S. Alverson (1968) Ph.D., Professor of Anthropology, Emeritus
Jon H. Appleton (1967) M.A., Professor of Music,
Emeritus
Martin A. Arkowitz (1964) Ph.D., Professor of Mathematics, Emeritus
James L. Aronson (1998) Ph.D., Professor of Earth Science, Emeritus
David G. Becker (1982) Ph.D., Associate Professor of Government, Emeritus
Edward M. Berger (1975) Ph.D., Professor of Biological Sciences, Emeritus
Susan R. Blader (1978) Ph.D., Associate Professor of Asian & Middle Eastern Languages and Literatures, Emerita
Lynda E. Boose (1985) Ph.D., Professor of English and Creative Writing, Emerita
Edward M. Bradley (1963) Ph.D., Professor of Classics, Emeritus
Raul Bueno (1986) Ph.D., Professor of Spanish and Portuguese and Latin American, Latino, and Caribbean Studies, Emeritus
Laura E. Conkey (1982) Ph.D., Associate Professor of Geography and Women's, Gender, and Sexuality Studies, Emerita
Katharine Conley (1992) Ph.D., Professor of French & Italian and Comparative Literature and Women's, Gender, and Sexuality Studies, Emerita
Kathleen A. Corrigan (1983) Ph.D., Associate Professor of Art History, Emerita
Jonathan V. Crewe (1990) Ph.D., Professor of English and Creative Writing and Comparative Literature, Emeritus
Lewis A. Crickard (1987) M.F.A., Professor of Theater, Emeritus
William B. Dade (2003) Ph.D., Associate Professor of Earth Science, Emeritus
Jere R. Daniell (1964) Ph.D., Professor of History, Emeritus
Margaret H. Darrow (1980) Ph.D., Professor of History and Women's, Gender, and Sexuality Studies, Emerita
Robert L. Drysdale (1978) Ph.D., Professor of Computer Science, Emeritus
Bruce Duncan (1969) Ph.D., Professor of German Studies, Emeritus
Rogers Elliott (2001) Ph.D., Research Professor of Psychological and Brain Sciences, Emeritus
Kirk M. Endicott (1982) D.PHIL., Professor of Anthropology, Emeritus
Hans M. Ermarth (1970) Ph.D., Professor of History and Jewish Studies, Emeritus
Robert A. Fesen (1989) Ph.D., Professor of Physics & Astronomy, Emeritus
William A. Fischel (1973) Ph.D., Professor of Economics, Emeritus
Carol L. Folt (1983) Ph.D., Professor of Biological Sciences, Emerita
Linda L. Fowler (2003) Ph.D., Professor of Government, Emerita
Nancy K. Frankenberry (1977) Ph.D., Professor of Religion, Emerita
Andrew C. Garrod (1985) Ed.D., Professor of Education, Emeritus
Gene R. Garthwaite (1968) Ph.D., Professor of History, Emeritus
Gretchen H. Gerzina (2005) Ph.D., Professor of English and Creative Writing, Emerita
John J. Gilbert (1966) Ph.D., Professor of Biological Sciences, Emeritus
Mary Jean Green (1974) Ph.D., Professor of French & Italian, Emerita
Ronald M. Green (1969) Ph.D., Professor of Religion, Emeritus
Raymond L. Hall (1972) Ph.D., Professor of Sociology, Emeritus
Ernest Hebert (1987) B.A., Professor of English and Creative Writing, Emeritus
James A. W. Heffernan (1965) Ph.D., Professor of English and Creative Writing, Emeritus
Robert G. Henricks (1976) Ph.D., Professor of Religion, Emeritus
Lynn A. Higgins (1976) Ph.D., Professor of French & Italian, Emeritus
Richard T. Holmes (1967) Ph.D., Professor of Biological Sciences, Emeritus
Howard C. Hughes (1980) Ph.D., Professor of Psychological and Brain Sciences, Emeritus
Cynthia Huntington (1990) M.A., Professor of English and Creative Writing, Emerita
G. Christian Jernstedt (1967) Ph.D., Professor of Psychological and Brain Sciences, Emeritus
Keala J. Jewell (1986) Ph.D., Professor of French & Italian and Comparative Literature and Women's, Gender, and Sexuality Studies, Emerita
Gary D. Johnson (1971) Ph.D., Professor of Earth Science, Emeritus
Jim M. Jordan (1980) Ph.D., Professor of Art History, Emeritus
Konrad O. Kenkel (1974) Ph.D., Associate Professor of German Studies, Emeritus
Francis Kennedy (1999) Ph.D., Professor of Engineering Sciences, Emeritus
Joy Kenseth (1976) Ph.D., Professor of Art History, Emerita
Robert E. Kleck (1966) Ph.D., Professor of Psychological and Brain Sciences, Emeritus
John M. Kopper (1986) Ph.D., Professor of Russian and Comparative Literature, Emeritus
Kenneth A. Korey (1972) Ph.D., Associate Professor of Anthropology, Emeritus
Richard L. Kremer (1985) Ph.D., Associate Professor of History, Emeritus
Paul D. Lagomarsino (1974) Ph.D., Associate Professor of History, Emeritus
Albert J. LaValley (1984) M.A., Professor of Film & Media Studies and Russian and Comparative Literature, Emeritus
Walter E. Lawrence III (1971) Ph.D., Professor of Physics & Astronomy, Emeritus
Amy L. Lawrence (1988) Ph.D., Professor of Film & Media Studies, Emerita
Robert N. Leaton (1964) Ph.D., Professor of Psychological and Brain Sciences, Emeritus
David M. Lemal (1965) Ph.D., Professor of Chemistry, Emeritus
Nancy P. Marion (1976) Ph.D., Professor of Economics, Emerita
Cleopatra Mathis (1982) M.F.A., Professor of English and Creative Writing, Emerita
David C. Montgomery (1984) Ph.D., Professor of Physics & Astronomy, Emeritus
Delo E. Mook II (1970) Ph.D., Professor of Physics & Astronomy, Emeritus
James H. Moor (1972) Ph.D., Professor of Philosophy, Emeritus
Benjamin F. Moss (1988) M.F.A., Professor of Studio Art, Emeritus
Hua-yuan L. Mowry (1975) Ph.D., Associate Professor of Asian Societies Cultures and Languages, Emeritus
Marysa Navarro (1968) Ph.D., Professor of History and Latin American, Latino, and Caribbean Studies, Emerita
Melinda P. O'Neal (1979) D.M., Professor of Music, Emerita
David R. Peart (1985) Ph.D., Professor of Biological Sciences and Environmental Studies, Emeritus
Larry Polansky (1990) M.A., Professor of Music, Emeritus
Ulrike Rainer (1983) Ph.D., Associate Professor of German Studies, Emeritus
Louis A. Renza (1970) Ph.D., Professor of English and Creative Writing, Emeritus
Jeremy B. Rutter (1976) Ph.D., Professor of Classics, Emeritus
M. Anne Sa’adah (1984) Ph.D., Professor of Government, Emerita
Peter C. Saccio (1966) Ph.D., Professor of English, Emeritus
Barry P. Scherr (1974) Ph.D., Professor of Russian and Film & Media Studies, Emeritus
John T. Scott (1977) Ph.D., Professor of Economics, Emeritus
William C. Scott (1966) Ph.D., Professor of Classics, Emeritus
Kenneth E. Shewmaker (1967) Ph.D., Professor of History, Emeritus
Brenda R. Silver (1972) Ph.D., Professor of English and Creative Writing, Emeritus
Roger H. Soderberg (1962) Ph.D., Professor of Chemistry, Emeritus
Margaret E. Spicer (1974) M.F.A., Professor of Theater, Emeritus
Leo Spitzer (1967) Ph.D., Professor of History and Jewish Studies, Emeritus
William Summers (1984) Ph.D., Associate Professor of Music, Emeritus
Virginia E. Swain (1978) Ph.D., Professor of French & Italian and Comparative Literature, Emerita
Marsha Swislocki (1977) Ph.D., Associate Professor of Spanish and Portuguese and Comparative Literature, Emerita
James H. Tatum (1969) Ph.D., Professor of Classics, Emeritus
Peter W. Travis (1970) Ph.D., Professor of English and Creative Writing and Women's, Gender, and Sexuality Studies, Emeritus
Samuel J. Velez (1976) Ph.D., Associate Professor of Biological Sciences, Emeritus
Roxana M. Verona (1990) Ph.D., Professor of French & Italian and Comparative Literature, Emerita
Keith L. Walker (1976) Ph.D., Professor of French & Italian, Emeritus
Gary A. Wegner (1982) Ph.D., Professor of Physics & Astronomy, Emeritus
Heide W. Whelan (1973) Ph.D., Professor of History, Emeritus
Margaret Williamson (1999) Ph.D., Associate Professor of Classics and Comparative Literature, Emerita
Richard F. Winters (1969) Ph.D., Professor of Government, Emeritus
James E. Wright (1969) Ph.D., Professor of History, Emeritus
David Wykes (1972) Ph.D., Professor of English and Creative Writing, Emeritus
Joseph J. BelBruno (1982) Ph.D., Professor of Chemistry, Emeritus and Research Professor of Chemistry
Robert Ditchfield (1972) D.PHIL., Professor of Chemistry, Emeritus, and Research Professor of Chemistry
Dale F. Eickelman (1989) Ph.D., Professor of Anthropology, Emeritus, and Research Professor of Anthropology
Carolyn S. Gordon (1990) Ph.D., Professor of Mathematics, Emerita, and Research Professor of Mathematics
Mary K. Hudson (1984) Ph.D., Professor of Physics & Astronomy, Emerita, and Research Professor of Physics & Astronomy
Russell P. Hughes (1976) Ph.D., Professor of Chemistry, Emeritus, and Research Professor of Chemistry
Peter A. Jacobi (1997) Ph.D., Professor of Chemistry, Emeritus, and Research Professor of Chemistry
Carl B. Pomerance (2003) Ph.D., Professor of Mathematics, Emeritus, and Research Professor of Mathematics
Thomas A. Spencer Jr (1960) Ph.D., Professor of Chemistry, Emeritus, and Research Professor of Chemistry
John S. Winn (1982) Ph.D., Professor of Chemistry, Emeritus, and Research Professor of Chemistry
Gordon W. Grible (1968) Ph.D., Professor of Chemistry, Emeritus, and Research Professor and Lecturer of Chemistry

DARTMOUTH COLLEGE ORGANIZATION, REGULATIONS, AND COURSES 2021-22
George L. Wolford (1969) Ph.D., Professor Psychological and Brain Sciences, Emeritus, and Senior Lecturer of Psychological and Brain Sciences
Louise E. Hamlin (1990) B.F.A., Professor of Studio Art, Emeritus
James E. Brown (1990) M.F.A., Senior Lecturer of Film & Media Studies, Emeritus
John L. Campbell (1996) Ph.D., Professor of Sociology, Emeritus
Thomas H. Cormen (1992) Ph.D., Professor of Computer Science, Emeritus
Ehud Z. Benor (1991) Ph.D., Associate Professor of Religion, Emeritus
Patricia McKee (1979) Ph.D., Professor of English, Emerita
Roger D. Sloboda (1977) Ph.D., Professor of Biological Sciences, Emeritus
Steven F. Venti (1982) Ph.D., Professor of Economic Policy, Emeritus
Wen Xing (1999) Ph.D., Professor of Asian Societies, Cultures, and Languages, Emeritus

Emeritus Presidents
Jim Yong Kim, Ph.D.
James Wright, Ph.D.

Divisions of the Faculty
For purposes of administration the Departments of the Faculty are grouped into three Divisions, as follows:

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<th>Arts and Sciences</th>
<th>Biological Sciences</th>
<th>Anthropology</th>
<th>Creative Writing</th>
<th>Earth Sciences</th>
<th>Government</th>
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<td>History [ARTH</td>
<td>Chemistry [CHEM]</td>
<td>Geographies</td>
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<td>Chemistry [CHEM]</td>
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Each of these Departments is represented by its Chair on the corresponding Divisional Council, which has general supervision over matters affecting the Division. Most of the Departments offer one or more majors.

A fourth division consists of the several Interdisciplinary Programs.

The Interdisciplinary Programs
- African and African American Studies [AAAS]
- Asian Societies, Cultures, and Languages [ASCL]
- Cognitive Science [COGS]
- Comparative Literature [COLT]
- Environmental Studies [ENVS]
- Jewish Studies [JWST]
- Latin American, Latino and Caribbean Studies [LACS] and [LATS]
- Linguistics [LING]
- Middle Eastern Studies [MES]
- Native American Studies [NAS]
- Quantitative Social Science [QSS]
- Women’s, Gender, and Sexuality Studies [WGSS]

The Chair of each Interdisciplinary Program serves on the Council on Interdisciplinary Programs; this council has general supervision over matters affecting the Interdisciplinary Programs. Several of the Programs offer majors or minors.
Undergraduate Study
Several temporary adjustments have been made related to the worldwide pandemic. See the global health emergency information page.

Admission
Applicants for first year admission have two deadline options. Candidates applying via the Early Decision program must submit applications by November 1 of the calendar year prior to the year in which they expect to enter college. Early Decision candidate notification takes place in mid-December. Candidates applying via the Regular Decision program must submit applications by January 2 of the calendar year in which they expect to enter college. Regular Decision candidate notification takes place at the end of March.

Candidates for transfer admission must apply by March 1 of the calendar year in which they expect to matriculate. Transfer candidate notification takes place in May.

New students enroll only in the fall term.

A fuller statement of admission principles, policies, and procedures may be found online at http://admissions.dartmouth.edu. In addition, prospective first-year students may request more information about Dartmouth by using the online request form at https://apply.dartmouth.edu/register/signmeup.

Academic Honor
On February 13, 1962, the Dartmouth College Faculty passed unanimously the following resolution; the text was updated by Faculty vote on May 17, 1999:

Whereas, on February 1, 1962, a majority vote of the student body adopted the principle that ‘all academic activities will be based on student honor’ and thereby accepted the responsibility, individually and collectively, to maintain and perpetuate the principle of academic honor.

Therefore be it Resolved that,

I. The Faculty of Dartmouth College, in recognizing the responsibility of students for their own education, assumes intellectual honesty and integrity in the performance of academic assignments, both in the classroom and outside. Each student upon enrollment at Dartmouth College accepts this responsibility with the understanding that any student who submits work which is not his or her own violates the purpose of the College and is subject to disciplinary actions, up to and including suspension and separation.

II. The Faculty recognizes its obligation: (a) to provide continuing guidance as to what constitutes academic honesty; (b) to promote procedures and circumstances which will reinforce the principle of academic honor; (c) to review constantly the effective operation of this principle.

III. The practice of proctoring examinations is hereby discontinued, though a teacher may be present at appropriate times for the purpose of administration or to answer questions.

IV. The Committee on Standards shall undertake: (a) to publish and interpret the Resolution on Academic Honor to the student body each year; (b) to adjudicate reported violations according to established procedures; (c) to review constantly the effective operation of this principle and, if necessary, make recommendations to the Faculty for maintaining the spirit of this Resolution.

The faculty, administration and students of Dartmouth College recognize the Academic Honor Principle as fundamental to the education process. Any instance of academic dishonesty is considered a violation of the Academic Honor Principle and may subject a student to disciplinary action up to and including separation from the College.

Fundamental to the principle of independent learning are the requirements of honesty and integrity in the performance of academic assignments, both in the classroom and outside. Dartmouth operates on the principle of academic honor, without proctoring of examinations. Any student who submits work which is not his or her own, or commits other acts of academic dishonesty, violates the purposes of the College and is subject to disciplinary actions, up to and including suspension or separation.

The Academic Honor Principle depends on the willingness of students, individually and collectively, to maintain and perpetuate standards of academic honesty. Each Dartmouth student accepts the responsibility to be honorable in the student’s own academic affairs, as well as to support the Principle as it applies to others.

Any student who becomes aware of a violation of the Academic Honor Principle is bound by honor to report the violation to an appropriate authority, such as an instructor, department or program Chair, academic dean, or judicial affairs. If Dartmouth students stand by and do nothing, both the spirit and operation of the Academic Honor Principle are severely threatened.
A number of actions are specifically prohibited by the Academic Honor Principle. These focus on plagiarism and on academic dishonesty in the taking of examinations, the writing of papers, the use of the same work in more than one course, and unauthorized collaboration. This list of examples covers the more common violations but is not intended to be exhaustive.

1. Examinations. Any student giving or receiving assistance during an examination or quiz violates the Academic Honor Principle.

2. Plagiarism. Any form of plagiarism violates the Academic Honor Principle. Plagiarism is defined as the submission or presentation of work, in any form, that is not a student’s own, without acknowledgment of the source.

With specific regard to papers, a simple rule dictates when it is necessary to acknowledge sources. If a student obtains information or ideas from an outside source, that source must be acknowledged. Another rule to follow is that any direct quotation must be placed in quotation marks, and the source immediately cited.

Students are responsible for the information concerning plagiarism found in Sources and Citation at Dartmouth College at http://www.dartmouth.edu/~sources/.

3. Use of the same work in more than one course.

Submission of the same work in more than one course without the prior approval of all professors responsible for the courses violates the Academic Honor Principle.

The intent of this rule is that a student should not receive academic credit more than once for the same work product without permission. The rule is not intended to regulate repeated use of an idea or a body of learning developed by the student, but rather the identical formulation and presentation of that idea. Thus the same paper, computer program, research project or results, or other academic work product should not be submitted in more than one course (whether in identical or rewritten form) without first obtaining the permission of all professors responsible for the courses involved. Students with questions about the application of this rule in a specific case should seek faculty advice.

4. Unauthorized Collaboration. Whether or not collaboration in course work (labs, reports, papers, homework assignments, take-home tests, or other academic work for credit) is permitted depends on expectations established in individual courses. Students are sometimes encouraged to collaborate on laboratory work, for example, but told to write their laboratory reports independently. Students should presume that collaboration on academic work is not permitted, and that submission of collaborative work would constitute a violation of the academic honor principle, unless an instructor specifically authorizes collaboration.

Students should not presume that authorization in one class applies to any other class, even classes in the same subject area. Students should discuss with instructors in advance any questions or uncertainty regarding permitted collaboration.

Faculty Guidelines for Responding to Violations of the Academic Honor Principle

Voted by the Faculty of Arts and Sciences, May 23, 1983:

An instructor who suspects that a student may have violated the Academic Honor Principle of the College should observe the following guidelines:

1. The instructor may want to discuss the suspected violation with the student(s) in order to determine that there has been no misunderstanding between the instructor and the student(s).

2. The instructor is strongly encouraged to test the validity of his/her suspicion by consulting a colleague or the department/program chair.

3. If, after consultation, the instructor believes that the suspicion is valid, the instructor should immediately bring the matter to the attention of the COS and should inform the department/program chair. Under no circumstances should the instructor who suspects a violation of the Academic Honor Principle attempt to resolve the matter independently or in camera with the student in question.

Requirements for the Degree of Bachelor of Arts

The degree of Bachelor of Arts is awarded by the Board of Trustees to qualified students who have been recommended by the Faculty. Certain changes in degree requirements, which take effect for the Class of 1998 and later classes, were voted by the Faculty and Trustees in 1992; members of the Class of 1997 and earlier classes should consult previous editions of this Catalog for details of the distribution and major requirements as they apply to them.

The degree requirements, given in detail below, fall into several basic categories: Residence (fall, winter, and spring of the first and year and summer following the sophomore year and two terms of senior year), Course Count (35 courses passed), Specific Course Requirements (including Writing and First-Year Seminar, Foreign Language and General Education requirements), a Physical Education Requirement, and a Major Requirement. The details of each of these requirements are given in the following sections as they apply to students who matriculated as first-year students. Students who matriculated at Dartmouth after attending at another institution of higher education should note the modifications of the graduation requirements that apply to them. To matriculate is to be accepted by Admissions and to be enrolled as a full time degree-seeking student at Dartmouth College. Students
I. A student must fulfill the academic requirements of the College and must, as an absolute minimum, complete six terms in residence, registered and enrolled in courses. (Terms spent elsewhere while enrolled in absence in the various Dartmouth off-campus programs do not serve for any part of this requirement, nor do exchange or transfer programs.) A student must be in residence for all three terms of the first year, for the summer term following the sophomore year, and for two terms of the senior year, in every case being registered and enrolled in courses. A student will normally be enrolled for twelve terms but will be allowed thirteen if two of these are summer terms. For further details and information regarding certain exceptions, see the section on Enrollment Patterns.

II. A student must pass thirty-five courses, although this number may be reached in part by credits transferred from another institution. No credit will be awarded for a course dropped or withdrawn from before completion; unless the withdrawal is authorized, the course will be included with a failing grade in the student’s cumulative average. No more than eight courses passed with the grade of D (including those received under the Non-Recording Option) may be counted toward graduation. No more than 17 transfer courses may be counted toward graduation.

No student may count toward graduation more than a combined total of eight final standings of CT (Credit), NC (No Credit), NR (Non-Recorded from courses under the Non-Recording Option), and E (when resulting from courses under the Non-Recording Option). NOTE: CT and NC courses earned spring term 2020 are not included in this count.

A student otherwise eligible for graduation but not in good academic standing as a result of their performance in the last term of enrollment preceding intended graduation may graduate only with the approval of the Committee on Standards. No student may graduate with the standing of Incomplete in any course even though the count of courses passed may exceed thirty-five.

Students are subject to the requirements listed in the ORC/Catalog in the year they matriculate. An exception is made for students in good standing who are readmitted after 10 years of absence from the College. These students should contact the Registrar and the chair of the department/program in which they wish to major. The Registrar works with the student to determine appropriate general education requirements, which could be a combination of prior and current requirements. The chair of the major department/program determines appropriate major requirements (and minor requirements, if applicable). An academic plan for graduation is reviewed, possibly modified, and approved by the Committee on Instruction.

III. A student must pass the following courses, although they may be substituted in part by credits on entrance or by proficiency demonstrated then or later. Either a passing letter grade or a CT (Credit) will suffice. The standing NR assigned under the Non-Recording Option will not serve.

1. Writing: Writing 5; Writing 2-3; or Humanities 1-2. Students must complete the requirement by the end of the second term of the first year. Writing 5, Writing 2-3, and Humanities 1-2 are not eligible for use of the Non-Recording Option.

2. First-Year Seminar: One seminar chosen from an approved list which is available on the College website: http://writing-speech.dartmouth.edu/curriculum/writing-courses/first-year-seminars. These seminars, which have Writing 5 (or 2-3) as prerequisite, are designed both to further the student’s proficiency in writing and to provide an opportunity for participation in small group study and discussions with an instructor on a subject of mutual interest. This requirement must be completed during the first year. It is never possible to include a First-Year Seminar as an actual part of a major. No First-Year Seminar may be taken under the Non-Recording Option. Beginning in the 2021-2022 academic year, First-Year Seminars do not satisfy General Education requirements (Distributive or World Culture Requirements).

3. Language: Foreign language courses numbered 1, 2, and 3; or proficiency equivalent to three terms of study in one foreign language at the college level, or fluency in some language other than English. A student must demonstrate the ability (1) to read with understanding representative texts in a foreign language; and in the case of a modern foreign language, (2) to understand and use the spoken language in a variety of situations. Every student will take qualifying tests upon entrance. If the student passes these examinations, the student will have fulfilled the Foreign Language Requirement. Where no department or program exists to determine a student’s fluency in a language, the Associate Dean of Faculty for the Humanities shall make whatever arrangements are necessary for such a determination.

Unless exempted, as above, a student must normally complete the requirement before the end of the seventh term, either in a language offered for admission or in another language begun at Dartmouth. There are two options: (1) study on the Dartmouth campus in any of the languages offered, or (2) participation in one of Dartmouth’s Language Study Abroad (LSA) programs offered in several of these languages.
Language courses numbered 1, 2, or 3 and other beginning language courses (e.g., Greek 11, 12, and 13) may not serve under any circumstance in partial satisfaction of the General Education requirement. They may not be taken under the Non-Recording Option until the Foreign Language Requirement has been satisfied in another language (and then only if the department/program so authorizes); no course studied off-campus may be taken under the Option. The language requirement may be waived under certain special circumstances.

4. General Education Requirements: There are two separate requirements under this heading: World Culture Requirement and Distributive Requirement. These requirements are outlined below and are explained in detail later (including the codes used to designate which courses fall into which categories.)

a. World Culture Requirement. Each student must take and pass one course in each of three areas: Western Cultures, Non-Western Cultures, and Culture and Identity

b. Distributive Requirement. Each student must take and pass ten courses, as follows:
   - one in the Arts;
   - one in Literature;
   - one in Systems and Traditions of Thought, Meaning, and Value;
   - one in International or Comparative Study;
   - two in Social Analysis;
   - one in Quantitative and Deductive Sciences;
   - two in the Natural Sciences;
   - one in Technology or Applied Science.
   • One of the courses in the Natural Science or Technology categories must have a laboratory, field, or experimental component.

A course may satisfy categories in two of these requirements. For example, a course might satisfy the Western category in the World Culture requirement and the Literature category in the Distributive requirement. Consequently, by careful choice of courses, it is possible to satisfy all of these requirements with just ten courses. Note also that the fact that a course falls within the student’s major department or program does not invalidate its use toward meeting these requirements. Courses satisfying general education requirements must be taken subsequent to college matriculation.

Credits received prior to matriculation, even for courses which would qualify for one or more of these requirements if taken after matriculation, do not count, even though they receive course credit or credit on entrance. Courses satisfying these requirements must be passed with a regular letter grade. Courses which are failed, for which the regular grade has been replaced by NR due to the student’s election of the Non-Recording Option, or for which the grade is CT (Credit) or NC (No Credit) do not satisfy these requirements. Graduate courses (those numbered 100 or higher) never serve in satisfaction of any part of these requirements.

IV. A student must complete satisfactorily the program of Physical Education.

V. A student must receive credit for completion of a major program at least satisfactorily, as certified by the department, program, or other appropriate body supervising the major. The supervising body may in advance require a minimum grade average in the major or other demonstrations of learning in the field of the major. A student may elect a major no earlier than the first day of the fourth term in residence and must do so by the end of the student’s fifth term, or immediately thereafter, depending upon the student’s enrollment pattern. The major is elected by securing the approval of the appropriate department/program using the online major/minor system. See Registrar’s website for more information. A student may change major, or type of major (including the addition of a second major), at any time through the end of the first week of the last term in residence, but not thereafter.

A full statement of the purpose and the various forms of the major follows. Only those courses passed with a letter grade, or a grade of CT (Credit) if previously approved, may be counted in satisfaction of the major. Courses failed or taken under the Non-Recording Option and resulting in a standing of NR (Non-Recorded), may not be used toward completion of the major.

VI. A student is expected to make satisfactory progress at all times toward the degree. All students should be familiar with the requirements for satisfactory academic progress as set forth in the Student Handbook and the Financial Aid Handbook. The Committee on Standards has been empowered by the Faculty to place a student on Risk, Warning, or Probation, or to vote Suspension or Separation for failure to meet the academic standards detailed there.3

2 Under certain circumstances the Registrar will allow an extension of the seven-term rule; such action may allow a student, otherwise prevented by complications of course scheduling, to undertake the Language Study Abroad program.

3 Students who have disciplinary cases pending are not eligible for a degree until the case has been resolved. In any case when penalties are imposed, the case is not resolved until the suspension, period of probation, or other penalty has been completed.
**Students Matriculating after the First Year**

For students who matriculate at Dartmouth after having spent one or two years at another institution, the academic regulations and degree requirements described above (and, in some cases, following) have been modified by vote of the Faculty on January 13, 1986 and May 1, 1989. The modifications are as follows.

1. Maximum number of course credits: Students transferring to Dartmouth will be allowed a maximum credit of 17 courses. No further transfer credits will be allowed after matriculation.

2. The minimum number of enrolled terms will be six for all transfer students.

3. A summer term residence will be required of all transfer students. Students transferring after their first year will be in residence the summer following their sophomore year. Students transferring after their second year will be encouraged to be in residence the summer after their fall matriculation. The Office of Admissions should complete the admissions process early enough to allow students to plan for the appropriate summer in residence and notify students accordingly.

4. No credits will be allowed in departments or programs not represented in the Dartmouth undergraduate curriculum for transfer students.

5. Non-Recording Option (NRO) and Credit/No Credit (CT/NC) elections: Students entering after their first year will be allowed 2 NR’s and a total of 6 CT/NC plus NR’s. Students entering after their second year will be allowed 1 NR and a total of 4 CT/NC plus NR’s.

6. Two- and Four-Course Terms: Students entering after their first year will be allowed a two-course load in any two terms and a four-course load in any three terms. Students entering after their second year will be allowed a maximum of one two-course load and two four-course loads. Within those limits no permissions are required nor are there changes in tuition.

7. Students admitted after their first year must declare a major and an enrollment pattern according to the deadline for second-year students. Students admitted after their second year must declare a major and file an enrollment pattern during their first term in residence at Dartmouth.

8. Course equivalencies are determined by the Registrar or their designate. In the event of a question concerning the equivalency or appropriateness of a course, the department/program involved will be consulted. Courses applied for major credit must be approved by the major department/program.

9. Degree requirements for transfer students are the same as for all other students, with the exception of the First-Year Seminar, first-year residence, and physical education requirements, which are waived. All transfer students must satisfy the senior residence requirement.

**Degree Audit and Program Planner**

DartWorks is a web-based application accessed on DartHub. It allows students and advisors to plan the student's academic program at Dartmouth. It consists of two components, a Degree Audit tool to help students and advisors monitor a student's progress toward completion of their general education and degree requirements, and a Program Planner for students to declare their majors and minors and to plan their major or minor program with the help of a Faculty Advisor. Most majors are also included in the degree audit.

The Degree Audit displays how courses that have been completed count toward their requirements, and helps students and advisors see what courses and requirements still need to be completed before graduation. The Program Planner allows the student to indicate future courses they plan to take in the major/minor, by term, prior to receiving major/minor approval. It also has other features, such as the ability to compare courses planned versus courses taken. The Faculty Advisor may approve, adjust, or deny a major/minor plan after they review the student's program plan.

See the DartWorks Guides on how to use the Degree Audit tool to monitor your progress towards degree and the Program Planner to declare your major and/or minor.

**Student Information Site-DartHub**

Each student has secure access to a student gateway, DartHub, to conduct many official transactions and to obtain personal academic and financial information.

Students use this system for official transactions such as to check in for each term, elect courses, file an enrollment pattern, order official transcripts, declare a major, and to apply for the degree. Personal academic and financial information such as class schedules, grades, and the DartWorks degree audit and major plan can be viewed here. Students also may use it to access personal financial information and use its alert system as a planning tool. Students are reminded of the Information Services Acceptable Use Policy when using Dartmouth systems.

**Academic Support**

Support for the academic work of individual students is available through numerous offices, programs, and individuals at the College. Included are faculty members who serve as first-year, sophomore or major advisors, the Pre-Major Advising Office, and the Office of the Dean of Undergraduate Students. Dartmouth provides an Integrated
Academic Support Program for first-year students, an Academic Skills Center (including a Tutor Clearinghouse), and a Composition Center. Details may be found in the Student Handbook.

**Accessibility and Course Accommodation Support for Students and Their Faculty**

Dartmouth College adheres to the Americans with Disabilities Act and Section 504 of the Rehabilitation Act to ensure that no otherwise qualified students with disabilities are excluded from or denied the benefits of a Dartmouth collegiate experience. Student Accessibility Services (SAS) is the primary office responsible for implementing academic adjustments, services, and other supports in alignment with these laws for undergraduate students with disabilities. (Graduate and professional students seeking disability-related accommodations and services should refer to [https://home.dartmouth.edu/accessibility](https://home.dartmouth.edu/accessibility) for designated contacts.)

SAS’ primary functions center on supporting undergraduate students with disabilities and their faculty and include:

- Engaging in an interactive process with students and academic partners to determine reasonable course accommodations that do not fundamentally alter essential course requirements.
- Supporting students and instructors with implementation of reasonable course accommodations by providing services such as accommodated exam administration in our Testing Center and text conversion into alternate formats.
- Ensuring equitable access through the provision of reasonable accommodations to Dartmouth’s programs, services, and activities, and promoting an inclusive campus climate.
- Serving as a resource to campus partners and incorporating accessibility into the broader diversity, equity, and inclusion efforts of the College.

Eligibility for services is based on a student’s disability-related need, primarily evidenced by student history and any needed disability documentation. Undergraduate students with disabilities who believe they may need academic adjustments and services are strongly encouraged to connect with SAS early in their academic career. To begin the process, students should visit SAS’ Getting Started page. Students with injuries or other temporary conditions are typically not considered disabled but will likely find SAS’ online resources helpful.

Reasonable accommodations and services are determined on an individualized basis. These may include testing accommodations, notetaking assistance, alternate-format text, real-time captioning/Sign Language interpreting, assistive technology, mobility assistance, and/or others. Because many students’ accommodations require technology, no-technology policies in courses represent a barrier to access. Regarding one of the most common technology accommodations, the office of the Dean of the Faculty of Arts & Sciences and SAS have determined that,

1. Some students should be permitted to audio-record class sessions because of a documented accommodation authorized by SAS.
2. There are restrictions on the use of such recordings including the fair-use policy (see [https://students.dartmouth.edu/student-accessibility/faculty-staff/adjustments/notetaking-permission-audio-record](https://students.dartmouth.edu/student-accessibility/faculty-staff/adjustments/notetaking-permission-audio-record)), and
3. Such recordings must be destroyed at the end of the course.

Faculty who wish to discuss their course technology use policies or universal design to readily incorporate common accommodations into their courses should contact Learning.Design.Tech@Dartmouth.edu or DCAL@Dartmouth.edu.

Students and faculty have rights and responsibilities in the reasonable accommodation process. For instance, students need to request any approved accommodations in a timely manner and notify their instructors as early as possible. Please see student rights and responsibilities and faculty rights and responsibilities for more information. Students, faculty, staff, and others are always invited to visit the SAS website, email Student.Accessibility.Services@Dartmouth.edu, or call 603-646-9900.

If a student believes that a necessary academic adjustment has been denied, that a policy/procedure violation may have occurred, or that they have otherwise been subject to disability-related discrimination, the student should review Dartmouth’s informal resolution and formal appeal processes to learn more about their options.

**Language Requirement Waiver**

The Dartmouth College Language requirement is described in sub-section III.3. of this catalog section entitled “Requirements for the Degree of Bachelor of Arts (p. 36).” Under certain circumstances, the Language requirement may be waived for a student who has a substantiated disability-related need for a waiver. Normally, such a waiver will not be granted in the absence of (1) a verified disability, (2) sufficient information about the petitioner’s disability-related need for a waiver confirmed by Student Accessibility Services (SAS), and (3) a recommendation supporting a waiver from SAS. Students who wish to inquire about a disability-related waiver of the Language requirement should contact the Student Accessibility Services office.
Petitions are submitted to the campus Foreign Language Waiver Committee and will be considered only from students with documented disabilities who have not yet completed the language requirement. The Committee generally meets once per term (i.e. four times per year) to consider petitions, and students are notified about the Committee’s decision soon afterward.

**Students who have been granted a Language waiver:**

Once the Foreign Language Waiver Committee has granted a Language waiver to a student, the following occurs:

1. The student is relieved from the Language requirement.

2. All grades for elementary non-English language courses will not be incorporated into the student’s cumulative grade point average. This provision is retroactive, so there may be effects on a student’s existing cumulative grade point average. Students’ transcripts will designate those grades and note that they are not incorporated into the grade point average, but the transcript will not contain direct information about the reason.

3. Students granted a waiver will be permitted to use the Non-Recording Option in elementary language courses. All the regulations governing use of that option will apply except that students who have received a language waiver are allowed a total of five (5) uses of the Non-Recording Option, two of which can be applied only to introductory courses in the same language. If the grade matches or surpasses a student’s selection, it will appear on the transcript; any grade of NR will count as one of the five uses of the option allowed, and any grade of E will appear on the transcript. However, no grade assigned in the course will be incorporated into the student’s grade point average.

Contact Student Accessibility Services for more information.

**General Education Requirements: Categories**

This section describes the categories of the General Education requirement. The following section addresses some procedural matters regarding these requirements.

1. **World Culture Requirement.** All Dartmouth undergraduates must satisfactorily complete one course from each of the three areas listed below:

   a. **Western Cultures (W).** The cultures of the classical Judeo-Christian and Greco-Roman Mediterranean, and of Europe and its settlements. The disciplines of the Arts and Sciences as they are studied at Dartmouth developed in these cultures, as did the institution of the liberal arts college itself. For this reason, Dartmouth students are required to take at least one course with a focus on the cultures of the West.

   b. **Non-Western Cultures (NW).** Non-Western cultures, including those with a history of colonialism. The world in which Dartmouth graduates will function demands an understanding of its non-Western majority. Knowledge of non-Western peoples, cultures, and histories is thus an increasing practical necessity as well as a form of intellectual enrichment. Courses that satisfy this requirement have as their primary focus understanding the diverse cultures of the non-Western world.

   c. **Culture and Identity (CI).** All students are required to take a course studying how cultures shape and express identities. Courses satisfying this requirement examine how identity categories develop in cultures and as a result of interactions between cultures. Forms of identity to be studied may include but are not limited to those defined by race, gender, sexuality, class, religion, and ethnicity. Courses in this category may study the relations of culture and identity with reference to cultural productions from any part of the world.

2. **Distributive Requirement (Dist).** All Dartmouth undergraduates must satisfactorily complete ten courses divided as indicated below:

   a. **Arts (one course): (ART).** Courses fulfilling this requirement usually focus on one or more art or media forms, using historical, critical, and/or participatory methods. Dartmouth aims to foster creativity, to encourage the acquisition of artistic skills and disciplines, and to equip students with the historical knowledge and interpretive powers that will allow them to be informed participants in the world of the arts and contemporary media.

   b. **Literature (one course): (LIT).** Rigorous critical reading and writing are central to all academic discourse; although these skills are not taught exclusively in literature courses, they are actively cultivated in those courses. Knowledge and appreciation of literary texts, and of the diverse cultural histories embedded in them, remain crucial to any liberal arts education. In recent times, the emergence of literary theory has transformed literary study and broadened the scope of literary criticism to include cultural and interdisciplinary perspectives. Literary theory also poses fundamental questions about the ways in which language and literature represent the world. Courses that satisfy this requirement are usually in the language and/or literature departments.

   c. **Systems and Traditions of Thought, Meaning, and Value (one course): (TMV).** Courses satisfying this
requirement provide students with systematic, critical understanding of philosophical issues or systems of religious belief and practice. They address the ways human beings have conceptualized and put into practice claims about such topics as the meaning of human existence and the nature of truth, knowledge, or morality. Such courses are not restricted to a particular cultural, geographical, or historical focus and may include studies from a wide variety of cultures and time periods.

d. International or Comparative Study (one course): (INT). In addition to understanding the traditions of particular cultures, an educated person needs to be aware that no nation, society, or culture exists in isolation. To an increasing degree, an international dimension informs all human endeavors, including economic, political, social, ideological, religious, and artistic ones. Thus, all students are required to elect one course that considers interrelationships among societies, cultures, or nations and/or the methods or approaches employed in comparative studies. We seek to ensure that Dartmouth students will be internationally as well as nationally informed.

e. Social Analysis (two courses): (SOC). Courses in this category examine theories of individual and social human behavior, methods of social observation and analysis, historical analysis and inquiry, and issues of civic life and public policy. Social scientific and historical analyses are important tools in our efforts to understand ourselves and others, the contemporary world and its past. They also serve an important purpose in the development of public policy. Courses in social analysis familiarize students with the critical interpretation of evidence and such means of investigation as experiments, modeling, observation, comparison, statistical sampling, interviews and surveys, the use of records and artifacts.

f. Quantitative and Deductive Science (one course): (QDS). Mathematical sciences are fundamental to much scientific and social scientific investigation, while the underlying mode of deductive reasoning continues to inform many ways of obtaining knowledge. In this category, students must pass a course in mathematics, in mathematical statistics, or in symbolic logic, the underpinning of mathematical reasoning. Modern mathematics includes areas as diverse as topology, probability, and combinatorics, as well as the more familiar algebra, geometry, and analysis. An understanding of some basic mathematical techniques is essential for appreciating ways in which the world can be visualized and studied. At the same time, such understanding helps in testing the suitability of many of these visualizations and gives tools to examine the fit between natural phenomena and their abstract models.

g. Natural and Physical Science (two courses): (SCI or SLA). These courses introduce students to scientific methods of inquiry as well as research methodology and interpretation. One of these courses must provide a laboratory, experimental, or field component as an integral part of its structure (courses in the Technology and Applied Science category may also be approved as satisfying the one-course laboratory requirement.) An understanding of the basic principles and terminology of science, and of the ways in which scientists obtain, validate, judge, test, and then re-judge information, is an essential form of education for this century and the next. Students should acquire some expertise in scientific discourse: in the ways in which facts are acquired, tested, and challenged, and in some of the scientific principles that help to explain physical, cosmological, chemical, and biological processes. Many science courses are taught with coordinated laboratory activities. In some cases these laboratories take the form of a field trip, outdoor or off-campus, to a site or facility at which the student can examine first-hand some phenomenon, feature, or object.

h. Technology or Applied Science (one course): (TAS or TLA). These courses must include the methodology and theory of applied science, and may consider the social contexts, benefits, and threats of technology. They enable students to understand the process by which the discoveries of basic science have been translated into products, facilities, services, devices, and technical information. These courses address the principles underlying technology or applied science, rather than just making use of technology.

General Education Requirements: Procedures
Certain courses, such as Writing 2, 3, and 5, language courses numbered 1, 2 and 3 or equivalents, Independent Study courses, TUCK courses, and all graduate courses (courses numbered 100 and higher) do not qualify to satisfy any part of the General Education requirements. Beginning in the 2021-2022 academic year, First-Year Seminars do not satisfy General Education requirements (Distributive or World Culture Requirements). All other courses may potentially satisfy one or more of these requirements. Departments and programs must propose their courses for such credit and have the proposals approved by the faculty Committee on Instruction. Courses that have already received such approval are noted in this Catalog with codes described below. The exact category of
each offering appear in the Timetable of Class Listings for each term.

While every effort has been made in this Catalog to provide information that is as accurate and complete as possible with regard to the categories satisfied by courses in the curriculum, it is inevitable that a few changes or additions will occur in the period between the time when this Catalog is published and before students elect courses for a term. Thus information provided in the Timetable of Class Listings for each term will officially supersede that found in this Catalog (or in any other publication such as Department/Program websites). Students should take great care, in particular, to check the distributive and world culture categories listed on the Timetable of Class Listings for the specific term in which they register for a course. These categories may, or may not, match what is listed in this Catalog.

It should be noted that some courses might almost equally well fall into either of two categories. However, with one exception noted below, each course may satisfy only one category for the Distributive requirement, and also only one category for the World Culture requirement. In such situations a decision, which may be somewhat arbitrary, must be made as to which category to select. Students must follow the decision that has been made by the COI; there is no appeal of this decision, nor may students petition (then or later) to have a course count for them in a category other than the one selected by the department or program and approved by the COI. In cases where the category of a course has been changed, the category in effect for the term in which the course was taken will be used.

The following phrase or codes are used in the course listings in this Catalog to indicate the categories for each course:

**World Culture Requirement (WCult):**

- W Western Cultures
- NW Non-Western Cultures
- CI Culture and Identity

**Distributive Requirement (Dist):**

- ART Arts
- LIT Literature
- TMV Systems and Traditions of Thought, Meaning, and Value
- INT International or Comparative Studies
- SOC Social Analysis
- QDS Quantitative and Deduction Sciences
- SCI Natural Sciences (without laboratory component)
- SLA Natural Sciences (with laboratory component)
- TAS Technology or Applied Science (without laboratory component)
- TLA Technology or Applied Science (with laboratory component)

Each course listing in the ORC/Catalog has information on General Education categories. For example, ‘Dist: ART, WCult: NW’ indicates that the course in question satisfies the Art category for the Distributive requirement and the Non-Western category of the World Culture Requirement. If no listing occurs (for example, if WCult does not appear) then the course does not satisfy any part of the requirement in question.

In the Distributive requirement, certain courses satisfy both the International and Comparative Studies category and a second category, and, for example, would be listed in the ORC/Catalog and Timetable as ‘Dist: INT or ART’. However, in each case, a given course can satisfy only one requirement for any individual student (that is, in the example given, either INT or ART but not both). The INT category is the only category under the Distributive requirement that can be combined with another category in this way.

Note that the DartWorks degree audit may indicate that either INT or ART are complete in the example above, regardless of what the student may have ideally chosen. It selects a "best fit." In the end however, as the student progresses, it will adjust.

**The Major**

The purpose of a major is to provide a coherent program of study in a discipline or area of knowledge. The College offers a number of options designed to meet the needs of students in their selected major programs of study. These options, in addition to Standard Departmental Majors and Program majors, include a Modified Major or a Special Major. A Modified Major usually comprises work in two departments or programs with emphasis in one. The Special Major exists to accommodate students who wish to design special interdisciplinary or interdivisional programs of study. It is also possible for a student to have combinations of majors and minors; however, a student cannot exceed two additional majors or minors beyond the required major (for a total of three).

No more than half of courses required for the major, including prerequisites, may be satisfied by transfer.

In planning a major program of study, the student is urged to consider carefully these different options; each is described in detail in the designated section. Consultation with appropriate department or program chairs, advisers, and other faculty members is an important and necessary part of planning a major program. Procedures for students
wishing to file more than one major are described in the Working Rules and Regulations Section.

The Committee on Instruction is empowered, for all types of major, to allow individual and general variations from the usual patterns that will assist a given student or improve a major without damaging the basic concept.

Culminating Experience in the Major
Each department and program includes among its major requirements a culminating activity, normally during the senior year, academically challenging and appropriate to the discipline and mission of the department or program. To this end, the following principles apply:

1. The requirement may involve individual projects (theses, directed research and writing, laboratory research, creative projects), senior seminar(s), group tutorials or colloquia, or some combination of these. If the requirement exclusively involves graded individual projects, a department or program may provide, on a regular basis, an informal but mandatory senior colloquium or set of group tutorials (these would not necessarily need to be graded.) Their goal is to encourage students to exchange ideas, and to share with one another and with members of the faculty reports about progress with their individual projects.

2. The requirement will assume a solid grounding in the substance of the discipline and expect and encourage development of a relatively sophisticated understanding and use of its methods, thereby fostering the student’s ability to articulate his or her work and ideas in writing, oral presentation, and/or discussion.

3. The requirement must be taken for credit and graded. All majors must satisfactorily complete this requirement.

4. The requirement must involve at least one course credit but may take the form of a single project extended over two or three terms (e.g. a 3-term tutorial, laboratory, creative or research/writing project) with credit and grade recorded upon completion of the final term of the project.

5. Departments/programs may offer more than one sort of senior academic activity in order to maintain rational teaching loads for faculty while providing appropriate options to be elected by or designated for students on the basis of their interests and academic achievements.

The implementation of this requirement for each individual major is described under the department or program section in this Catalog.

Standard Departmental or Program Major
The Standard Department or Program Major consists of eight to ten courses in the major subject in addition to those courses prerequisite to the major. (With the agreement of the major department/program at least some of the ‘prerequisite’ courses may be taken after declaring the major.) Prerequisite courses, unlike those that are part of the major, may be taken under the Non-Recording Option and, with the special approval of the department or program, need not necessarily be passed. Every course counted as an actual part of the major must be passed with a recorded letter grade or previously authorized CT; courses completed with standings of NC, NR, and E are not included.

The major must be a unified and coherent whole, not a series of relatively unrelated courses. When appropriate, however, courses from other departments or programs may be substituted for one or more in the area of the major. For instance, an English major often includes as one of the courses a comparative literature offering, or Chemistry, a physics course. However, such courses must serve in satisfaction of the major (not simply as a prerequisite to the major) in the other department or program unless a course has been specifically approved and listed in this Catalog as suitable for the major credit in the department or program of the student’s major. Courses within the major, or offered by the major department or program, satisfy whatever Distributive, World Culture, or Interdisciplinary credits are normally attached to those courses. In other words, these requirements are completely independent of choice of major.

The Department or Program may set a minimum grade average for admission to and/or completion of the major. It may also impose the requirement of a thesis, comprehensive examination, etc.

When a student finishes a standard major as outlined here, the Department or Program determines whether the student has appropriately completed (i.e., passing, or reaching an announced minimum average) the courses of the major declared as part of the program plan, along with other specified requirements. If so, the Department or Program notifies the Registrar of the completion of the major and, accordingly, satisfaction of this requirement for graduation. On graduation, the student’s record indicates completion of the major in, for example, Comparative Literature or Physics. No form of Honors or Distinction in the major is allowable unless the student has undertaken an Honors Program (see the next paragraph), although the student may receive overall (Latin) honors, e.g., Magna cum Laude, as the result of grade point average for all courses taken at Dartmouth.

Students with appropriate grade averages and the desire to do so may apply to do an Honors Program in the major (i.e., Honors Major). By so doing they may on graduation achieve Honors or High Honors in the major; please see The Honors Program and Honors in the Major.

The procedures for declaring a major are outlined under Working Rules and Regulations in the Catalog and on the Registrar's website. After a student declares a major and if
it is approved or denied by the department or program, the student may make updates by consulting the authorized major adviser and submitting a revised major plan.

Modified Major

Departments and Programs may offer modified majors, intended to fit the needs of students who have a definite interest in the major department/program but are also interested in some specific problem or topic, the study of which depends on courses in related fields.

A modified major contains ten courses, six in one field and four in a second field or perhaps in more than one area. It should be planned as a unified, coherent whole, and not consist of a series of unrelated courses. Students must submit a statement to the primary department or program and to the Registrar, explaining their rationale for the courses selected for the modified major. (For those modified majors where the department/program has listed all of the required courses, no rationale need be submitted to the Registrar.) Each department or program sets its own prerequisite and prescribed courses for a Modified Major, within the limit described above, and in greater detail in the following paragraphs. Courses which form part of a modified major are subject to the same requirements described in the section ‘Standard Department Major’ described previously; they must serve in satisfaction of a major in the department or program offering the course unless specifically listed in this Catalog as suitable for a modified major. The Registrar may refuse to accept a modified major that does not meet the ‘unified and coherent’ requirement. If the issue cannot be resolved between the Registrar and the department(s) or programs(s) concerned, it will go to the Committee on Instruction for decision.

The primary part of the major must consist of six courses in a single major-offering department/program (e.g., English, Biology, History, Comparative Literature). The secondary part must consist of four courses, none of which may bear the same department/program title as that of the primary part. (Exception: when a department or program offers officially distinct subjects, as indicated by differing names, an internal modified major may be constructed, e.g., six French and four Italian courses [or the converse].) Furthermore, there will always be at least one course prerequisite to the primary part and normally one or two prerequisites to the secondary part. In case the primary department/program has no prerequisites for its standard major, seven courses are required in the primary part of a modified major.

If a student desires a modified major consisting of the necessary primary part with six courses from one department or program and four courses that are not from a single department or program as the second part, the major requires the approval of the chair (or approved faculty delegate) of the primary department/program only. There is no direct advantage to securing a second approval. When a student completes the major, it will be entered in the permanent record as, for instance, ‘Psychology Modified,’ with no indication of the second part appearing. This is Modified Major "type B."

It is also possible for a student to arrange a Modified Major that will receive full recognition. The student works with one major-offering department/program as the primary and another as the secondary. A non-major-offering department/program may also serve as the secondary field. The major plan must show six courses (plus prerequisites) in the primary field (standing for department or program) and four courses (plus prerequisites) in the secondary field. The various prerequisite courses should be identified. The primary field, as noted, must be a department or program authorized to offer a major; the plan will require the approval of the chair (or faculty delegate) of this department or program indicating specific and overall approval. The plan will also require the approval of the chair (or faculty delegate) for the secondary department or program, again indicating specific and overall approval. Both faculty members, in approving the plan, indicate that the resulting major is an intellectually integrated package; it must not be a ‘major’ and a ‘minor’ with little or no relationship between the two fields. When such a major has been completed, the final records will show a major for, say, ‘History Modified with Economics,’ or ‘English Modified with Women’s Studies.’ This is Modified Major "type A." Please note that a student might take exactly the same courses, but not have the approval by the secondary department or program; if so, the major would be recorded as ‘History Modified’ or ‘English Modified.’

In other respects a modified major is like a standard one. A student may or may not carry out an Honors Program, the potential results being wholly similar. Please be sure to consult the last paragraph of the previous ‘Standard Departmental Major’ section and the Registrar's website for directions on declaring a major.

Special Major

Dartmouth offers a choice of established majors in a broad array of disciplines and interdisciplinary areas that follow contemporary trends in scholarship and meet most students’ interests. In rare cases, when a suitable major, modified major, or combination of majors and minors does not suffice, a student may pursue a special major program of study, provided that it demonstrates intellectual coherence and educational merit and has the approval of two faculty advisors and of the Council for Interdisciplinary Programs (CIP).

After consultation with appropriate faculty member(s), the student wishing to pursue a special major should submit in writing the proposed individualized program of study to the Assistant Dean of the Faculty for Academic Advising Programs. The proposal should state the purpose and objective of the program of study and list ten interrelated
courses, at least one of which must consist of independent study or research in association with a primary advisor. No more than three courses may consist primarily of independent reading, study, or research. If an independent research course in a special major has a minimum GPA requirement, the minimum GPA for the research course becomes a requirement for the special major. For advising assistance, the student should meet with the Assistant Dean of Faculty for Academic Advising Programs.

The proposal must also include a detailed supporting letter from the faculty member who agrees to be the primary advisor and the written endorsement of an additional faculty member who is the intended instructor of at least one of the ten courses, this faculty member to serve as secondary advisor.

In its review of a proposed special major program, the CIP will consider the intellectual coherence of the program and the academic qualifications of the applicant. The CIP will also consider the proposed special major in relation to current major/minor offerings at the College and in comparison to established programs of study at peer institutions. The CIP may, at its discretion, call upon the applicant and the advisors to explain the proposal in person.

Since the CIP does not meet in the summer, students due to file a major in or before the summer term should make application early in the spring term or should file a related standard major from which they may later shift. Petitions for a special major will not normally be considered by the CIP unless the petition is presented early enough to allow the student three full terms of regularly enrolled course work at Dartmouth before graduation.

Application for a special major is a demanding process requiring considerable time and many steps. The applicant should not apply for such a major unless the student has a carefully planned program that is of great personal interest. Often, the goals of the special major may be met through other means, such as major/minor combinations, major modifications, or a senior fellowship. A special major is not likely to be approved if the applicant is simply uninterested in pursuing a standard or modified major. The CIP requires evidence that one of these established majors will not suffice.

Upon approval of a special major, the CIP will notify the student, the advisors, the Assistant Dean of the Faculty for Academic Advising Programs and the Office of the Registrar. The notification letter will indicate the title of the major and list the courses therein. The major advisor and the CIP shall have the right to reconsider a program at any time they may regard the candidate’s work as unsatisfactory. Moreover, changes in the course program of the special major will not be made without the approval of the student’s primary advisor and the Assistant Dean for Academic Advising Programs, who will send confirmation of any changes to the Associate Dean for International and Interdisciplinary Programs, the Office of the Registrar, and the secondary advisor.

Upon the student’s completion of the major program, and upon receipt of a recommendation from the two advisors, the CIP will decide the student’s final standing in the major.

**Senior Fellowships**

By vote of the Board of Trustees, each year there is selected from the junior class a group of students (usually no more than ten, but in exceptional circumstances a maximum of twelve) to be Senior Fellows during the following year. The Senior Fellows are chosen from among students of such intellectual caliber, independence of character, and imaginative curiosity that they have become interested in some personal project of study that will contribute to their own intellectual growth. Every Senior Fellowship must involve a project in which the intellectual scope and breadth of imagination goes beyond that which can be accomplished by taking courses offered in the existing curriculum. These students are permitted all the freedom they are capable of using profitably within the framework of the undergraduate college. The Senior Fellowships constitute recognition of the existence within the College of the kind of responsible individualism that must ever be a part of education in a free, democratic society, and provide exceptional opportunity for self-education for those who are best able to use it.

Selection of the Fellows is made by the President on the recommendation of the Faculty Committee on Senior Fellowships. The regulations governing the selection of these Fellows are as follows:

1. Regulations Concerning the Application to a Senior Fellowship: Members of the junior class may become candidates for Senior Fellowships by individual application. Students applying for Senior Fellowships must have a minimum College grade point average of 3.0 at the time of application. The Committee on Instruction is empowered to make small downward adjustments of this requirement when the Committee on Senior Fellowships strongly supports the application of a candidate who does not quite qualify.

In the planning and execution of this program a Fellow shall be responsible to some member of the Faculty who shall act as adviser. No member of the Faculty may act as principal adviser for more than one Senior Fellow during an academic year. In the exceptional case where two or more students collaborate on a senior fellowship, each student must have a separate principal adviser. If the principal adviser is not a tenure-track member of the Dartmouth faculty, one of the secondary advisers must meet that criterion. The Committee on Senior Fellowships shall exercise general supervision over all programs.
Each candidate must file an application with the Office of Undergraduate Advising & Research not later than the end of the third week of the term, two terms before the Senior Fellowship is to begin. Included in the application shall be an application form, itemized budget, and a detailed description of the project: what the candidate proposes to do, the reasons for doing it, and plans for achieving the goals. The applicant must also submit an academic plan specifying proposed coursework and credits for the fellowship year. The plan must include six courses directly related to the Senior Fellowship project. At least four of the six must be Senior Fellowship courses, with the remainder (if any) from relevant department and program course offerings. The applicant’s potential adviser shall submit to the Committee on Senior Fellowships, in support of the candidate’s application, a comprehensive written statement in which the merit and feasibility of the project, the qualifications of the applicant, and the commitment of the adviser are fully discussed. In addition, two other faculty members must submit recommendation letters for the candidate. If the applicant has a secondary advisor, that faculty member must be one of the recommenders. The Committee on Senior Fellowships will review all applications and select candidates to advance to the interview phase. Selected candidates and their potential advisers will be required to attend an interview with the Senior Fellowship Committee. If the candidate will be off campus in the term during which the application is filed, he or she must notify the Office of Undergraduate Advising & Research at the time of the application so that plans can be made for alternative interview formats. Applicants must plan ahead and discuss their projects with their prospective adviser and the Office of Undergraduate Advising and Research a minimum of one term before the term in which their application will be submitted.

2. Requirements for Senior Fellows: The Fellowship year comprises three terms of registered enrollment, at least one of which must be spent primarily in residence. Fellows are enrolled for four to six Senior Fellow courses over the three terms of the Fellowship, in addition to the other courses specified in their academic plans. Fellows must be enrolled in at least one Senior Fellow course in each of the three terms of the Fellowship. The Senior Fellow courses are graded on a Credit/No Credit basis, and citations are not awarded for Senior Fellow courses. Supervised independent research away from campus will count as an R-term. Senior Fellows are required to complete a total of thirty-five course credits before the end of their Fellowship year. Fellows must complete all distributive and related requirements by the end of the second term of the Fellowship. The total number of courses in the three terms shall not exceed nine. All course enrollments and academic plans must be approved by the Committee on Senior Fellowships.

Fellows shall not be required to complete a major, but may do so if they so desire; they do not receive any reduction in the requirements for a major. No part of the Senior Fellowship work may be submitted for departmental major honors. Students who plan to finish a major in addition to the Senior Fellowship should be aware that they must complete all of the major’s requirements, including a culminating experience if required. The Senior Fellowship does not fulfill the culminating experience requirement for a major.

3. The Fellowship appointment is provisional for one term. Continuation for the remaining two terms requires the Committee on Senior Fellowship's approval of a Fellow’s accomplishments and rate of progress during the first term. In making its determination, the Committee on Senior Fellowships shall evaluate a written report from the student, a detailed analysis and recommendation of the principal adviser, and such additional information as may be required. Senior Fellows should have a plan to complete a major in time for graduation in the event that the Fellowship is discontinued at the end of the first term.

4. Completion of a Senior Fellowship: Senior Fellowship projects are evaluated by three or more examiners. Except in special circumstances, at least one of the members is expected to be from outside the College. At the end of the first term of the Senior Fellowship, the candidate’s primary adviser will recommend two or more examiners, in addition to the primary adviser, to serve on the candidate’s Examining Committee. The Committee on Senior Fellowships must approve the list of examiners. The membership of the Examining Committee may change during the course of the Fellow’s tenure, but any change must be approved by the Committee on Senior Fellowships.

The Examining Committee for each Senior Fellow will make a recommendation to the Committee on Senior Fellowships as to whether the Senior Fellow has completed the Fellowship and whether a completed Fellowship should be considered for Honors or High Honors. The Committee on Senior Fellowships will determine the final standing for each Senior Fellow based on the recommendations of all members of the Examining Committees and will notify the Registrar of these final standings. This standing shall become part of the Fellow’s permanent record. The Fellow must submit a draft of the project to the primary adviser by the end of the third week of the final term of the fellowship. The student’s final Senior Fellowship project must be completed and submitted to the Examining Committee three weeks before the beginning of the final examination period in the third term of the fellowship. Each Fellow must make an oral presentation to the Examining Committee within two weeks of submitting the final project. In addition, each Fellow must present the
final project to the Dartmouth community in a public forum prior to the beginning of the final examination period in the third term of the fellowship.

Senior Fellows who do not meet these deadlines are not eligible for Honors or High Honors. In addition, the Committee on Senior Fellowships may declare failing a Senior Fellow whose work has not been of satisfactory quality. If this occurs, the Senior Fellow will not receive credit for the two Senior Fellowship classes in the third term of the Fellowship. The Committee shall in such cases specify the requirements to be fulfilled before the degree is granted.

5. Tuition Reduction for Senior Fellows: All Senior Fellows are entitled to attend their final term at Dartmouth College tuition-free. Since this provision may have differing effects on individual students, a Senior Fellow has two options:
   a. Tuition remission for the final term (for students receiving financial aid, this will mean a reduction in the self-help package for the entire year); or
   b. A graduate fellowship equal to one term’s tuition. (The amount of the fellowship is based on the tuition in the year in which the student completed the fellowship.)

Senior Fellows who are receiving financial aid should contact the Financial Aid Office to discuss these two options before making a decision. Senior Fellows who are not receiving financial aid should contact Campus Billing and DartCard Services.

The Honors Program

Each of the various forms of major makes available an Honors Program that is required of candidates for Honors or High Honors in the major, the awarding of these to be decided upon when the student’s department/program or other appropriate supervisory body is about to certify to the Registrar the completion of the major.

The program requires work that is clearly greater in depth and scope than that expected in the normal major program. As soon as a student declares a major, the student should receive a description of the Honors Program including requirements for eligibility, the procedure for admission, and the name of the faculty member in charge of the program.

This additional undertaking shall take the form of supervised independent work on an individual or small-group basis to enable students to progress toward an understanding of their major field at an accelerated pace. It includes a thesis — or its equivalent, such as an experimental investigation — as well as the writing of papers or other creative activity suitable to the major subject. Beyond these stipulations a department/program (or other supervisory body) may at its discretion impose such additional requirements as a start upon the Honors Program in the junior year, a more demanding reading program than it requires of regular major students, and the use of honors courses or honors seminars. Examinations in the Honors Program will be regulated by the department or program. Students may receive a maximum of two course credits for participation in the program.

Admission to an Honors Program is by application to and with the consent of the department/program or other supervisory body. Each department or program publishes in this Catalog the criteria and procedure for admission to its Honors Program. The minimum requirement for admission is a grade point average of 3.0 in the major and a 3.0 general College average at the beginning of the senior year or at any other time that an application for admission is made. The Committee on Instruction is empowered to make small downward adjustments of these requirements when a department or program strongly supports the application of a candidate who does not quite qualify.

As indicated above, Honors Programs will vary, but all will include independent, sustained work. Those students who satisfactorily complete the Honors Program with a ‘B+’ average or better will earn Honors recognition in their major or, in appropriate cases, High Honors. High Honors will be granted only by vote of the department or program on the basis of outstanding independent work. Departments and programs are urged to make an interim evaluation of honors students after one term and to recommend the continuation of those students only whose work demonstrates the capacity for satisfactory (B+) work. Students who satisfactorily complete the Honors Program will have entered on their permanent record, e.g., High Honors in Chemistry, or Honors in History.

No record will be kept for completion of an Honors Program in the absence of the awarding of Honors or High Honors, since the department or program has thereby indicated that the performance was not ‘satisfactory’ (in the applied sense of the word).

Honors work in the Special Major requires a recommendation from the student’s two advisers with full description of the planned approach to the Council on Interdisciplinary Studies; this recommendation must be submitted in time for the Committee to make its decision by October 1 of the senior year.

Students not meeting the usual requirements for the Honors Program may seek special admission to an Honors Program with department or program support and approval of the Committee on Instruction.

The Minor

Students who wish to elect a minor must officially sign up for it no later than the end of the first week of the last term in residence prior to graduation (and after they have an approved major on their record.)
A student cannot exceed two additional majors or minors beyond the required major (for a total of three). If the minor has been completed at the time of graduation, it will then be noted on the student’s transcript, but the fact that a student is working toward a minor will not appear on the transcript prior to graduation. It will, however, appear on the student's degree audit.

Minors may be offered by departments, programs, or groups of faculty, and must be approved by the Faculty. A minor consists of at least six courses, no more than two of which may be designated as prerequisites (although more than two prerequisites may be required). The courses beyond prerequisite must be suitable for the major in those departments and programs offering a major, or of similar level in other departments and programs. The entire program for each minor is to form a unified and coherent intellectual whole. One or more faculty members will be designated as advisers for each minor.

A student enrolls in a minor by declaring the minor and submitting a plan, similar to declaring a major, indicating the courses constituting the minor program along with the terms in which the courses will be taken. See the Registrar's Office website for procedures on declaring a minor. In general, a minor may not be in the same department or program as the student’s major. There are some exceptions to this; examples include: French with Italian, Physics with Astronomy, and Computer Science with Digital Arts. For a complete list of invalid major/minor and modifier combinations see the Invalid Combinations page of the DartWorks Guide. Departments/Programs may petition the Committee on Instruction for any additional combinations. As with Dual Majors, no course may count toward both a major and a minor or toward both of two minors (although a course may be part of one of these and prerequisite to the other, or prerequisite to both, subject to the approval of both departments or programs). At most one course in the minor, including prerequisite courses, in which the standing of NR is received may be used toward satisfying the minor. Individual departments or programs may disallow courses with NR standing to count toward their minors; see the individual department or program information in this Catalog to determine whether courses with NR standing are allowed to count toward their minors.

No more than half of all courses required for the minor, including prerequisites, may be satisfied by transfer.

A student may develop a special interdisciplinary minor working directly with two or more faculty advisors. A proposal for a special minor, including a written rationale, must be approved by the Council for Interdisciplinary Programs. A special minor normally shall include no more than one course taken prior to petition and approval.

After consultation with appropriate faculty member(s), the student wishing to pursue a special minor should submit in writing the proposed individualized program of study to the Assistant Dean of the Faculty for Academic Advising Programs.

**Statement of Credits**

For a student who was registered fall 1985 or later all courses are in the form of course units. Each course count unit may be considered the equivalent of a semester course worth 3.5 semester hours (4.5 if a laboratory course) or 5 quarter hours (6.7 if a laboratory course.) This statement appears with undergraduate official transcripts issued as of academic year 2018-2019 and thereafter.

**Scholarship Ratings**

Regularly Graded Courses: Since the fall term of 1973-1974, the grade assigned at the completion of a course has been one of the following: A, A-, B+, B, B-, C+, C, C-, D, or E. The following guidelines offer general criteria for evaluation and grading, with ‘plus’ or ‘minus’ designations indicating that, in the opinion of the instructor, the student has performed at a level slightly higher or lower than the norm for that category.

**A**: 1. Excellent mastery of course material
   2. Student performance indicates a very high degree of originality, creativity, or both
   3. Excellent performance in analysis, synthesis, and critical expression, oral or written
   4. Student works independently with unusual effectiveness

**B**: 1. Good mastery of course material
   2. Student performance demonstrates a high degree of originality, creativity, or both
   3. Good performance in analysis, synthesis, and critical expression, oral or written
   4. Student works well independently

**C**: 1. Acceptable mastery of course material
   2. Student demonstrates some degree of originality, creativity, or both
   3. Acceptable performance in analysis, synthesis, and critical expression, oral or written
   4. Student works independently at an acceptable level

**D**: 1. Deficient in mastery of course material
   2. Originality, creativity, or both apparently absent from performance
   3. Deficient performance in analysis, synthesis, and critical expression, oral or written
   4. Ability to work independently deficient
E: 1. Serious deficiency in mastery of course material
   2. Originality, creativity, or both clearly lacking
   3. Seriously deficient performance in analysis, synthesis, and critical expression, oral or written
   4. Cannot work independently

The following grade point values are assigned: A, 4; A-, 3 2/3; B+, 3 1/3; B, 3; B-, 2 2/3; C+, 2 1/3; C, 2; C-, 1 2/3; D, 1; and E, 0.

In view of the many grades assignable and differences in faculty policies, every faculty member will explicitly declare criteria for grading to students in their courses and provide as much information as possible with respect to an individual student’s progress and the evaluation of the final grade assigned.

A course assigned a grade of E does not add to the student’s total (course count) counting toward the minimum of 35 for graduation, nor does it serve in satisfying any other graduation requirement. The E is, however, a permanent part of the student’s record, is included in all calculations of the student’s grade point average and is shown on transcripts.

On May 23, 1994 the Faculty voted that transcripts and student grade reports should indicate, along with the grade earned, the median grade given in the class as well as the class enrollment. Departments and Programs may recommend, with approval of the Committee on Instruction, that certain courses (e.g., honors classes, independent study) be exempted from this provision. Courses with enrollments of less than ten are also exempted. At the bottom of the transcript there is a summary statement of the following type: ‘Exceeded the median grade in 13 courses; equaled the median grade in 7 courses; below the median grade in 13 courses; 33 courses taken eligible for this comparison.’ This provision applies to members of the Class of 1998 and later classes.

A student who has failed a course may elect it again. In this situation both of the grades are recorded and included in the cumulative average; only one course credit is earned. The same general principle applies to Credit/No Credit courses.

At the end of each term every undergraduate may view a grade report listing the courses taken, the grade in each, the term and total overall course count, and the grade point average for the term and overall. This information is available on DartHub.

At the end of each term every student’s term and cumulative grade point average (GPA) are calculated. The GPA calculation includes solely courses taken at Dartmouth on a regular A through E grading scale (GPA courses). The calculation uses quality points which are three times the usual grade values to prevent the accumulation of errors: an A counts as 12 points, A- as 11, B+ as 10, B as 9, B- as 8, C+ as 7, C as 6, C- as 5, D as 3, and E as 0. The GPA is the sum of the quality points divided by three times the GPA courses. This quotient is rounded to two decimal places.

The grade reports show alongside a course entry, when appropriate, an asterisk to indicate the intention of the instructor to award a citation. Citations are designed to procure an official record of information about undergraduates who have made particularly favorable impressions on members of the faculty because of their unusual talents, dependability, initiative, resourcefulness, or other meritorious characteristics that are not indicated adequately by academic grades. The actual statement of citation is included with a student’s transcript whenever such is issued unless the instructor has failed to supply it at the time of issuance of the transcript or the student does not wish it to be included.

If a student has elected a course under the Non-Recording Option, the grade assigned by the instructor is shown on the grade report, then the limiting grade selected by the student, and finally the officially recorded standing. If the assigned grade has at least matched the grade limit, the assigned grade becomes the official grade; if not, the standing ‘NR’ (Non-Recorded) is posted unless the assigned grade is E. Please consult the section on the Non-Recording Option.

It should be noted that grades that are high enough to satisfy the various degree requirements may not be indicative of overall satisfactory progress and may lead to action by the Committee on Standards; consult the Student Handbook.

Final Grades:

Final grades are the responsibility of the instructor.

Student-Initiated Appeal:

• A student who questions the appropriateness of a grade confers with the instructor.
• If the instructor agrees, the instructor makes a written request to the Registrar, with the approval and co-signature of the department/program Chair.
• The instructor must indicate one or more specific ways in which the student was done an injustice. A simple change of mind will not suffice.
• It may not be made on the grounds of course work completed after the term in which the course was offered other than in the case of an official incomplete.
• If the instructor refuses to make a grade change:
• The student may appeal, in turn, to the Chair, the Associate Dean of the Faculty for the appropriate division, and the Dean of the Faculty; it is unusual for such appeal to go beyond the Chair.

• The student must initiate the appeal to the instructor, in writing, by the last day of the term following that in which the course was taken.

• The instructor must submit the final grade to the Registrar by the last day of the second term following the term in which the course was taken.

• If the student has been graduated, only the department/program Chair may initiate a grade change. It must be submitted within one year of the student’s graduation in the case of clerical, computational or other similar administrative error.

**Instructor-Initiated Grade Change:**

• The Instructor makes a written request to the Registrar, with the approval and co-signature of the department/program Chair.

• The Instructor must indicate one or more specific ways in which the student was done an injustice. A simple change of mind will not suffice.

• It may not be made on the grounds of course work completed after the term in which the course was offered other than in the case of an official incomplete.

• The Instructor must submit the final grade to the Registrar by the last day of the term following the term in which the course was taken.

• If the Registrar refuses to make the change, the instructor may appeal to the Dean of Faculty;

• If the student has been graduated, only the department/program Chair may only initiate a grade change. It must be within one year of the student’s graduation and only in the case of an official incomplete.

Note: These procedures also apply to undergraduate courses with the subject TUCK, however where required the Tuck School of Business Dean designates the appropriate Chair equivalent within the Tuck structure. If the appeal goes further, it proceeds to the Tuck Dean.

**Temporary Transcript Designations**

There are various circumstances in which the final grade in a course cannot be submitted by the instructor during the usual period immediately following the end of the final examination period. Three different designations, I (Incomplete), ON (On-Going), or AD (Administrative Delay), may appear temporarily on the end of term grade reports and on transcripts, depending on the circumstances, as described below.

There is no grade of Incomplete. Incomplete is a temporary notation placed on a student’s record to indicate that the work in a course has not yet been completed and therefore a grade has not yet been submitted by the instructor. The assignment of Incomplete in a course may be made only by the Dean of the College upon request of the student and the instructor. Failure to complete a course on time without prior approval by the Dean will result in the grade of E. Generally speaking, an Incomplete is approved when there are circumstances that are judged to be beyond reasonable control by the student.

Although the original vote of the Faculty was specific, all of the Deans in the Undergraduate Deans Office are qualified to act in the context of Incompletes.

If the request is based on such an academic reason as an unanticipated difficulty in obtaining sources or the failure of a critical experiment, the student should consult first with the instructor. Approval by the instructor of the student’s request should be in writing and should set forth the circumstances. This document should then be sent directly to the Dean of the College.

If the request for an Incomplete is based on non-academic reasons (illness, unavoidable absence, etc.), the student should make it directly to the Dean of the College who will grant or deny the request after consultation with the instructor in the course.

All Incompletes are granted for a specific period to be established jointly by the student and the instructor with the concurrence of the Dean of the College. If the student fails to complete the work of the course within the agreed period and no extension is granted, the instructor reports the appropriate grade for the student based on the student’s performance, no credit being allowed for the fraction of the work not turned in. If the instructor fails to report a grade, the Dean, after consultation with the instructor, the department or program chairman, or both, may ask the Registrar to record the grade of E (or in courses offered on the Credit/No Credit basis, the final standing of NC).

Extensions of time beyond the original deadline are granted only in exceptional cases. A request for an extension must be received by the Dean of the College before the established period has expired and are granted or denied after consultation with the instructor.

**NOTE: All requests for the temporary standing of Incomplete must be received by the Dean of the College on or before the last day of the corresponding examination period.**

The designation ON (On-Going) may be used on transcripts when the assignments of a single course necessarily extend beyond the limit of a single term. Examples of such circumstances are certain senior honors courses where the work in a preliminary course cannot be
evaluated until a second term of a thesis or other project is completed. It is also used for certain Music courses where three (3) terms are required to complete the course whereupon one credit is earned in the final term.

The ORC/Catalog course description indicates those courses in which a grade of "ON" may be assigned. Grades for any course not having such permission must be assigned at the end of the term in which the course is offered. For ongoing courses, except for Music courses described above, the first term of a two term ongoing grade is replaced with same final grade as the final term when no other grade has been assigned. Students may receive no more than 2 credits for a single on-going course. In the case where the "ON" is assigned for certain 3-term Music courses and a single credit is earned, the grade is earned, and the course load is applied in the final term only.

The designation AD (Administrative Delay) may be used on transcripts when the grades of one or more students in a course cannot be reported on time due to administrative or personal factors, but where the use of an Incomplete is not appropriate. Examples of such circumstances are a serious illness of the instructor at the time grades are due, or delays in receiving grades from Off-Campus programs. Requests for use of this designation, including an agreement on the date when the final grades will be submitted, will be made by the instructor or Chair to the Registrar.

Credit/No Credit Courses

Certain courses are offered on a Credit/No Credit basis. A student electing one of these courses receives a grade of CT (Credit) or NC (No Credit). A grade of NC is defined as failure to complete the course satisfactorily according to criteria to be announced by the instructor at the beginning of the term. Such a course will be counted, if the grade is CT, toward the minimum of thirty-five needed for graduation. A course with grade of CT or NC may not be used to satisfy a General Education requirement. If approved previously, a Credit/No Credit course may be counted toward the Major Requirement.

Courses under this system carry no grade units and are not used in establishing a cumulative average. If a student receives a grade of NC, the course is recorded as such, and no increase in course count is achieved. As in regularly graded courses, there can be a temporary standing of Incomplete.

Students should note that, although a grade of NC does not affect the Dartmouth grade point average, certain outside agencies may count such grades as E’s and will recalculate the student’s grade point average to reflect this. Check their website for waivers related to COVID-19.

While endorsing the system here indicated, the Faculty believes it necessary to ensure that students have on their records an adequate number of regular letter grades. A limit has been set for each student of overall eight final standings of CT, NC, NR, and E (the last standing only when assigned in an NRO course). Accordingly, the degree of use of “Credit/No Credit” courses affects the election of courses under NRO and vice-versa. (If a student never uses the Non-Recording Option or does so but always regains the eligibility temporarily invested, that student may accordingly elect as many as eight Credit/No Credit courses.)

The concept of essentially non-graded courses was developed mainly to offer an improved way of dealing with subject matter that is intrinsically ill-suited for grading. It may be applied, however, to any area when an instructor desires, provided in every case that the authorization of the Department or Program offering the course has been obtained sufficiently in advance. An individual course may accordingly be offered in different terms as a regularly graded course or in the fashion described here. The Registrar’s Office website, including a link on the Timetable of Class Meetings lists the Credit/No Credit courses for the given term. No change in either direction may be made after publication of the published list and no individual student may be graded in a fashion different from the announced pattern.

In a given term all sections of a course offered that term in two or more sections must be offered under the same pattern: all must be regularly graded, or all must be Credit/No Credit (with the pattern having been earlier announced, as indicated previously).

Students should be sure to recognize the differences between a Credit/No Credit course and a course taken under the Non-Recording Option, as described in the following section. A department or program sets the grading pattern for a Credit/No Credit course. A student may elect a CT/NC course but may not determine the grading mode. However, the student does have the option to choose the Non-Recording Option unless the course has been placed ‘out of bounds.’

Non-Recording Option

To support and encourage students who would like to elect courses that may pose greater than usual academic risk, the Faculty offers the Non-Recording Option to undergraduate students.

Eligibility - Students

Available to all students who are enrolled and taking courses except for students on Probation, Warning, or the first term following assignment of Risk.

Description

• Students may elect to receive an NR in one regularly graded course per term except for any courses departments or programs have indicated as “out-of-
The faculty member will submit a letter grade which will not be shown on transcripts or included in the calculation of students’ grade point averages.

- Students may either indicate that they wish to receive an NR, regardless of what grade the instructor assigns, or indicate the lowest grade they wish to display on their transcript.

**Grades and GPA**

- A regular letter grade is assigned by the instructor and recorded internally.
- If a student receives an NR:
  - The letter grade submitted by the instructor, while not used in computing any recorded grade average, is available for internal use (e.g., in connection with the limit on the number of D’s allowable).
- A ‘non-recorded’ D will be counted toward the maximum of eight D’s allowable in the minimum course count for the degree
  - It will make the student liable for academic action by the Committee on Standards.
- If an E grade is recorded it displays on the transcript and is averaged in the calculation of students’ GPA.

**Eligibility – Courses**

- Various departments and programs, or instructors, believe certain courses are unsuitable for use of the option. They are considered “out of bounds”.
  - A list of courses that are “out of bounds” is maintained and published by the Registrar on the Timetable of Class Meetings each term.
  - In addition to individual “out of bounds” courses, students may not use the NR option for any:
    - First-Year Seminars
    - Courses studied off-campus
    - Beginning language courses (taken in satisfaction of the Language Requirement or prior thereto)
    - Graduate courses

**Restrictions - Faculty**

- Departments and programs may not make any change to or from the out-of-bounds status for their course(s) following the publication of the Timetable of Class Meetings for a given term.
- Departments and Programs may not grant an exemption from the out-of-bounds status to an individual student.
- Instructors assign a regular letter grade.
- Instructors are not informed which members of their class have elected the option.
- Instructors may, however, know how many students elected the option.

**Restrictions – Students**

- Each undergraduate is allowed one NR in a term.
- Students may have up to a maximum of three total uses of the option that result in a standing of ‘Non-Recorded’ (NR) over their Dartmouth career; *For exceptions to the limit of three uses, see the section on Language Requirement Waivers.*
- A course that receives NR is included in the student’s sum of credits toward graduation.
- A standing of NR prevents the course from being used to satisfy:
  - Distributive requirements
  - The World Culture requirement
  - Major requirements
- An NR may, however, be used to satisfy:
  - Prerequisite courses to the major
  - At most one course in the minor, including prerequisite courses.
- Uses of the option resulting in the standing of NR or the grade of E (up to the maximum of three) are included in the total of eight courses that may be taken Credit/No Credit or under the Non-Recording Option.
- Students should note the crucial NRO dates published on the term calendar for selecting the option, changing the course chosen, withdrawing from the election of the option, and for altering the choice of grade.
  - The Registrar does not grant extensions of NRO deadlines for any but the most extenuating and compelling circumstances.
  - Should a student withdraw from the course selected for NRO after the end of the initial fifteen days, they do not use the eligibility associated with the designated course but are not able to make use of NRO in that term.
- Students sometimes desire the release of the concealed letter grade, for example for use in a major, for general education credit, or for admission to a graduate school. Such requests are not considered.

**Procedure**
• Within the first fifteen days (usually eleven class days) of a term a student may indicate use of the Non-Recording Option for one course each term.

• The student indicates the lowest letter grade they are willing to have recorded and used in averaging for each course.

• The student may also, instead of a letter grade, indicate the intention to have a final standing in the course of NR (Non-Recorded).

• At any time after this initial period, but not later than five class days before the last day of classes for the term, a student may revise the choice of lowest acceptable grade or of NR.

Outcomes
• There are three possible outcomes for a course under the option:
  • If the grade assigned by the instructor matches or surpasses the student’s final choice, it is entered and serves in all respects as a regular letter grade.
  • If the grade is not an “E” but otherwise lower than the student’s final selection, or the student chose to receive an NR, the entry on the student’s permanent record and on transcripts is NR.
    • The standing of NR is permanent: requests to revoke it and reveal the letter grade originally assigned by the instructor must be refused.
  • Should the assigned letter grade be E, this grade is recorded and averaged in the normal fashion no matter whether the student chose a grade or NR. The student receives no course credit.

Special Students
Special Students are non-degree candidates who are admitted on a temporary basis. They include academically prepared area high school students who participate in Dartmouth’s Special Community High School program administered by the Dean of the College, and qualified College students admitted through the Admissions Office for the summer term only. In addition, the Dean of the Faculty may, in extraordinary, rare circumstances admit a special student temporarily for one or more terms other than summer term.

While the degree regulations do not apply to Special Students, most of those applying to specific courses and College Regulations do; Special Students should note particularly the following section on ‘Working Rules and Procedures.’ Special Students should refer to the Special Community Student website.

Enrollment Patterns (D-Plans)
The following policies apply to the class of 2024 and later. Earlier class years should refer to the ORC/Catalog from their matriculation year.

First-Year Residence
All students must be on-campus in residence (R) during fall, winter, and spring of their first year. Shortly after the start of the spring term every first-year student must submit their enrollment pattern (D-Plan) for the remaining nine terms. The pattern must be within a period of four academic years (within fifteen terms after matriculation) and designed to meet degree requirements. After the first year, students may substitute an Off-Campus Program term (O) for one or more of the remaining nine terms.

Transfer students will have fewer terms to complete their requirements. They are subject to the number of terms to complete their degree as confirmed by the Registrar at the end of their first term. The number of terms in residence depends on the initial number of credits which transferred to Dartmouth.

After this initial enrollment, students may make subsequent routine changes in their enrollment pattern (D-Plan) online using DartHub. More complex changes are not supported online. Students may make them by contacting the Office of the Registrar.

Sophomore Summer Residence Requirement
All students are expected to be in residence during the summer term that immediately follows the sophomore year to take advantage of the presence of an entire class during that time. Dartmouth-sponsored off-campus summer programs or substitution of another summer residence term may be used in satisfaction of the sophomore summer residence requirement.

The Registrar may waive the requirement of a summer residence term with support from the appropriate Dartmouth official. It will be granted only in truly exceptional circumstances when demonstrated that it will significantly enrich that student’s Dartmouth academic program. Other circumstances that may merit a waiver include cases of demonstrable serious financial hardship, a serious personal or health problem, or participation in varsity athletics in the fall, winter, and spring terms of every year. However, no more than eight percent of the class (including exemptions for three-term athletes) will be allowed for any college class. Students who receive a delay for sophomore summer are expected to be in residence the following summer.

Senior Residence Requirement
Seniors are expected to be in residence at least two terms their senior year. The senior year is normally considered the fourth year after matriculation. It is the last year for students who are earlier or later graduates. Students should
plan carefully prior to senior year to ensure they meet this requirement. At most students may have seven fall or spring residence (R) terms in total unless one or more of those terms is participation in an Off-Campus Program (O).

Students who had expected to graduate spring term of the fourth year after matriculation but are unable to do so for whatever reason may enroll an additional term to complete their degree. The additional term may be during the subsequent summer or winter term (only).

Petitions to the Registrar for exceptions

Students may submit an enrollment pattern (D-Plan) petition to the Registrar for requests that do not meet the requirements above. Petitions must be accompanied by a copy of the student's approved major plan and in many cases require support for the exception by the appropriate Dartmouth official. Students submit all enrollment pattern (D-Plan) petitions to the Registrar each term no later than one week prior to the last day of the term.

Students who desire to file an enrollment pattern (D-Plan) distributing the thirty-five courses over a period of five academic years (sixteen to nineteen elapsed terms) or to change a previously approved pattern to a new one of this type, must petition the Registrar. Five-year patterns will not be reviewed until a student has progressed well into the sophomore year and has an approved major on their academic record.

In planning and modifying their enrollment pattern (D-Plan), students should be careful to accrue enough leave terms in the sophomore and junior years to avoid having a thirteen-term pattern when only twelve terms were required. Students who have or will have met all graduation requirements after twelve terms are not approved for additional terms. (The desire to add or complete a minor, additional major, or participate in an off-campus program does not qualify a student to enroll additional terms.)

Students may appeal the Registrar's decision to a subcommittee of the Committee on Standards, as described in the Organization of the Faculty of Dartmouth College.

Additional notes

Students who wish to take more than four consecutive terms with an enrollment pattern (D-Plan) of only leave (L) or administrative withdrawal (A) terms must withdraw from the College after the fourth such term by contacting the Undergraduate Deans Office.

International students should consult with the Office of Visa and Immigration Services about implications for their visa status in SEVIS before initiating more than one leave (L) term within the United States or before initiating a withdrawal.

Students with a documented disability supported by Student Accessibility Services and those who have Veteran status (only) may petition for a two-course load beyond the three-term maximum allowed.

Off-Campus Activities

Students have a variety of opportunities for studying off-campus. Dartmouth strongly encourages students to study through Dartmouth-sponsored programs and exchange programs. In addition, students may independently seek out programs offered by other institutions which Dartmouth refers to as transfer terms. The Frank J. Guarini Institute for International Education administers Dartmouth-sponsored credit-bearing programs and applications to participate in exchange programs. The Office of the Registrar administers transfer term applications as well as exchange and transfer course approvals.

To be eligible for a Dartmouth-sponsored off-campus program or exchange program, accepted students must be in good standing, must not have the temporary standing of Incomplete in any course, and must have completed the First-Year Seminar requirement. The rules for approval of transfer courses taken while on an exchange program are the same as for all transfer courses. (See 3 below, Transfer Credit from other Institution.) Students who wish to participate in a transfer term must petition the Committee on Instruction outlining how the transfer term meets their academic goals.

Only programs taught by Dartmouth faculty, i.e. Dartmouth L.S.A. (L.S.A.+), Dartmouth F.S.P. carry Dartmouth course credit. The Committee on Off-Campus Activities (COCA) is charged to review and supervise all Dartmouth-sponsored off-campus academic programs and activities. Other off-campus coursework activity, exchange programs or non-Dartmouth programs may be eligible for transfer credit.

A student enrolled in a Dartmouth off-campus program pays full Dartmouth tuition and program costs are eligible for financial aid. The Guarini Institute determines the cost of each of the programs. (The cost of most programs exceeds the cost of a term spent on campus.) For financial aid students, assistance is available to meet the extra costs, including airfare. For Dartmouth scholarship recipients, half of the extra cost is met with additional Dartmouth scholarship; loan assistance is offered for the other half. Loan assistance is also offered to replace the employment that would normally be included in an on-campus term.

The Committee on Instruction (COI) is charged with the oversight of transfer terms. Students may transfer no more than four Dartmouth-equivalent course credits from other institutions toward the degree at Dartmouth and transfer credits received for courses taken at other institutions prior to matriculation count toward the maximum permissible total of four. A student participating in a transfer term pays
an application fee to Dartmouth for each term of participation. No Dartmouth scholarship aid is available to students enrolled in an academic institution with which Dartmouth has no formal exchange agreement.

Dartmouth College does not investigate the issues of safety and security in the various transfer programs students may consider when taking a transfer term; it is the students’ responsibility to investigate these issues. Dartmouth urges students to explore with their parents all issues of safety and security.

1. Guarini Institute Off-Campus Programs: Officially recognized programs that are administered and led by Dartmouth Faculty. Students receive specific course credits and grades. A list of programs is published on the Guarini Institute website.

The Guarini Institute website describes all programs in detail. Note: The Arabic, Chinese, Film Studies, German, Japanese, Portuguese, Russian, Spanish, and Theater summer programs serve in satisfaction of the summer residence requirement.

Candidates for Foreign Study (FSP) and Language Study Abroad (LSA) Programs apply online via the Guarini Institute website by the appropriate deadlines; selection is made by the sponsoring department or program. It is the student’s responsibility to review information on the Guarini Institute website or contact the Guarini Institute staff for application deadline information. Although the Language Requirement is, by regulation, to be completed by the end of the seventh term, the Registrar can grant an extension to permit L.S.A. study at a later time if a student’s program of study prevents earlier enrollment.

Specific Dartmouth course credit and grade can be given only for a course taught or directly supervised by a Dartmouth faculty member. Students must elect a three-course load; two-and four-course loads are not allowed on Dartmouth off-campus academic programs. Courses taken on such programs are out of bounds for the use of the Non-Recording Option. Students are expected to be at their program for its full duration.

For academic off-campus program courses delivered in the English language, elective courses must be closely related to the subject of the program and an integral part of an officially defined undergraduate Arts and Sciences curriculum. Thus, pre-professional, technical, business or graduate courses are not acceptable. The elective course does not satisfy distributive or world-culture requirements unless such requirements have been assigned by the Committee on Instruction at the time the off-campus program is authorized.

A senior who participates in an off-campus program must obtain special permission from his or her major department or program; such approval is strongly advised for juniors as well. A senior may, with the permission of the chair of the major department/program and the Registrar, replace one of the required residence terms by a term of off-campus study in the principal field of the major, provided such will be of great benefit to the student’s program and will in no way interfere with proper completion of the major or other requirements.

No Dartmouth student may participate in more than three terms of Dartmouth-sponsored off-campus programs (i.e., L.S.A. and/or F.S.P., etc.) for academic credit, except by special permission by the COCA based on a written petition presenting valid academic reasons and strongly supported by the student’s major department or program.

2. Transfer Credit from Dartmouth Exchange Programs: A student may participate in one of Dartmouth’s established Exchange Programs by applying online via the Guarini Institute website by the appropriate deadline. Grades received in courses transferred from other institutions are not recorded on the Dartmouth transcript or included in the Dartmouth cumulative average. Credits earned on Exchange Programs are included in the maximum of four transfer credits allowed toward the degree. Information regarding procedures for pre-approval of transfer credit from exchange programs is available from the Guarini Institute and the Registrar’s Office.

It is the student’s responsibility to seek and obtain department or program pre-approval for the transferability of each course, for distributive and world culture attributes, and for possible major and/or minor credit, if appropriate.

3. Transfer Credit from other Institutions: Students desiring transfer of course credit from any other institution not part of a formal exchange program with Dartmouth submit a Transfer Credit Application and Transfer Credit Approval Form to the Office of the Registrar by the appropriate deadline date listed on the Registrar’s website. A non-refundable, non-petitionable application fee of $2,200 is assessed for the winter, spring, and summer terms. No fee is assessed for fall term. To initiate the process, students should review the policies and procedures on the Registrar’s web site regarding transfer credit, research transfer term possibilities by talking with professors and reviewing online resources, and prepare a statement describing how they plan to incorporate the transfer term into their Dartmouth academic program. Students obtain the required transfer credit application forms on the Registrar website. Following are the policies surrounding transfer credit:

a. Prior Dartmouth approval is required for the specific program as well as individual courses. It requires review and approval by a sub-committee of the Committee on Instruction, the Registrar, and the Departments/Programs accepting transfer of the courses. It is the student’s responsibility to initiate the process and to seek and obtain department or program approval for the transferability of each course. This would include distributive and world
culture attributes, as well as possible major and/or minor credit, if appropriate.

b. Potentially acceptable programs and undergraduate courses. Courses offered by accredited degree-granting institutions are potentially acceptable for transfer credit provided the courses are an integral part of an officially defined undergraduate Arts and Sciences curriculum; online courses, those given by extension programs, or internship programs are not transferable. Students should be aware that some departments and programs have restrictive policies toward transfer credit.

c. Length of term. For each potential transfer course, students must be enrolled for a minimum of three weeks and thirty contact hours per Dartmouth course credit.

d. Credits, grading, and general education attributes. A minimum of three semester hours or four quarter hours are required to earn one Dartmouth course credit. A minimum grade of C quality or better must be earned. Grades received in courses transferred from other institutions are not recorded on the Dartmouth transcript or included in the Dartmouth cumulative grade point average. A pass/fail course is not accepted in the absence of proof that the grade is a minimum C quality. Courses elected under such a grading option do not carry distributive or world culture attributes.

e. Deadlines. Deadlines for each term and the Transfer Term Application and Transfer Credit Approval forms are available on the Registrar’s website and from the Office of the Registrar.

f. Approvals. A sub-committee of the Committee on Instruction (COI) reviews each Transfer Term Application and will inform the student whether or not his or her transfer term has been approved. Approval of a course(s) by department/programs is required but not sufficient for transferability. Normally no more than 5 students may participate in the same program in the same term.

g. Course changes. A student with approved plans for an exchange or transfer term at another institution, who finds after enrollment that an approved course is not available, may apply for approval of a substitute course. After the transfer term starts, it may be possible to substitute a course for one that was approved previously, but such approval is not guaranteed. Additional non-related courses are not approved. Students must contact the Registrar’s Office to initiate such changes.

h. Transcripts. Upon completion of the transfer term the student must personally request that an official transcript from the host institution be sent directly to the Dartmouth College Registrar’s Office. All transcripts must be on file in the Registrar’s Office by the end of the term immediately following the transfer term. No credit is entered on the Dartmouth record until an official transcript has been received from the transfer institution.

i. Limits of transfer credit. Students admitted as first-year students may transfer a maximum of four course credits toward the thirty-five required for the Dartmouth degree, whether such credits have been earned prior to matriculation or subsequently. Students with special academic plans may petition the Registrar for transfer study up to a total of one academic year (i.e., nine credits). Normally one additional credit may be approved, and the Committee on Instruction may review petitions for further credits when unusual circumstances arise.

**Academic Standing Limits on Transfer Courses**

Normally, because of residence requirements, the option of studying during the fall, winter, and spring terms at another institution for transfer credit is not open to first-year students or to seniors. Students on probation or withdrawn on probation, or those suspended or withdrawn with prejudice, are also ineligible except in the following instances:

1. **Probation.** Students on probation (or withdrawn on probation) may, with the strong support of a dean, and prior to enrolling at another institution, petition the Committee on Instruction (COI) in advance for permission to take courses at that institution for credit toward the Dartmouth degree; the resulting credits are included in the maximum of four allowed toward the degree. Students whose academic standing changes to probation after approval of the transfer term are then on probation, and permission for the transfer term is automatically revoked. Such students who enroll in another institution will not be awarded transfer credit without further petition to the COI as indicated above.

2. **Suspension.** Students who have been suspended for a definite period and who take courses after the period of suspension ends but before they have been officially readmitted to Dartmouth may, with the strong support of the Dean of the College, petition the COI to be allowed to apply for transfer credit. Students submitting such petitions should present convincing reasons for transferring the desired courses and be aware that (a) only courses taken after the period of suspension has ended may be considered for transfer credit (for students withdrawn with prejudice, no courses taken during the first three terms after leaving Dartmouth will be considered for transfer credit), (b) in no case will COI grant permission to transfer more than four courses taken prior to readmission, and (c) those transferring courses under such circumstances ordinarily must return to Dartmouth for at least one term in residence before graduating. Students whose
academic standing changes to suspension after approval of the transfer term are then on suspension, and permission for the transfer term is automatically revoked. Such students may not apply for transfer credit from another institution without further petitioning the COI after the period of suspension ends but before they have been officially readmitted to Dartmouth, as indicated above.

3. Suspension or withdrawal with prejudice. Students who have been suspended or withdrawn with prejudice and subsequently readmitted may apply for transfer credit for courses that they take after readmission but before they actually return to Dartmouth. The regular rules and deadlines for receiving transfer credit will normally apply in such cases.

Transfer Credits For Matriculating Transfer Students

Only students admitted by Dartmouth Admissions Office to Dartmouth College as transfer students qualify for the special regulations that follow. Transfer students may not transfer further credits after matriculation. This prohibition includes exchange terms and other transfer work.

Students who have spent one or more years at another institution before matriculation at Dartmouth are subject to various special academic regulations. The eighth of these relates to the transfer of credit: ‘Course equivalencies are determined by the Registrar or his/her designate. In the event of a question regarding the equivalency or appropriateness of a course, the department or program involved will be consulted. Courses applied for major credit must be approved by the major department or program.’

The basic principle guiding this regulation is that credit for matriculating transfer students is granted based on the same criteria that it is based for students who matriculate as first year students. Pre-matriculation credits on entrance (such as Advanced Placement) given by the original institution are evaluated according to Dartmouth standards. There are exceptions to this general principle, for example departments or programs which restrict transfer credit (for instance, only to majors) or which place certain courses out of bounds for transfer credit (for instance, elementary language courses) may approve such credits for matriculating transfer students, assuming the courses qualify otherwise. Also, matriculating transfer students may transfer credit from Community Colleges if the department or program approves the credit.

Transfer students are notified upon admission that they must submit syllabi for all work requested for transfer credit, official transcripts, SAT, ACT, AP, and other scores unless they are available from the Admissions Office. These transfer credits are evaluated by the same criteria and procedures used for currently enrolled students going away on transfer terms. This includes methods of conversion of quarter or semester hour courses into the Dartmouth course credit system, determination of distributive credit, language requirement completion, etc.

Credits and Proficiencies on Entrance

Prematriculation credit is any credit such as credit on entrance or transfer credit earned prior to matriculation (before starting at Dartmouth). Credit on entrance is recognized for achievement on a test that may be equivalent to a course, however it does not reduce the number of credits (35) required for graduation. Examples of tests include Advanced Placement (AP), International Baccalaureate (IB), A-Level, SATs and local placement tests.

The evidence that may be used to demonstrate mastery of college-level work is limited to: (1) standardized tests scores (Scholastic Assessment and Subject Tests, AP exams, British A-Level, International Baccalaureate), (2) official transcripts from four-year colleges, and (3) Dartmouth placement exams. The awarding of prematriculation credit based on French, Swiss, Italian and German Baccalaureate results is evaluated on a case-by-case basis and is limited to two credits on entrance granted in any one discipline.

See the Registrar's Office website for more information on credit on entrance.

Working Rules and Regulations

Course Loads

The normal course load in each of the four terms of the academic year is three courses. While two- or four-course loads are allowed within specified limits, no matriculated undergraduate may have in any term a load of fewer than
two courses or may in any term take, or receive credit for, five or more courses. Any registered student not officially enrolled in at least two courses by the end of the tenth day of classes in a term is liable for administrative withdrawal.

Should a student have what they believe is a compelling reason for adding a course after the tenth day, a petition may be addressed to the Registrar. The petition must explain fully the circumstances that have arisen since the start of the term to cause the request, and must be accompanied by written permission from the intended instructor. Regulations regarding withdrawal from courses after the tenth day of classes are enumerated elsewhere in the Catalog.

Two-Course Loads

A student may have a two-course load in any three terms, as a maximum, during his or her college career. There is no reduction in tuition associated with the taking of a two-course load. (See the section on tuition reduction for possible exceptions involving disabilities.) The end of the tenth day of classes of any term is the deadline for a student to reduce a course load from three to two or increase it from two to three. No change in either direction may be made after that date. See the first paragraph of this section for the possibility of filing a petition to add a course. There are no special restrictions as to the taking of Credit/No Credit courses or courses under the Non-Recording Option that apply to the course load chosen.

Election of Courses

After approximately seven weeks of each term every student scheduled to be enrolled as ‘R’ or ‘O’ elects courses for the following term. All students make use of the newly published Timetable of Class Meetings each term which updates this Catalog.

On occasion a student who has already taken and passed a course will wish to elect it again, sometimes with the intention of improving upon the earlier performance. Such is not allowable unless a student gains permission from the Registrar to elect such a course as a no-credit, grade-only, non-averaged third or fourth course. Such a course does not count in that term’s course load. Students may not elect a course that has been renumbered but is wholly or effectively identical to one already passed; they should also make sure that a repetition in course number is not also a repetition in content that will lead to loss of credit.

A student who has failed a course may elect it again. In this situation both of the grades are recorded and hence both are included in the cumulative average; only one course credit is earned. The same general principle applies to Credit/No Credit courses.

Full directions for electing courses are outlined on the Registrar’s Office website. Numerous courses have enrollment limits set prior to release of the Timetable; others are limited as enrollments grow. If the demand exceeds the limit, students are enrolled according to priorities established by the offering departments and programs. Dartmouth College reserves the right to make changes in the offering of any listed course and to cancel it when the enrollment is fewer than five students.

Students registering for courses that require instructor permission, a prerequisite override, or any other special permission/override must first consult with the instructor and/or the instructor’s proxy, if appropriate, and provide the instructor with his or her ID number so the instructor may apply the appropriate permission/override to his or her record. After the permission/override has been applied, the student receives a confirmation email that the
permission/override was applied. The student then registers for the course. Students who have not obtained a permission/override are not permitted to register for the course. After submitting their courses, students review their class schedule to ensure they have entered it correctly. Students are responsible for ensuring that their schedule is accurate. Students should note that addition of their name to Dartmouth’s learning management system, Canvas, without registration in DartHub does not constitute official registration for the course and may result in a loss of expected credit.

Many courses at the College have prerequisites, either in the form of prior course work, permission of the instructor, or both. It is the responsibility of each individual student to see that he or she has met the requirements for each course elected. Failure to heed published prerequisites may place the student in an untenable position in the course. Effective in the 2003 summer term, an instructor may require a student to drop a course during the first eight class days of the term if the student lacks the published prerequisite courses. Some departments/programs use prerequisite checking and do not allow a student to gain entry without a prerequisite override, while some departments/programs simply list prerequisite requirements in this Catalog. In either case, the student is required to meet the prerequisites listed.

Each term, students who have filed proper course elections for the following term may make changes in them through the last day of classes in the current term.

Undergraduate students may enroll for graduate courses taught by faculty members in Dartmouth departments and programs within the Arts and Sciences with permission of the instructor of the course, and may receive credit towards their Bachelor of Arts degree. Undergraduate students may only receive credit towards their Bachelor of Arts degree for graduate courses offered by other Dartmouth graduate programs if the course is cross-listed as an undergraduate Arts and Sciences course. *Students must enroll in the undergraduate section of the cross-list and receive a final letter grade.

*(Arts and Sciences courses are those with undergraduate departments and programs overseen by the Dean of Faculty of Arts and Sciences. See "Divisions of the Faculty" for a list of those departments and programs.)

With the permission of the instructor, a student may choose to audit a course instead of electing it for credit. The student should not expect to participate in class discussion or laboratory work, or expect the instructor to read or grade any work the student undertakes. No formal record is kept concerning courses audited; the student may not call on the instructor to write letters concerning his or her accomplishment or suggesting the quality of performance.

Registration and Course Changes

At the beginning of each term students must check-in online using DartHub. Students may begin check-in the day before classes begin and have until the end of the third day of class to complete check-in. This process requires the on-line verification/update of the student’s local address, emergency information, confirmation of missing student information, an enrollment commitment for the term, and other important information. The check-in process indicates any holds that may have been placed due to failure to settle the tuition bill or Dartmouth Card account or meet certain other College requirements. If holds exist, information is provided to indicate where and how to remove the holds. (Note: In-person processes to remove holds must be recorded during regular office hours, M-F, 8am-4pm, and may require completion earlier than the published deadline date. All online transactions must be completed before midnight of the published deadline date.)

A fifty-dollar charge will be made for check-in after the deadline. Students may submit a petition to Campus Billing and DartCard Services for a fee waiver only if supporting documentation from the office who initiated the hold is provided. (Petitions without supporting documentation will not be considered.) Any student scheduled to be in residence who has not completed the check-in procedure ten calendar days after the term begins is subject to administrative withdrawal from college immediately thereafter. Any student whose enrollment pattern calls for a residence term (R), but whose plans change, should be sure to change the pattern by the end of the ten days; otherwise they will be charged two hundred dollars instead of the previously indicated one hundred dollars (see the first Note in section 2 above).

Beginning with the first day of classes, students are eligible to change courses online using DartHub. Each term a five-day period is available for the adding, dropping, or exchanging of courses or sections. Information about adding, dropping and exchanging courses using DartHub are on the Registrar’s website. During the second five class days of a term students may add or exchange courses only by securing the approval of the instructor of the intended new course(s). Students should note that the last day of this period is the tenth class day of the term, i.e., the final day to settle on a load of three or, if desired and allowable, two or four courses. Be
sure to study carefully Section 1. Any student not officially enrolled at the end of the tenth day of classes in any term in at least two courses becomes liable for administrative withdrawal by the Dean of the College.

After this second five-day period a student may exchange courses only under certain conditions. They must obtain the written approval of the instructor of the intended new course, the written certification of the instructor of the course the student wishes to drop that he or she is not failing the course, and the written agreement of the Registrar to the overall change. Courses that are normally approved for exchange, per the Committee on Instruction, include section changes, those where the subject matter is essentially the same, where there was inappropriate placement within the same department/program (for example language courses), thesis and independent study courses, or courses that may be offered with or without laboratories. Completely unrelated courses and those exchanged late in the term are not normally approved.

On May 29, 1995, the Faculty approved changes in procedures for dropping or withdrawing from courses. These procedures took effect with the 1995 Summer term.

Each term is divided into three parts with regard to the rules and procedures governing course drops and withdrawals. The specific dates involved appear in the Academic Calendar. As the various deadlines are regulated by faculty policy and are consistently administered, students should be careful to be aware of them each term.

During the first ten class days of a term, as indicated above, students may drop courses as they please. Courses dropped in this period will not appear on the transcript. For students taking four courses, this period extends to the end of the sixth week.

After this period, and until ten class days before the last class day of the term, students may withdraw from a course at their own discretion. They must, as a courtesy, notify their instructor of their intention, submit the withdrawal to the Office of the Registrar on or before the withdrawal deadline. The course remains on the student’s transcript with the notation W for Withdraw. First-year students must also obtain the signature of one of the Deans of Undergraduate Students. Neither the instructor nor dean has the authority to forbid the withdrawal (excepting the case of first-year Writing and first-year seminar courses).

Note: Requests to remove a W from the transcript will not be considered.

During the last ten days of classes in the term until the final examination begins, students must petition to withdraw from a course. Such petitions must be accompanied by a written response from the instructor in the course, and confirmation that the student has discussed the matter with one of the Deans of Undergraduate Students. It will be expected that almost none of these petitions will be approved except in the most extreme medical or other circumstances, arising after the deadline. Petitions are reviewed and approved or denied by a committee that meets weekly during this period. Students whose petitions are denied may appeal to the COS Subcommittee. Once the final examination period has begun, it will be assumed that students intend to complete their courses, and no course withdrawal requests will be accepted.

It is important to note that no student may have more than three terms in which he or she is enrolled in only two courses (courses from which the student has withdrawn do not count toward the course load). A student may never be enrolled in just one course.

At any time during a term, students may view their course schedule on DartHub to confirm the courses in which they are officially enrolled, as well as classrooms and instructors. Checking this source in the first two weeks of the term is strongly advised to ensure that course elections officially on file match the student’s intentions.

Administration of Courses; Scheduling of Final Examinations; Pre-Examination Break

Not later than two weeks after the start of each academic term, every course instructor should provide students with a list of the papers, reports, examinations, and other requirements that are the components for a grade in the course, and the approximate dates on which the work is due.

By vote of the Faculty, effective the spring term of 1981-1982, during the last five days of classes of each term, no major tests or examinations may be given. Routine quizzes and drills may, however, be administered. Also, by vote of the Faculty, in every term there shall be a mandatory two-day break (Pre-Examination Break) between the last day of classes and the first final examination, during which no classes or tests may be scheduled. The academic calendar lists the various dates term by term. Because of the adoption of Memorial Day as a College holiday in 1998, the two days of the Pre-Examination Break in spring term will normally fall on Monday (Memorial Day) and the following Thursday, with final class days on Tuesday and Wednesday and examinations beginning on Friday.

Since problems sometimes arise in the reconciling of classroom and extracurricular schedules, the Executive Committee of the Faculty has established the regulations of the following three paragraphs:

*"Regular class attendance is expected of all students. Though academic schedules may sometimes conflict with College-sponsored or College-recognized extracurricular events, there are no excused absences for participants in such activities. Students who participate in athletics, debates, concerts, or other activities should check their calendars to see that these events do not conflict with their academic schedules. Should such conflicts occur or be
anticipated, each student is responsible for discussing the matter with his or her instructor at the beginning of the appropriate term. Instructors may be accommodating if approached well in advance of the critical date.

Such accommodations can be made only when the conflict occurs because of a scheduled College-sponsored or College-recognized event. No participant should expect to be excused in order to attend a team meeting or orientation session, practice session, meal, or other such activity.

No College-sponsored or College-recognized regular-season event may be scheduled during a Pre-examination break or a Final examination period except with the permission of the Provost, Dean of Faculty, and Dean of the College. One such exception is the regularly scheduled Saturday football game that is scheduled during the fall final examination period; during this time normally final examinations are suspended.

The Registrar announces the annual schedule of final examinations at the beginning of the academic year, effective fall term 2002. The schedule is arranged so that any instructor can allow up to three hours for the final exam. If a student is scheduled to have two examinations in actual conflict or three examinations on a single calendar day, the student may seek relief from one of the instructors to take that examination at another mutually convenient time during the final examination period. Therefore, students should be prepared to be available for examinations through the last day of the examination period. It is not uncommon for a student to have two examinations on a single calendar day or three examinations in two days. In these circumstances, no adjustment should be expected.

All regularly scheduled final examinations occur during the announced examination period; no undergraduate may be either allowed or required to take any final examination prior to the start of the examination period. Take home examinations, papers, or assignments due after the last day of class cannot be due earlier than the end of the second day of the examination period or the time of the regularly scheduled exam, whichever comes later. (By vote of the faculty on May 23, 2005.) A student who is not able to take a final examination or otherwise complete a course on time due to illness or other compelling cause must work with the instructor and the Dean of the College Office to make arrangements for an Incomplete well in advance of the examination or other deadline. Be sure to consult the section on standings of ‘Incomplete.’

Final Grades

Whether or not there is a final examination, the instructor submits grades no later than four days after the end of the final examination period, subject to the following stipulations:

- In those courses in which there is the requirement of a term paper or overall project, but no final examination, instructors may defer the required date for students to submit this work as late into the examination period as they may find convenient, provided that the final grades are nonetheless reported to the Registrar no later than four days after the close of the examination period.
- If, however, the paper or project is to be submitted prior to the beginning of the examination period, the final grades are to be reported no later than five days after the start of the examination period.
- For all final examinations scheduled after the Sunday prior to Thanksgiving Day in the fall term, the instructor reports final grades to the Registrar no later than the Wednesday after Thanksgiving Day.
- For spring term final grades for seniors are to be reported no later than 10:00 a.m. the Thursday prior to Commencement.

Several days thereafter, the Office of the Registrar posts final grades. At that time, students may access their grades on DartHub. Should you wish to learn a grade prior to this you must obtain it from your instructor. By vote of the Faculty every instructor has the obligation to make grades available to the students; the instructor may leave grades with an administrator, ask you to supply a self-addressed postcard, or use any other convenient method that does not violate confidentiality. The Office of the Registrar will not supply these grades; such is done only in the case of standings of Incomplete for which grades have since been assigned.

Final grades are the responsibility of the instructor.

Student-Initiated Appeal:

- A student who questions the appropriateness of a grade confers with the instructor;
- If the instructor agrees, the instructor makes a written request to the Registrar of the College, with the approval and co-signature of the department/program Chair;
  - The instructor must indicate one or more specific ways in which the student was done an injustice. A simple change of mind will not suffice.
  - It may not be made on the grounds of course work completed after the term in which the course was offered other than in the case of an official incomplete.
- If the instructor refuses to make a grade change:
  - The student may appeal, in turn, to the Chair, the Associate Dean of the Faculty for the appropriate
division, and the Dean of the Faculty; it is unusual for such appeal to go beyond the Chair.

- The student must initiate the appeal to the instructor, in writing, by the last day of the term following that in which the course was taken.
- The instructor must submit the final grade to the Registrar by the last day of the second term following the term in which the course was taken.
- If the student has been graduated, only the department/program Chair may initiate a grade change. It must be submitted within one year of the student’s graduation and only in the case of clerical, computational or other similar administrative error.

**Instructor-Initiated Grade Change:**

- The Instructor makes a written request to the Registrar of the College, with the approval and co-signature of the department/program Chair;
  - The Instructor must indicate one or more specific ways in which the student was done an injustice. A simple change of mind will not suffice.
  - The Instructor must submit the final grade to the Registrar by the last day of the term following the term in which the course was taken.
  - It may not be made on the grounds of course work completed after the term in which the course was offered other than in the case of an official incomplete.
  - If the Registrar refuses to make the change, the instructor may appeal to the Dean of Faculty.
  - If, however, the student has been graduated, the department/program Chair may initiate a grade change. It must be submitted within one year of the student’s graduation and only in the case of clerical, computational or other similar administrative error.

Note: These procedures also apply to undergraduate courses with the subject TUCK, however where required the Tuck School of Business Dean designates the appropriate Chair equivalent within the Tuck structure. If the appeal goes further, it proceeds to the Tuck Dean.

**Election of a Major**

As indicated under the Requirements for the Degree, students declare a choice of major after the beginning, and must do so by the end of his or her fifth term of residence or, in some cases, immediately thereafter.

Students in residence (R) during the winter term of their second year may start the major declaration process at the start of winter term and must declare it by the second Thursday of spring term, whether or not they will be in residence that term. As a practical matter, most students who will not be enrolled in the spring term must declare their major before leaving at the end of the winter.

Students not in residence in their second winter will be required to declare their major by the last day of class in their next term of residence. Since no student is required to declare a major before the end of the fifth term of enrollment (R, O, and X all being included) in a few cases the deadline for declaring is delayed from that indicated above until the end of the fifth term of enrollment is reached.

Early in the appropriate term, every student required to declare a major submits a major plan using DartWorks which requires the approval of the chair of the appropriate department or program (or other authorized faculty member designated by the chair). The student also lists the courses that are prerequisite to the major and the culminating experience. Detailed instructions for major declaration and the use of DartWorks are available on the Registrar's website.

**Important Note:** In working out your major with the department or program adviser you may find it necessary to modify your enrollment pattern (D-plan). If you do modify your D-plan, be sure to alter your official D-plan accessed from DartHub or by contacting the Office of the Registrar. It is the official enrollment pattern as filed with the Registrar and as displayed in DartHub, not what is listed in DartWorks program planner or any other document, that certifies your actual enrollment pattern (D-plan).

Clearly, it takes a great deal of time and effort to work out a desirable major program, and the more individualized it is, the more thought, consultation, and possible committee action will be required. Be sure to become familiar with the descriptions in this Catalog. Highly structured standard majors, such as Engineering Sciences, and worthwhile individualized ones, although quite opposite in nature, are likely to require the earliest starts and most careful planning and early discussions. Bear in mind that most advanced and many fundamental courses are offered only once a year, and that quite a few are offered only every other year. As indicated earlier, it is to allow the careful planning especially needed for the Dartmouth Plan that this Catalog covers a two-year period.

Frequently students are reluctant to sign up for a major because they do not feel sure enough that they are ready to make a suitable choice. They should not worry unduly in this respect: what is necessary is to make a start. Many students change to another major; there is no penalty of any sort for making a change, but note that students may not change major (or type of major, including the addition of a second major) later than the first week of their last term in residence.

As indicated earlier in this Catalog, there are three main possibilities for majoring, namely, the Standard Major, the
Modified Major, and the Special Major. You should be sure to review these descriptions. As suggested by the name, most students pursue a Standard Major as offered by most departments and programs.

Multiple Majors

Many students major in two or more separate fields, often quite dissimilar, for instance, Theater and Government. To do so, the student must submit separate major plans to each department or program, approved by all Chairs. Multiple majors may not be within the same department or program except when a department/program offers separate and dissimilar majors. (Astronomy and Physics, French and Italian, and Spanish and Portuguese). The culminating experience must be satisfied for all majors. In designing the multiple major program, it is not possible to use any individual course as part of more than a single major (although a course may be part of one major and prerequisite to the other, or prerequisite to each major). A student may start with one major and later add, through appropriate submission, a second or third. Any of the majors may be Standard, Modified, or Special. The student may at any time decide to return to a single major by officially dropping one or more of the majors. See the Registrar's website for detailed instructions on procedures. The regulation concerning the deadline for making a change of major (or type of major) is not intended to keep a student who has been carrying a multiple major from dropping one or more majors in the last days of the term preceding graduation.

*NOTE: Invalid major combinations are not approved within the same department/program and departments and programs should take care when advising to identify any conflicting majors.

Preparation for Graduation

A Dartmouth student of the Class of 1988 or later class is eligible for graduation at the end of any term in which he or she has completed at least six terms in residence with course count of at least thirty-five and the various other requirements, including the completion of the major as certified by the major department or program.

Students whose enrollment patterns indicate that they plan to receive the degree during the current academic year must apply for the degree. Students are annually notified of deadlines and instructions for this process. The student must indicate exact plans for completing the minimum 35 credits required, that is, by what combination of R, O, X, and T study the total will be achieved. Students who have studied elsewhere and failed to supply a suitable transcript of credits eligible for transfer, and certain others, may not be approached since they do not appear to be current degree candidates. It is up to them and to any student who wishes to graduate at other than the usual time to inform the Office of the Registrar and his or her major department or program of this intention. No student who has failed to apply for the degree will be graduated. In addition, students who have or will have met graduation requirements after twelve terms (or fewer if a transfer student and if sufficient credits have been transferred to Dartmouth) are expected to apply to be graduated. They will be included on the graduation list.

Students are advised not to study off-campus or to plan to transfer credits in their last term, particularly if it is the spring term: the only acceptable evidence of work performed is a Dartmouth faculty grade report or an official transcript in the case of transfer credits. Students who do hope to transfer credits in time for graduation must, therefore, order an official transcript to be delivered directly to the Registrar's Office at the earliest possible date.

It is the duty of each student to keep track of progress in completing the various requirements. Each student has access to DartWorks, a degree audit report that is available on DartHub. The audit indicates the current standing of the student with respect to each degree requirement (other than those pertaining to a few major(s)).

No student may graduate who has any course recorded as incomplete, ON, or AD, no matter how large the course count. The problem may be resolved by normal completion of the course or conceivably by a drop without penalty if authorized by the Registrar and if the final course count is still at least thirty-five. Otherwise, the course may be assigned the grade of E without credit, provided again the final course count is still adequate.

Academic Standing

All students are considered to be in good academic standing who are eligible to enroll the next term. Note, however, the following regulation:

A student not in good academic standing as a result of his or her performance in the last term of enrollment preceding intended graduation, but otherwise eligible for graduation, may graduate only with special approval of the Committee on Standards.

Honors

General (Latin) Honors

The regulations of the following three paragraphs apply to the awarding on graduation of the degree of Bachelor of Arts summa cum laude, magna cum laude, or cum laude:

A student with final average exactly matching or exceeding the final cumulative average of the lowest standing of the past three academic years' top 5% of graduates will be awarded the degree summa cum laude.

A student with lower standing but with final average exactly matching or exceeding the final cumulative average of the lowest standing of the past three academic
years' top 15% of graduates will be awarded the degree magna cum laude.

A student with lower standing but with final average exactly matching or exceeding the final cumulative average of the lowest standing of the past three academic years' top 35% of graduates will be awarded the degree cum laude.

The lowest averages for these three groups of graduates in the three academic years 2019-2021 were, in descending order 3.94, 3.86, 3.72. Accordingly, these values govern the awarding of the corresponding honors in 2021-2022.

A Senior Fellow may be eligible for these honors by application of the regulations already given, provided that the Committee on Senior Fellowships certifies that the level of the student's work during the fellowship year justifies the awarding of the honor.

The students who attain the first and second highest standings in each graduating class shall be given respectively valedictory and salutatory honors (which shall not necessarily consist of appointments as commencement speakers). No student shall be eligible for salutatory or valedictory honors who has not been for at least three years a student at Dartmouth College.

The following selection process was established in 2014 for determining the Valedictory speaker:

- The Registrar determines in early spring term the possible Valedictory candidates based on the highest GPA in the graduating class, and informs the Dean of the College and the Dean of Faculty of those candidates.
- Students in this group are asked by the Dean of the College whether they are interested in speaking at Commencement if they attain Valedictory rank and, if they are, that they inform the Dean of the College of this.
- The candidates interested in speaking are considered by a Committee consisting of the Dean of Faculty, two of the Associate Deans of Faculty, the Dean of the College, and two of the Associate Deans of the College.
- This committee will devise and articulate a set of criteria and make a recommendation directly to the President.
- The President makes the final decision about who will speak at Commencement. The students are informed of the decision by the Dean of the College or designate.
- If, in a particular year, none of the Valedictory candidates wishes to speak, the Salutatorian candidates will be invited to be considered. The same process should be used as the one for selecting the Valedictory Speaker.

**Honor List**

At the close of the spring term an Honor List is calculated for all the classes, based upon the work of the year starting the previous summer, and divided into three groups; to be included, students must have been enrolled for at least two of the terms, have received at least five regularly recorded grades (i.e., other than CT, NC, or NR), and have no standing of Incomplete in any course for the year. The regulations of the following three paragraphs apply:

An eligible student with annual average exactly matching or exceeding the annual average of the lowest standing of the previous year’s top 5% of eligible students will be placed in the first honor group (i.e., will be designated as a Rufus Choate Scholar) for the year.

An eligible student with lower standing but with annual average exactly matching or exceeding the annual average of the lowest standing of the previous year’s top 15% of eligible students will be placed in the second honor group for the year.

An eligible student with lower standing but with annual average exactly matching or exceeding the annual average of the lowest standing of the previous year’s top 35% of eligible students will be placed in the third honor group for the year.

Approximately January 1 in the current academic year the annual averages for the past academic year of all the eligible students of that year (as defined in the first paragraph) will be examined and the lowest annual averages for the students in the top 5%, top 15%, and top 35% will be determined. These values accordingly govern the placement in honor groups for 2021-2022. Preliminary examination suggests that the required averages will closely approximate, in descending order 4.00, 3.96, 3.85.
The following persons are eligible for regular membership:

- Kate Soule is secretary.
- Robyn Barbato is the treasurer.
- Dean E. Wilcox is the vice-president.
- P. Smith is the president.
- Douglas W. Van Citters is the chapter contact.

The following persons are eligible for regular membership:

1. Any undergraduate who on October 15 of the fall term three years after matriculation has completed at least eight R (Residence) or O (Off-Campus) terms at Dartmouth College, and who then ranks in cumulative average among the twenty highest in that category. To be considered on October 15, such a student should have completed (with final grades) all courses for previous terms; if such is impossible, the student may present the reasons to the Chapter Secretary for due consideration.

2. Any student who at the time of graduation from Dartmouth College has a cumulative average no lower than the average achieved by graduates within the top tenth of those graduating in the preceding three academic years. If the application of this figure results in the selection of less than ten percent of the graduating class, additional students will be invited to join Phi Beta Kappa to bring the total membership to ten percent of the graduating class.

3. No student who has been suspended from Dartmouth College is eligible for membership in Phi Beta Kappa.

Note: The cumulative average required of candidates during the academic year 2021-2022 is 3.90 which was the dividing line for the top tenth of those graduated in the academic years 2018-2019 to 2020-2021.

**The Society of Sigma Xi**

Sigma Xi is a scientific honor society, originally established at Cornell University in 1886. Its mission is to honor scientific accomplishments, to encourage and enhance the worldwide appreciation and support of original investigation in science and technology, and to foster a creative and dynamic interaction among science, technology, and society. A fundamental responsibility of the Society is honoring research scientists or those with aptitude for research. Candidates are nominated by full members of Sigma Xi. Membership is determined by a vote of the Dartmouth College chapter’s Committee on Admissions. The president of the Dartmouth College chapter is Dean E. Wilcox, the vice-president is Timothy P. Smith, the treasurer is Douglas W. Van Citters, and the secretary is Robyn Barbato.

The following persons are eligible for associate and full membership:

1. Associate Membership. Nominees for Associate Member should be seniors or early graduate (e.g., master’s) students who have demonstrated strong aptitude for scientific research. They must have done research that has resulted in an excellent written report, which should be available to the Committee on Admissions if requested. They should also have a demonstrated interest in further study and/or research in a pure or applied science.

2. Full Membership. Nominees for election or promotion to Member should be graduate students in the final stage of a Ph.D. program, or those who have already completed the Ph.D. (including postdoctoral associates and faculty members). They should have demonstrated noteworthy achievement in research, as evidenced by a completed Ph.D. dissertation or at least two published papers on their research, at least one of which lists the nominee as the principal author.

**Fellowships and Scholarships**

**James O. Freedman Presidential Scholars**

The James O. Freedman Presidential Scholars Program was initiated under the auspices of the Faculty of Arts and Sciences in 1988 to encourage and facilitate the attainment of intellectual and artistic excellence among Dartmouth undergraduates. In 2007 the program was renamed in honor of James O. Freedman who was President of Dartmouth College from 1987 through 1998. The James O. Freedman Presidential Scholar Research Assistantships offer students the opportunity to serve as research assistants to individual members of the faculty. This venture in student-faculty collaboration introduces third-year students to approaches and methods of research that may prove useful in their own future scholarship. By working closely on a project with individual faculty mentors, juniors receive apprenticeship training in research that may facilitate pursuit of an honors thesis or Senior Fellowship.

The assistantships are two terms in length and must be completed during the junior year. The two terms can be sequential or may be split by mutual agreement of the student and directing faculty member. Assistantships are expected to be completed during R (residence) terms when both the student and faculty are on campus, but students may petition to waive this requirement if there are compelling reasons to do so. Petitions must be submitted to the Office of Undergraduate Advising and Research prior to start of the research assistantship. As assistants, students are expected to work seven to twelve hours per week and will receive a stipend. If the second term’s work is deemed worthy of academic credit as Independent Study by the directing faculty member (subject to departmental criteria),
one course credit may be given if the student so requests. Students must register during the normal registration period for Independent Study credit through the faculty mentor’s department/program and the Registrar. Assistantships for which Independent Study credit is to be granted will involve a greater commitment of time than non-credit Assistantships. Students who do not elect or qualify for this option will receive the stipend for the second term of their Assistantships. Students may not receive both stipend and credit for the same work.

Upon completion of two terms of research and submission of all required documentation, the student’s transcript will carry the notation James O. Freedman Presidential Scholar Research Assistant. To be designated a James O. Freedman Presidential Scholar at Commencement, students must successfully complete the honors program in their major department/program or receive honors for the project for which they were appointed a Senior Fellow.

Eligible students are notified in winter term of their sophomore year. To be eligible, students must have attained a grade point average at the end of the fall term that places them in the top 40% of their class. Students interested in the program are responsible for contacting potential faculty mentors and arranging interviews. Faculty select their Presidential Scholars on the basis of these interviews. If the number of students applying for the program exceeds the number of Presidential Scholar stipends available, acceptance to the program will be made on the basis of academic standing and the relevance of the assistantship to the student’s course of study.

Students may obtain further information in the Office of Undergraduate Advising and Research.

Awards for Graduate Study

The office of Fellowship Advising oversees the application process for multiple national and international fellowships (including the Fulbright, Rhodes, Marshall, and Schwarzman) and for Dartmouth College post-graduate fellowships and prizes.

Dartmouth-funded grants are awarded each year to seniors and recent graduates (up to five years after graduation) for graduate study or to pursue research or an independent project in the U.S. or abroad. There are three categories of Dartmouth post-graduate fellowships:

- Fellowships for graduate study
- Fellowships for post-graduate projects (including a special grant for applicants in the fields of architecture, urban planning, land conservation, historic preservation, architectural and urban history and/or art history)
- Prizes for seniors intending to pursue a career in the law

Information about the application processes for all grants can be found on the Fellowship Advising website.

Financial Aid

Scholarships, federal grants, subsidized and unsubsidized loans, and employment are administered by the Financial Aid Office for the benefit of students who are unable to meet the full cost of a college education through their own and their families’ reasonable efforts.

Scholarships and grants are gifts made to students with financial need and are offered as part of a financial aid ‘package’ that may also include loans and employment. Scholarship students continue to receive aid throughout their undergraduate years, for the first twelve terms of enrollment, as long as their need continues. Renewal applications must be filed each year. In addition to demonstrating financial need, students must make satisfactory progress toward the degree, as described fully in the Student Handbook.

Need-based College loans, Federal Perkins Loans, and both subsidized and unsubsidized Federal Direct Loans through the Federal Direct Lending Program enable the College to offer financial assistance each year to more students than could otherwise be aided.

Many employment opportunities are available to students on campus and in the community. These employment opportunities are for students who are eligible for Federal Work-Study as well as those who are not eligible. Employment information can be found at www.dartmouth.edu/~seo.

The Financial Aid Office can provide information concerning a variety of private and federal parent loan plans to supplement family resources and offer suggestions on other college financing options and plans. For full information on all available financial aid, families should contact the Financial Aid Office (McNutt Hall).

Additionally, current and prospective students can access financial aid general information and forms at https://financialaid.dartmouth.edu.

For financial aid purposes, students are considered to be sophomores at the end of the spring term of their first year following matriculation if they have completed three terms, or whenever they have a course count of 7; to be juniors at the end of the spring term of their second year following matriculation if they have completed five terms with 14 course credits, or whenever they have a course count of 17; to be seniors at the end of the spring term of their third year following matriculation if they have completed eight terms with 23 course credits, or whenever they have a course count of 26. For the purposes of this classification, a ‘completed term’ means a term in which the student had an enrollment pattern of R, O, X, or T and received Dartmouth credit for at least two courses. Students receiving credits upon matriculation will be considered to have completed one term of work if two or
more credits are granted, two terms if five or more credits are granted, and three terms if eight or more credits are granted.

Students participating in the Army ROTC program are eligible to apply for Army ROTC scholarships on a competitive basis to commence during their first year. Contact the ROTC Office in Leverone Field House for additional information.

**College Charges**

**Tuition Charges**
Tuition of nineteen thousand six hundred fifty-one dollars ($19,651) per term is charged each student for instruction, instructional facilities, and other services. Although this tuition charge covers the normal three-course load, students may, without permission or extra charge, elect a fourth course during each of four terms during their college career. After use of the four allowed four-course terms a supplementary charge of six thousand five hundred fifty dollars ($6,550) will be assessed. Students should consult the Student Handbook and the Regulations section of this Catalog for details of the regulations concerning extra courses. Students taking a two-course load receive no reduction in tuition.

The Trustees believe that all Dartmouth students should appreciate that the tuition charge covers about one half of the cost to the College of each student’s education at Dartmouth. For the remainder, he or she is the beneficiary of endowments received during the last two centuries from those who wish to support Dartmouth’s kind of education, from current gifts, and especially from the very generous support of the Dartmouth Alumni Fund.

Tuition charges listed above apply to the summer, fall, winter, and spring terms of the academic year 2021-2022. Charges for the summer term of 2022-2023 will be announced at a later date.

Students who take reduced course loads because of documented, verified disabilities, and whose disability-related circumstances, as determined by Student Accessibility Services (SAS), significantly affect the number of terms they need to be enrolled at Dartmouth to be graduated, may be eligible for reduced tuition. Permission from the Registrar for a reduced course load is not sufficient grounds for tuition reduction. Tuition-reduction requests to Campus Billing must be submitted after SAS approves a reduced course load. If a student who has been granted tuition reduction then takes a normal course load, the student must re-petition for reduced course load and reduced tuition in subsequent terms. Reduced tuition eligibility may also be reviewed if a student’s disability-related circumstances change significantly. For full information, inquiries about reduced course load should be sent to the SAS office, while inquiries about reduced tuition should be sent to Campus Billing.

**Room and Board Charges**
Students living in College residence halls are charged rents that vary depending on the quarters occupied. Room rent will be $3,523 per term for the 2021-2022 academic year. If College property is damaged, those found responsible are charged for the required repairs.

All students are required to purchase a nonrefundable dining plan each term they are enrolled in classes or living in College or College-approved housing. All first-year students will receive the Ivy Standard Unlimited plan. In addition, first year students may be charged $225.00 for meals during the Orientation program.

More information about dining plans and costs at Dartmouth can be found at the Dining Services (DDS) website (http://www.dartmouth.edu/dining/plans/). To make a dining plan selection, please visit the Dartmouth Card Office website (http://www.dartmouth.edu/~dartcard/)

Room and board charges are billed to students through their Dartmouth student account. Payment is due by the date indicated on the student account statement subject to a late charge if the payment deadline is not met. Please refer to regulations covering payment of student charges for information regarding assessment of late charges.

Room and board charges listed above apply to the 2021-2022 academic year which includes Summer term 2021 through Spring term 2022.

**Computing Equipment Charges**
All first-year and transfer students are charged for the required purchase of a basic package of computing equipment to be used in their education, unless granted a waiver by the Director of Computing. Ownership of adequate computing equipment would justify such a waiver. Purchase of computing equipment in addition to the basic package is at the option of the student.

**Class Dues**
At the beginning of their first-year undergraduate students are assessed a one-time charge of twenty eight dollars ($28). Funds collected from these charges will be made available to that class council over the four years that class is in attendance at the College.

**Document Fee**
In their first term of enrollment each undergraduate is assessed a one-time document fee of one hundred and ninety-four dollars ($194). This fee entitles the student to an unlimited number of official transcripts. Additionally, the fee covers a number of services offered by the undergraduate Career Services Office. The fee covers
these services while the student is in attendance at the college and post attendance it covers unlimited transcripts.

**General Student Services Fee**
All undergraduate students are assessed a $359 General Student Services fee each term enrolled. The general fee partially supports a variety of services provided for all enrolled undergraduate students including but not limited to technology costs, library services and facilities, and recreation activities and facilities.

**International Services Fee**
The $104.00 per term international services fee helps offset costs generated by the visa sponsorship process and the support services offered to international students. This fee is assessed to all actively enrolled international students at the College—both undergraduate and graduate. An international student for the purposes of this fee is defined as one who is not a U.S. citizen or a U.S. permanent resident, and who holds, or is applying for, a valid U.S. visa or immigration status under Dartmouth’s sponsorship.

**Student Activities Fee**
All undergraduate students are assessed a $106 Student Activities fee for each term in residence. Funds collected from these charges will be used to support the Student Assembly, other co-curricular organizations, and campus-wide cultural, educational, social, and athletic activities. Student Activities fee funds are managed directly by students through the Council on Student Organizations (COSO).

**Health Access Fee**
This $100.00 per term fee supports the College’s continuing commitment to providing health services to enrolled undergraduate, graduate and professional students. These services include those listed on the College’s Health Service website at: http://www.dartmouth.edu/~health/

**Health Insurance Charges**
All full-time students must purchase the Dartmouth Student Group Health Plan (DSGHP) unless they complete the waiver process. A nonrefundable fee of $4,163.00 will be billed to the student account, except those having an approved waiver, in early July for the 2021-2022 plan year. To begin the waiver process, go to the DSGHP website located at: https://students.dartmouth.edu/health-service/fees-insurance/insurance/waiver-information . Please note that waivers received after July 31, 2021 will incur late fees. https://students.dartmouth.edu/health-service/sites/students_health_service.prod/files/students_health_service/wysiwyg/2021_dsghp_waiver_deadlines_fees_1.pdf

**Supplemental Course Fees**
In limited circumstances supplemental fees may be assessed students enrolling in certain courses. Supplemental course fees must meet the standards detailed below to be processed on the student bill. Courses for which such fees will be levied will be identified in any course descriptions published in this Catalog or its supplements.

Special course fees must be recommended to the Executive Vice President by the responsible faculty Dean, and generally will be approved only when the following three criteria are met:
1. The fee must be required of each member of the class,
2. The fee must be the same for each class member, and
3. The services or goods related to the fee must be warranted by special circumstances and not be readily available from local vendors.

Students will be notified of actual fee amounts no later than the first week of class.

**Miscellaneous Charges**
The following miscellaneous fees and penalties are commonly applied:

A penalty of fifty dollars ($50) is imposed on any student who fails to check-in by the prescribed deadline at the opening of any term.

A non-refundable, non-petitionable application fee of $2,200 is assessed for the winter, spring, and summer terms. No fee is assessed for fall term.

A separate charge will be assessed for late payment of any student account bill. Payment is due and payable not later than the due date indicated on the billing statement. If payment is not made by the specified due date a late charge equal to 1.5% of the amount payable will be assessed.

A charge of twenty-five dollars ($25) will be assessed when a personal check or on-line payment is offered in payment of charges on a student’s account and the check or payment is not honored.

**Student Penalty Fees and Fines Policy**
Fines and penalty fees may be assessed to students for various rule infractions and violations of policy. With due notification penalty fees and fines may be charged to the student’s Administrative Fees and Fines Account. Failure to pay such fines or penalties may prevent a student’s registration or release of transcripts or a diploma.

The Executive Vice President shall review and in consultation with the Student Assembly and Graduate Student Council approve all student fines and penalty fees that may be assessed. Student fines shall be consistently applied within the Dartmouth Community and will be approved only when the following criteria are met:
The amount of the fine or assessment must be reasonably related to the costs and/or seriousness of the infraction or violation of policy.

Revenue realized from the assessment of penalty fees and fines will be recorded to a general revenue account of the College. Generally, such revenue may not accrue to the department that assesses the fine.

Administrative costs associated with assessing and posting fines, hearing appeals, and collecting payments can be substantial, accordingly, alternative means to ensure compliance with rules and regulations must be considered before a penalty fee or fine will be approved.

Once the Executive Vice President has approved a penalty fee or fine, the following requirements or procedures must be met:

All rule infractions and violations of policy which will result in the assessment of a fine or penalty fee, must be identified in the Student Handbook and appropriate College or departmental materials and mailings. Specific reference shall be made in the Student Handbook that fines and penalty fees may be appealed.

Departmental materials shall include the amount of the fine, a statement of purpose, the circumstances under which penalty fees or fines are assessed, and the consequences of noncompliance.

Departments must publicize in their materials and mailings or by other means that an appeals process exists for students or parents who believe that their individual circumstances warrant an exception to assessment of the penalty fee or fine. Specific information should be available in connection with the handling of appeals and appeals must be heard and resolved within a timely manner.

Students who commit rule infractions subject to a fine or penalty must be notified that a violation has occurred and that a charge is being assessed. If a fine is caused by the student’s failure to meet a published deadline, notification of the fee is not required.

Fines and penalty assessments must be submitted to the Dartmouth Card Office within 30 days of the date the violation has been confirmed. Fees and fines may not be charged to a student’s administrative account once the 30-day period has lapsed or the student is no longer enrolled because of graduation or withdrawal from the College. In cases where fees are assessed to reimburse the College for the actual cost of damages, fines must be submitted to the Dartmouth Card Office as soon as possible after final costs have been determined, but no longer than 30 days. Note: departments and offices may not receive or deposit direct payments from students for fines or penalty fees. They must be submitted to the Dartmouth Card Office.

If it is determined that a fine has been assessed incorrectly or waiver of the penalty fee has been approved as a result of the appeals process, the appropriate credit must be expeditiously applied to the student’s Administrative Fees and Fines account.

Regulations Covering Payment of Student Account Charges

Account statements for tuition, room, and board will be available on D-Pay, Dartmouth’s electronic billing and payment system, approximately six weeks before the beginning of each term. When the account statement is available, an electronic mail message is sent to the student and anyone else authorized by the student. Payment is due approximately 25 days after the statement is available; the exact due date will be indicated on the statement. If payment is not made by the specified due date, a late charge equal to 1.5% of the amount payable will be assessed.

No student will be permitted to enroll for any term unless the total amount due, including tuition, room rent, and applicable board charges has been paid in full.

The flexibility of the Dartmouth Plan makes it possible for an upper-class student, through a change in term patterns, to incur a tuition charge or other charges after statements have been produced. In such instances, since tuition, room charges, and dining plan charges are fixed or determined prior to the start of the term, the student must pay these charges by the payment deadline established even though a statement reflecting the charges may not have been produced and made available.

All students enrolled at the College have an account in their name through which tuition, room and board, and other costs of attendance are billed. Periodic account statements reflecting charges and credits posted to this account will be available on D-Pay. Financial aid awards which have been confirmed and documented, but not posted to the student’s bill, can be considered as anticipated credits in calculating the balance due and any known when the statement is produced will be reflected on the statement. All necessary steps for processing such awards must be met before they will be accepted as deductions.

No transcript of a student’s record will be issued until amounts due the College have been paid, nor will a senior receive a diploma until all College and community financial commitments have been met. In instances where a student’s account becomes delinquent through flagrant neglect, the student may be subject to disciplinary action. In such cases no credit will be allowed for the work of terms to which the unpaid charges relate until all overdue charges are paid in full.

In those instances where a personal check or online payment is offered in payment of charges on a student’s account and the check or on-line payment is not honored, a charge of twenty-five dollars ($25) will be assessed. If the returned check or rejected on-line payment was the means
of meeting an amount due or registration deadline, the
deadline will not be considered met and the appropriate
penalties relating to failure to meet the deadline may be
assessed. The College reserves the right to demand
payment by money order, certified check, or other mode of
payment acceptable to the College in instances of repeat
offenders. Additionally, flagrant or habitual offenders may
be subject to disciplinary action.

Payment Plans
Dartmouth College provides students and their families the
means to pay all or part of their expenses in interest-free
installments over the course of the term. There is a $25 fee
per term to participate in the payment plan. Students and
their families may enroll in the plan in D-Pay, Dartmouth's
online billing and payment system, when the term's billing
statement has been posted. Students and their families
decide each term whether they would like to participate in
the payment plan.

Refund Policy
The College policy on refunds for students withdrawing
from the College, whether voluntarily or by dismissal, is
set forth below.

Tuition: Refunds for students who withdraw after tuition
has been paid, but prior to registration and the first day of
classes, will be 100 percent of tuition. After the beginning
of classes, refunds will be calculated as follows: a refund
of 90 percent for withdrawal during the first week of the
term, a refund of 75 percent for withdrawal during the
second and third weeks of the term, a refund of 50 percent
for withdrawal during the fourth week of the term, and a
refund of 25 percent for withdrawal during the fifth week
of the term. No refund will be made after the fifth week of
the term.

Board: Refund shall be calculated on a pro rata basis for
any student who withdraws voluntarily or who is dismissed
from the College during the term.

Residence Hall Room Rents: The policy for residence hall
room rent is identical to the tuition refund policy: 100%
before classes begin; 90% during the first week; 75%
during the second and third weeks; 50% during the fourth
week; and 25% during the fifth week. There is no refund
after the fifth week. This policy applies to all dormitory
rooms and to room rents in College-owned fraternities and
organizations. The effective date for the room rent refund
will be the date upon which the student vacates the room
and returns the room key.

Other Charges: Charges for computing equipment and for
the Dartmouth Student Group Health Plan are
nonrefundable. Other miscellaneous fees and charges,
including student activity fees and class dues, are
nonrefundable if the student withdraws after registration
and the first day of classes.

The only exception to this policy will be for students
receiving Title IV, HEA federal financial aid who are
attending Dartmouth for the first time and who withdraw
on or before the 60 percent point in time of their first term
of enrollment. Refunds for these students will be calculated
using the pro rata refund formula prescribed for these
particular students by federal regulations. Please consult
with Undergraduate Financial Aid Office for particulars
and examples.

In the case of a withdrawing student receiving Dartmouth
scholarship assistance or federal financial aid, the share of
the refund returned to the student or family is dependent
upon a number of factors. The amount of scholarship
retained and/or the amount of repayment due to federal
programs must be calculated in accordance with applicable
regulations and formulas. Please consult with
Undergraduate Financial Aid Office for particulars and
examples.

Refunds, scholarship adjustments and repayments of
federal funds are recorded to the student’s account. All
requests for student account refunds shall be submitted in
writing to Campus Billing and DartCard Services, and any
balance due the student upon the making of such
adjustments shall be paid to the student within 30 days.

In any instance where it is felt that individual
circumstances may warrant exception to the Refund
Policy, the student may appeal in writing to the Controller.

NOTE: For complete information regarding student life,
and appropriate regulations, consult the Student
Handbook

Student Residence
Dartmouth is a residential college. Therefore, all first-year
students who are not married or in a college-recognized
domestic partnership are required to live on campus during
their first three academic terms at Dartmouth. Housing is
not required after the first year. All remaining registered
undergraduates who are not married or in a college-
recognized domestic partnership may live in College
undergraduate housing or in a College-recognized
coed/fraternity, sorority, or undergraduate society house if
space is available. Students who reside off campus during
an enrolled term must file a local address as part of the on-
line check-in process. Enrolled Dartmouth students may
not live in coed, fraternity, sorority, or undergraduate
society houses that are not recognized by the College.

NOTE: For complete information regarding residence life
and appropriate regulations, consult the Student
Handbook, the Office of Residential Life publication
Welcome Home, or the web site
Graduate Study

Professional Schools

The Professional Schools of Dartmouth College are the Geisel School of Medicine, the Thayer School of Engineering, and the Tuck School of Business. Information on their entrance requirements, courses of instruction, and other matters is published in separate catalogs, which may be obtained from the Registrar of each School. For requirements for the degrees of Doctor of Medicine, Master of Public Health, Bachelor of Engineering, Master of Engineering Management, Master of Engineering, and Master of Business Administration, see the catalogs of the Geisel School of Medicine, the Thayer School of Engineering, and the Tuck School of Business, respectively.

Graduate Degrees from the Guarini School of Graduate and Advanced Studies

The Frank J. Guarini School of Graduate and Advanced Studies awards all of Dartmouth’s PhD, M.S. and M.A. degrees across a broad range of programs, including several interdisciplinary programs and doctoral programs connected to the professional schools at Dartmouth. The requirements for the degrees awarded by the Guarini School of Graduate and Advanced Studies and the types of fellowship support available to graduate students in these programs are described below. Inquiries regarding graduate study should be addressed to the department to which admission is sought. Visit our website at: https://graduate.dartmouth.edu/

Graduate Special Students: Under special circumstances holders of the Bachelor’s degree may be admitted to College courses and register as Graduate Special Students. Permission to register must be secured from the Dean of the Guarini School of Graduate and Advanced Studies and from departmental program offices.

Grades: Course work and grades are only one component of graduate education, and the grading system is designed to reflect this. The following grades will be used in courses acceptable for credit toward a graduate degree:

HP: High Pass, indicating work of quality which is distinctly superior to that normally expected of a graduate student.

P: Pass, indicating work of good quality, worthy of graduate credit. This would be the most common grade denoting satisfactory graduate performance.

LP: Low Pass, indicating work which is acceptable for graduate credit, but in which the student exhibited one or more serious deficiencies. Graduate programs may limit the number of LP grades acceptable for a degree.

CT: Credit, indicating satisfactory work in certain courses, such as research courses, in which assignment of a grade of HP, P, or LP is considered inappropriate. The grade CT is not intended as a routine alternative to the HP, P, and LP system, and CT is the only passing grade in a course in which it is used. Approval of the use of CT in any course must be obtained from the Council on Graduate Studies by the graduate department offering the course.

NC: No Credit, indicating work which is not acceptable for graduate credit.

When it is not possible to assign a grade in a course at the end of the term, the instructor may request permission to record the temporary status of Incomplete. Use of Incomplete will require approval of the Graduate Registrar and the request must include an agreed upon completion date. All Incompletes for any term must be removed by the end of the following term and may be extended only upon approval of the Dean of Guarini School. Incomplete grades which have not been resolved by submission of a permanent grade will revert to No Credit after the stated deadline.

The designation ON (On-going) may be used when the work of a course extends beyond the limit of a single term, such as in Research Rotation. All ON grades must be resolved before the degree is awarded.

Graduate students enrolled in courses for which they are not receiving graduate credit will be graded using the undergraduate grading system.

Transfer of Credit: Upon recommendation of the department accepting the student for graduate work, credit for graduate courses (not research) taken may be granted by the Dean of the Guarini School. No more than three of the courses required for the Master’s degree or more than six for the PhD degree may be fulfilled in this way.

Course Changes: Courses may be added, dropped, or exchanged with no charge at any time during the first two weeks of the term. The dropping of courses after the first two weeks of a term requires permission of the adviser and the Graduate Registrar. Appropriate forms for adding or dropping a course are available from the Guarini School of Graduate and Advanced Studies and from departmental and program offices.

It is expected that the requirements for the PhD degree will be completed no later than seven years after initial enrollment, unless the student enters with a Master’s Degree in his or her field of proposed study, in which case the student is expected to complete the doctorate in five years. Failure to complete the work in the time periods specified or failure to meet the academic standards of the student’s graduate program shall necessitate reevaluation of the student’s progress and may result in a notice of termination.
The Degrees of Master of Arts or Master of Science

Graduate work is offered leading to the degree of Master of Arts in the fields of comparative literature, liberal studies, and digital musics, and to the degree of Master of Science in chemistry, computer science, earth sciences, engineering sciences, health care delivery science, health policy and clinical practice, physics and astronomy, and quantitative biomedical sciences. Refer to the Thayer School catalog for graduate work leading to the degree of Master of Engineering Management (MEM) or Master of Engineering (MEng) and the Geisel School catalog for the degree of Master of Public Health (MPH).

To receive the degree of Master of Arts or Master of Science from Dartmouth College, a graduate student must have spent at least three terms in residence at Dartmouth and must have received credit for eight courses at the graduate level. These courses may be replaced in part by research or special study approved and supervised by the department accepting the student for graduate work, provided that not more than four of the required courses may be so replaced. Additional requirements may be imposed by the individual departments.

Candidates whose preparation is deemed deficient by the department accepting the candidate may be required to correct this deficiency by taking courses in addition to those required for the degree.

Thesis: A thesis is ordinarily required of candidates for the Master’s degree but on recommendation of the department in which the degree is sought this requirement may be waived.

The Degree of Doctor of Philosophy

The Guarini School of Graduate and Advanced Studies offers programs leading to the PhD degree in the following areas: biochemistry and cell biology; biological sciences; chemistry; cognitive neuroscience; computer science; earth sciences; ecology, evolution, environment & society (EEES); engineering sciences; experimental and molecular medicine; health policy and clinical practice; integrative neuroscience; mathematics; microbiology and immunology; molecular and systems biology; physics and astronomy; psychological and brain sciences; and quantitative biomedical sciences. Refer to the Medical School catalog for the program leading to the Doctor of Medicine (MD) degree.

The minimum residence requirement for the PhD degree is six terms (two academic years). Degree requirements are established by the individual departments. Further information about these programs may be obtained by looking under the offerings of the appropriate department in this Catalog or by writing to the chair of that department.

Fellowships

Most students in the Guarini School of Graduate and Advanced Studies receive financial assistance through a program of Dartmouth fellowships, scholarships, and loans. These are supported through Dartmouth funds and through federal and private fellowships and traineeships.

Fellowships for PhD students carry stipends of approximately $29,652 for the 2018-2019 year. Scholarship awards normally cover full tuition. For some Master’s programs, there are opportunities for summer fellowships and scholarships.

Stipend supported students who participate in the Dartmouth Student Group Health Plan (DSGHP) and receive a full tuition scholarship also receive a credit on their student accounts to offset the DSGHP expense.

Insofar as is consistent with the terms of the individual awards, each student’s program of course work, teaching, and research is designed to promote most effectively his or her academic progress without reference to the source of financial support. Efforts are made to avoid large discrepancies in the size of stipends.

The Degree of Master of Arts in Liberal Studies

The Guarini School of Graduate and Advanced Studies offers a graduate program leading to the degree of Master of Arts in Liberal Studies (MALS). This program, which is also available to current Dartmouth employees, features an interdisciplinary approach to advanced study in the liberal arts. It is intended for students dedicated to furthering their liberal education by both directed and independent study.

MALS participants design an individualized plan of study in consultation with the program’s faculty advisors, choosing courses from a series of special interdisciplinary courses offered by the MALS Program as well as from regular offerings of the College. Completion of the MALS coursework normally requires a minimum of two summers plus another term of study at Dartmouth. While it is possible to take courses on a year-round basis, a student must be in residence for a minimum of one summer, participating in two summer symposia or one symposium and an approved symposium substitute. All MALS students also produce a thesis as the final program component to receive the degree.

Dartmouth College’s MALS program is a member of the Association of Graduate Liberal Studies Programs. For more information on the MALS Program at Dartmouth, visit their web site http://www.dartmouth.edu/~mals/ or send an e-mail to: MALS.Program@Dartmouth.EDU.

Special Interdisciplinary Training Programs

The Guarini School offers several interdisciplinary training programs including Medical Physics, MD/MS Program in
Biomedical Engineering, PhD Engineering Innovation Program, MD/PhD, and PhD/MBA.
Course Election

Students elect their courses for the following term in the preceding regular term using DartHub. The details are explained on the Registrar’s website for each term, which is made available to students just before course election. The Timetable of Class Meetings includes an up-to-date listing of courses scheduled to be offered and indicates any courses with limits on enrollment or which require permission of the instructor. It also includes the most accurate and up-to-date information on the distributive and world culture attribute associated with the course. Students should pay close attention to this and note that it may not match what is listed elsewhere. For example, the information on the Timetable supersedes information that may appear next to courses in this Catalog. Exact dates of when the Timetable of Class Meetings becomes available are published in the academic term calendar. Students who elect courses late lose priorities in limited enrollment courses.

Prerequisite

Some courses have prerequisites which are stated in terms of class standing in college, the requirement of the completion of certain specified courses, and/or the obtaining of instructor permission. While some departments/programs use DartHub for prerequisite checking, some list prerequisites in this Catalog only. In either case, the student is responsible for meeting prerequisite requirements.

Numbering and Level

The numbering of each course indicates the level of the course. Numbers 1-9 are used primarily to designate courses on an introductory level; numbers 10-79 are used for the general course offerings of the department or program. The significance of the various levels depends on the needs of the department or program, but the higher numbers generally indicate courses of more advanced and specialized nature. Numbers 80-89 are used for certain special types of courses, such as seminars, thesis courses, independent study, and honors courses. The numbers 90-99 are used for certain advanced undergraduate major courses. Numbers 100-299 are used for graduate courses. Special topics courses, and certain other related courses, are numbered using a two digit leading number followed by a "point," then a two digit number starting with .01 for the first topic, .02 for the next, etc.

Time Sequence

In the course listings to be found on the following pages, below the line with the course number and the title there appear in most cases two-digit numbers, indicating the year, and letters F (fall), W (winter), S (spring), or X (summer), to show the term(s). In most cases, a symbol follows (after a colon) to indicate the time sequence(s) in which the course is to be offered, usually according to the following weekly schedule.

65-Minute periods three times weekly:

<table>
<thead>
<tr>
<th>Time</th>
<th>Course Day</th>
<th>Time</th>
<th>x-period</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>8L</td>
<td>MWF</td>
<td>7:30-8:35</td>
<td>x-period</td>
<td>Th: 7:45-8:35</td>
</tr>
<tr>
<td>9L</td>
<td>MWF</td>
<td>8:50-9:55</td>
<td>x-period</td>
<td>Th 9:05-9:55</td>
</tr>
<tr>
<td>10</td>
<td>MWF</td>
<td>10:10-11:15</td>
<td>x-period</td>
<td>Tu 12:15-1:05</td>
</tr>
<tr>
<td>11</td>
<td>MWF</td>
<td>11:30-12:35</td>
<td>x-period</td>
<td>Tu 12:15-1:05</td>
</tr>
<tr>
<td>12</td>
<td>MWF</td>
<td>12:50-1:55</td>
<td>x-period</td>
<td>Tu 1:20-2:10</td>
</tr>
<tr>
<td>2</td>
<td>MWF</td>
<td>2:10-3:15</td>
<td>x-period</td>
<td>Th 1:20-2:10</td>
</tr>
</tbody>
</table>

50-Minute periods four times weekly:

<table>
<thead>
<tr>
<th>Time</th>
<th>Course Day</th>
<th>Time</th>
<th>x-period</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>8S</td>
<td>MTuThF</td>
<td>7:45-8:35</td>
<td>x-period</td>
<td>W 7:45-8:35</td>
</tr>
<tr>
<td>9S</td>
<td>MTuThF</td>
<td>9:05-9:55</td>
<td>x-period</td>
<td>W 9:05-9:55</td>
</tr>
</tbody>
</table>

110-Minute periods twice weekly:

<table>
<thead>
<tr>
<th>Time</th>
<th>Course Day</th>
<th>Time</th>
<th>x-period</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>10A</td>
<td>TuTh</td>
<td>10:10-12:00</td>
<td>x-period</td>
<td>W 3:30-4:20</td>
</tr>
<tr>
<td>2A</td>
<td>TuTh</td>
<td>2:25-4:15</td>
<td>x-period</td>
<td>W 4:35-5:25</td>
</tr>
<tr>
<td>3A</td>
<td>MW</td>
<td>3:30-5:20</td>
<td>x-period</td>
<td>M 5:30-6:20</td>
</tr>
<tr>
<td>3B</td>
<td>TuTh</td>
<td>4:30-6:20</td>
<td>x-period</td>
<td>W 5:30-6:20</td>
</tr>
<tr>
<td>6A</td>
<td>MW</td>
<td>6:30-8:20</td>
<td>x-period</td>
<td>Tu 6:30-7:20</td>
</tr>
</tbody>
</table>

180-Minute period once weekly:

<table>
<thead>
<tr>
<th>Time</th>
<th>Course Day</th>
<th>Time</th>
<th>x-period</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>6B</td>
<td>W</td>
<td>6:30-9:30</td>
<td>x-period</td>
<td>Tu 7:30-8:20</td>
</tr>
</tbody>
</table>

It should be noted that there are two possible modes of conducting classes in the 9 sequence, depending upon the instructor’s preference for frequent meetings and need for use of x-periods.
Note that time sequences with different codes do not conflict, with the following exceptions: 3A and 3B conflict; 6A and 6B conflict.

Laboratory periods are most commonly scheduled in the afternoon, but morning and evening sessions are also held.

All undergraduate and many graduate offerings are marked, in the following department and program listings, with one or more of the term codes 13F, 14W, 14S, 14X, 14F, 15W, 15S; i.e., the codes for the seven terms included. The sequence or sequences in which a course is taught are indicated with term code followed by time sequence, as examples: 13F: 9; 14W, 14S: 12; or 14W: 9, 10, 2. Various courses are listed as ‘Arrange’ since the sequence has not yet been set or the meetings will be tutorial. Dartmouth reserves the right to alter, including cancel, course offerings if enrollments (fewer than five students), resources and/or other circumstances in the judgment of the Trustees and Administration require.

Weekly Schedule Diagram

Note: when scheduling a required class meeting outside the normally scheduled times, faculty members are encouraged to provide specific date and time information to students in advance.
African and African-American Studies

Chair: Ayo Coly
Vice Chair: Michael Chaney

Professors M. A. Chaney (English), A. A. Coly (AAAS, Comparative Literature), M. F. Delmont (History), L. Edmondson (Theater), S. E. Freidberg (Geography), J. W. Shipley (AAAS), K. L. Walker (French and Italian); Associate Professors R. M. Baum (AAAS, Religion), J. B. Bennett (English), K. J. Brown (English), T. D. Keaton (AAAS), D. K. King (Sociology), S. A. Moodie (English), M. White Ndounou (Theater), J. Rabig (History), N. Sackeyfio-Lenoch (History); Assistant Professors V. A. Booker (AAAS, Religion), M. Chochotte (AAAS), I. E. Kwayana (Film and Media Studies), A. H. Neely (Geography).

The African and African American Studies (AAAS) Program offers a multidisciplinary program designed to provide students with a critical understanding of the history, art and cultures, economics, politics and social organization of the African diaspora. The focused as well as comparative study of Africa, North America and the Caribbean are central components of the program. Students explore the innovative scholarship within the field of African and African American Studies while integrating theoretical perspectives and methodologies from various disciplines.

To view African and African American Studies courses, click here (p. 78).

Requirements for the Major

The AAAS major consists of eleven courses:

1. Two survey courses (must include one of the following: AAAS 9, AAAS 10 or AAAS 11).
   - One African survey course: AAAS 11, AAAS 14, AAAS 15, AAAS 18, or AAAS 19.
   - One African-American survey course: AAAS 10, AAAS 12, or AAAS 13.

2. Eight elective courses, including at least two courses from each of the following distributive designations. The program office has a current list of courses satisfying each distributive requirement.
   - Two courses with SOC, TMV, or TAS.
   - Two courses with ART or LIT.

   One course focused on Africa and one course on African America (including the Caribbean) must be among the eight elective courses. AAAS 10, AAAS 11, AAAS 12, AAAS 13, AAAS 14, AAAS 15, AAAS 18, or AAAS 19 may be used to fulfill this requirement, but more advanced courses are strongly recommended.


Majors are encouraged to take at least one diaspora course, which may be used to satisfy either area requirement. Courses with the INT distributive designation may satisfy either of the disciplinary requirements. With approval of the Chair, one associated course may be counted toward the major.

Requirements for the Modified Major

African and African American Studies may be undertaken as the secondary part of a modified major. A modified major should be planned to form a coherent program of study with the major. The requirements are four courses in African and African American Studies in addition to those listed for a modified major in the particular department or program. Early approval of a modified major should be obtained from the student’s major department or program and from the African and African American Studies Program.

Requirements for the Minor

Students desiring a minor in African and African American Studies must complete six courses. Minors are encouraged to take Senior Seminars and Senior Independent Research courses as part of their four electives. In order to officially file the minor, students must meet with the Chair or a program faculty member to discuss minor requirements and to arrange for online approval.

The Minor consists of six courses:

1. Two Introductory course chosen from:
   - AAAS 9: Introduction to AAAS Diaspora Studies,
   - AAAS 10: Introduction to African American Studies.

2. Four additional elective AAAS courses.

Off-Campus Study

Accra, Ghana

AAAS offers a biennial Foreign Study Program (FSP) in Accra, Ghana, in the fall term. Classes are taught on the campus of the University of Ghana, Legon, with faculty
and lecturers drawn from the University and elsewhere in Ghana, and a Dartmouth faculty member affiliated with AAAS. In this program, classroom learning is integrated with research conducted in the community and local archives as well as visits to important historical and cultural sites in Accra and throughout Ghana. Students will have the opportunity to participate in volunteer and other community engagement activities during the term. There are no prerequisites for this FSP, but preference for admission will be given to students who have completed at least one African Studies course.

**Paris, France**

AAAS offers a biennial FSP in Paris, France in the summer term, entitled *Afro/Black Paris: The African Diaspora in the City of Light*. This FSP is focused on the historical, cultural, and social significance of African descended people, French and otherwise, in this unique site in the African Diaspora. Developed in 2007 and subsequently taught in Paris by Professor Trica Keaton, then expanded and co-organized in 2016 at Dartmouth with Professors Ayo Coly, Michael Chaney, and John Tansey, Executive Director of the Frank J. Guarini Institute for International Education, the *Afro/Black Paris* FSP is both interdisciplinary and immersive. Classes are taught in English by local and AAAS faculty, and the FSP incorporates an array of fascinating fieldtrips and workshops in music, dance, and the culinary arts that enrich traditional coursework. There are no prerequisites for this FSP, although it is recommended that students take AAAS’ introductory courses before applying for admission. The inaugural *Afro/Black Paris FSP* at Dartmouth is summer 2018.

**Honors Program**

Qualified majors may apply for admission to the Honors Program during the second or third terms of their junior year. Completion of the Honors Program is prerequisite to graduation with Honors or High Honors in the major subject. In order to qualify for an Honors Program at Dartmouth College, the student must have at the time of application a cumulative grade point average of 3.0 in all subjects and a 3.3 grade point average in the major. During two terms of the senior year the honors student will pursue the project under the guidance of a selected staff member by enrolling in AAAS 98/AAAS 99 (p. 100). The student is expected to produce a substantial thesis as the culmination of the project. A grade of A or A- over the two terms earns High Honors; and a Grade of B+ in the first term is satisfactory to continue for Honors. 1. 2.

**AAAS - African and African American Studies Courses**

*To view African and African American Studies Requirements, click here* (p. 77).

**AAAS 7 - First Year Seminar**

**AAAS 9 - Introduction to AAAS Diaspora Studies**

*Introduction to AAAS Diaspora Studies* is a pluridisciplinary comparative and trans-historical team-taught course (with three professors) composed of three three-week units, respectively Africa, the Caribbean, and the United States. In addition to literary and social sciences texts, the course will consider music, the visual arts, science, diaspora theory, and research strategies. Topics include the coloniality of modernity; religio-racial self-fashioning; Diaspora identity and identification; African diaspora gender and sexuality; cuisine; pathogenicity, disease and chemical catastrophes.

Distributive: Dist:INT; WCult:CI

**AAAS 10 - Introduction to African-American Studies**

A multidisciplinary investigation into the lives and cultures of people of African descent in the Americas. Topics may include: the African background, religion and the black church, popular culture, slavery and resistance, morality and literacy, the civil rights movement, black nationalism, theories of race and race relations.

Distributive: Dist: SOC; WCult:CI

**AAAS 11 - Introduction to African Studies**

This course introduces a global socio-historical framework within which to examine Africa in relation to multiple African Diasporas and notions of mobility. Considering the historical contexts of contact between Africa, Europe, and the Americas, we examine cultural, economic, and philosphic aspects of Africa. We will examine how ideas of what it means to be African culturally, racially, and politically are continually produced and contested. The moment of independence of many African nation-states from European colonial rule in the mid 20th century operates as a centering point from which we will examine economics, race, politics, and artistic expressions. We will consider ideas of “tradition” and “modernity,” representations of Africa, more recent processes of commodification, as well as various cultural and political responses to them.

Distributive: Dist: SOC; WCult:CI

**AAAS 12 - Race and Slavery in U.S. History**

This course deals with the African heritage, origins of white racial attitudes toward blacks, the slave system in colonial and ante-bellum America, and free Black society in North America. Specific emphasis will be placed on the Afro-American experience and on the relationship between blacks and whites in early American society. Open to all classes.

Cross-Listed as: HIST 16

Distributive: Dist: SOC; WCult:W
AAAS 13 - Black America since the Civil War
This course is a continuation of HIST 16. Among the topics to be discussed are Black Reconstruction, segregation and disfranchisement, migration, nationalism, Blacks and the New Deal, the impact of war on Blacks, and the 1960s. Open to all classes.
Cross-Listed as: HIST 17
Distributive: Dist:SOC; WCult:W

AAAS 14 - Pre-Colonial African History
Instructor: Sackeyfio-Lenoch
This course will examine the social and economic history of Africa to 1800. Several interrelated themes of social organization, the expansion of trade, rise of new social classes, the emergence and disintegration of various states and European intervention will be discussed. Through our readings, we will visit every major historical region of Africa (north, east, central, west and south) at least once during the semester to illuminate the various themes.
Cross-Listed as: HIST 5.01
Distributive: Dist:SOC; WCult:NW

AAAS 15 - History of Africa since 1800
Instructor: Sackeyfio-Lenoch
This course explores some of the major historical processes unfolding in Africa since 1800. Our analysis will focus on social and economic history as we examine Africa's integration into the international economy during the nineteenth century, the rise of new social classes, and the creation of the colonial and post-colonial state. Our primary case studies will be drawn from east, west and southern Africa to highlight both the similarities and differences of their historical development. Open to all classes.
Cross-Listed as: HIST 66
Distributive: Dist:SOC; WCult:NW

AAAS 16 - History, Culture and Society: The Many Faces of Latin America
Instructor: varies
The Spanish discovery and conquest of this continent created Latin America and the Caribbean out of the diverse and complex realities of the pre-Columbian world. Since colonial times Latin American and Caribbean cultures have developed against a background of cultural repression, racial conflict, political domination, colonial exploitation, and gender inequality. And yet, in the midst of all this turmoil, Latin America and the Caribbean have produced an extraordinary variety and wealth of artistic creations, ranging from literature to the visual arts, from music to film. In this course we will turn to some of the works by Latin American and Caribbean artists and writers in an attempt to illuminate and explore some of the wonders of the cultural dynamics that shape the many faces of what we call Latin America and the Caribbean.
Cross-Listed as: LACS 4
Distributive: Dist:LIT; WCult:NW

AAAS 18.03 - Introduction to African Religions
Instructor: Baum
This course introduces the study of Indigenous African Religions, their cosmologies, histories, ritual structures, and their relationships to other aspects of African cultures. Of particular importance will be ideas of gendered spiritual power, the spread of African-inspired religions to the Americas, and the nature of orally transmitted religious traditions. Conversion to Islam and Christianity and reconversion from these religions will also be studied. Finally, we examine the role of African religions in post-colonial African societies and the impact of globalization. Open to all.
Cross-Listed as: REL 014
Distributive: Dist:TMV; WCult:NW

AAAS 19 - Africa and the World
This course focuses on links between Africa and other parts of the world, in particular Europe and Asia. Readings, lectures, and discussions will address travel and migration, economics and trade, identity formation, empire, and cultural production. Rather than viewing Africa as separate from global processes, the course will address historical phenomena across oceans, deserts, cultures, and languages to demonstrate both the diversity of experiences and the long-term global connections among disparate parts of the world.
Cross-Listed as: HIST 5.08
Distributive: Dist:INT or SOC; WCult:NW

AAAS 20 - Feminist Theory
This seminar is designed to provide an overview of significant themes and debates within feminist theory. It is organized around several topic areas - most centrally Intersectionality and the Body (including the racially marked body, the covered body and the body in motion, across both national and gender boundaries).
Cross-Listed as: GOVT 86.35 WGSS 67.05
Distributive: Dist:SOC

AAAS 20.01 - Dartmouth Black Lives
This course equips students with research methods, critical frameworks, and interview skills to document the lives of Black alumni and contribute to an archive of oral sources on Black history at Dartmouth. Students will be immersed in the theory and practice of oral history, a field in which
historians conduct collaborative interviews with narrators to create new records of past events.

Cross-Listed as: HIST 10.04
Distributive: Dist:SOC; WCult:CI

**AAAS 20.50 - Lest We Forget: History, Collective Memory and Slavery at Dartmouth**
Instructor: King

Beyond noting that Wheelock owned slaves, little is known of Dartmouth's other historical connections, if any, to the institution of slavery. This research seminar investigates the college's economic entanglement in the trade and slaveholding; as a site for the intellectual legitimation and contestation of slavery; and the contributions of enslaved persons to its development. We will also review the origins, findings and responses to similar collective memory projects at other institutions including Brown, Emory and Yale.

Cross-Listed as: SOCY 79.08
Distributive: Dist:SOC

**AAAS 21 - Racial Justice**

This course introduces students to major contemporary racial justice debates. It also considers how theories of racial justice might better include the concerns of women of color as well as LGBT and trans persons of color. Throughout the course we will examine questions such as: What constitutes racial injustice? How is gender implicated in said injustice? What, if anything, do blacks and other people of color owe to one another? Should political possibility and pragmatism bound thinking regarding corrective racial justice?

Cross-Listed as: GOVT 27 WGST 40.03
Distributive: Dist:SOC


This course will examine the classical works of three towering modern intellectuals: W.E.B. Du Bois, James Baldwin, and Lorraine Hansberry. We will wrestle with the rich formulations, subtle arguments, and courageous visions of three Black thinkers who continue to speak with power and passion to our turbulent times.

Cross-Listed as: ENGL 53.43 PHIL 01.17
Distributive: Dist:LIT; WCult:W

**AAAS 21.50 - The Color Line, Lynching and the Black Public Sphere: Social & Political Thought of Ida Wells & DuBois**

This course will explore the black public sphere through close readings of the writings of W.E.B. Du Bois and Ida B. Wells as well as secondary source material on these thinkers as well as the black public sphere itself.

Cross-Listed as: GOVT 86.36
Distributive: Dist:TMV

**AAAS 21.75 - Black Political Thought**

This course will explore the black political thought from the antebellum period through the middle of the twentieth century. The course will include the political writings of major black political thinkers such as Frederick Douglass, Harriet Jacobs, Booker T. Washington, W. E. B. Du Bois, Ida B Wells, Martin Luther King, Jr. and Ella Baker as well as secondary source material on these thinkers.

Cross-Listed as: GOVT 60.19
Distributive: Dist:TMV

**AAAS 22 - Religion and the Civil Rights Movement**
Instructor: Booker

This course presents the religious dimensions of civil rights activism in twentieth-century United States history. Students will explore the theologies of African American Protestants, liberal religious thinkers, and adherents to Gandhian philosophy as they waged nonviolent struggle against Jim Crow oppression in the United States. In-class discussions and exercises will examine the religious rhetoric and creative protest strategies of movement activists. Open to all.

Cross-Listed as: REL 061
Distributive: Dist:SOC; WCult:CI

**AAAS 22.10 - African American Religion and Culture in Jim Crow America**
Instructor: Booker

Jim Crow segregation in the United States compelled many African American men and women to use their bodies—their hands, feet, and voices—to create sacred scenes, sounds, and spaces to articulate their existence in America. This seminar focuses on religious production to explore African American culture in the post-Civil War era. Students will analyze a variety of sources, including music, visual art, film, religious architecture, sermons, food, theater, photography, and news media. Not open to students who have received credit for AAAS 80.08.

Cross-Listed as: AAAS 80.08 REL 054
Distributive: Dist:TMV; WCult:CI

**AAAS 22.50 - Islam in America**

Muslim Ban? Malcolm X? Enslaved Muslims? Hijab? This course is about Muslims in America, past, present, and future, and how American Islam is an extension of global Islam and the ways it is uniquely American. As we study religious identity and understandings of Islam in enslaved
Muslim narratives, the civil rights movement, waves of immigration, pre- and post- 9/11, and the current Muslim ban, we pay close attention to theorizations of contested histories, race, gender, and class dynamics, intersectionality, model minorityhood, assimilation, discrimination, and Malcolm X’s visit to Dartmouth College, the history and the significance of the Malcolm X murals in the Shabazz building.

Not open to students who have received credit for REL 26
Cross-Listed as: REL 026 REL 16.03
Distributive: Dist:TMV; WCult:W

AAAS 23 - The Black Sporting Experience
This course examines the historical and contemporary sporting experiences primarily of Black Americans. The decision to refer to this class as a “Black” experience is deliberate, as we will briefly interrogate how race and sports functions for the Black diaspora in the Caribbean, Latin America, and Europe. Despite brief examinations of the diaspora, this class uses sports history as a critical lens to understand American history.

Cross-Listed as: HIST 30
Distributive: Dist:SOC; WCult:CI

AAAS 24 - The Black Radical Tradition in America
This course introduces major currents in the history of black radical thought, with a particular focus on the U.S. after emancipation. This class encourages students to define and evaluate radicalism in the shifting contexts of various liberation struggles. By exploring dissenting visions of social organization and alternative definitions of citizenship and freedom as expressed through nonviolence, armed rebellion, black nationalism, Pan Africanism, socialism, communism, anticolonialism, feminism, queer theory and integrationism, students will confront the meaning of the intersection of race, gender, class and sexuality in social movements.

Cross-Listed as: HIST 037
Distributive: Dist:SOC; WCult:W

AAAS 24.50 - Contemporary Black Political Thought and the Modern World
In the era and “return” of mass political social movements, the question is perhaps not what is the most urgent political struggle of today; rather, what remains unheard, unseen, and unthought in the struggle for political freedom? This course seeks to familiarize students with the works of contemporary black political thinkers who have contributed to the rich theoretical developments and productive tensions in Black Studies, discourses on black resistance and freedom struggle, and political action itself. The course focuses on several key concepts—such as civic and social death, sovereignty, the collective unconscious, the radical imagination—as a way to examine notions of agency and the psychic life of racial violence, particularly in the context of the United States. What is the dream-work of Black freedom? And how do dreams of (black) freedom become realized and/or barred from larger socio-political, economic, and legal structures to the more abstract registers of language, aesthetics, culture, and the imagination? The course investigates the theoretical tenets within contemporary Black Studies as critical theory, arguing that these are equally contributive to the continental philosophical tradition on questions of life, rights, civil society, and personhood.

Distributive: Dist:SOC; WCult:W

AAAS 25 - Constructing Black Womanhood
Instructor: King
This course is a critical examination of the historical and contemporary status of black women in the United States, as presented in fiction, primary accounts, and social science literature. We will explore the nature, extent, and consequences of the multiple discriminations of race, sex, and class, as the context in which these women shaped their social roles and identities within the black community and the larger society. We will consider the themes of family, motherhood, and sexuality; educational, economic and political participation; aesthetics and religious traditions; self and social images.

Cross-Listed as: SOCY 46 and WGSS 33.01
Distributive: Dist:SOC; WCult:CI

AAAS 26 - Toni Morrison
Instructor: Moodie
This course is an in-depth study of Toni Morrison’s major fictional works. We will also read critical responses by and about the author. We will examine Morrison’s earliest and arguably most foundational and influential works. Required texts will include, The Bluest Eye, Sula, Song of Solomon, Tar Baby, Beloved, A Mercy, and Conversations with Toni Morrison. Central to our exploration will be an analysis of Morrison’s observation that “the past affects the present.” Therefore, we will explore the social and historical factors that contribute to Morrison’s artistic constructions. Some of the issues we will examine include, alternative constructions of female community and genealogy, and representations of race, class, nationhood, and identity.

Cross-Listed as: ENGL 63.02
Distributive: Dist:INT or LIT; WCult:CI

AAAS 27 - Transformative Spiritual Journeys. Contemporary Memoirs of African American Religion
Instructor: Booker
This course presents African Americans who have created religious and spiritual lives amid the variety of possibilities for religious belonging in the second half of the twentieth century and the early twenty-first century. By engaging an emerging canon of autobiographies, we will take seriously the writings of theologians, religious laity, spiritual gurus, hip hop philosophers, LGBT clergy, religious minorities, and scholars of religion as foundational for considering contemporary religious authority through popular and/or institutional forms of African American religious leadership. Themes of spiritual formation and religious belonging as a process—healing, self-making, writing, growing up, renouncing, dreaming, and liberating—characterize the religious journeys of the African American writers, thinkers, and leaders whose works we will examine. Each weekly session will also incorporate relevant audiovisual religious media, including online exhibits, documentary films, recorded sermons, tv series, performance art, and music.

**Distributive:** Dist:TMV; WCult:CI

**AAAS 28.10 - Race, Space, and Nature**

Ideas of racial difference are frequently advanced as “natural” truths about the world, linked to normative conceptions of environmental relations. Reciprocally, racism—as a set of deadly ideological and material practices articulated around purported group differences—has profoundly shaped conceptions of non-human nature. This course asks how race is inflected in the politics and practices through which humans interact with the “natural” world, and explores the implications for contemporary movements and mobilizations for environmental justice.

Cross-Listed as: GEOG 40.03

**Distributive:** Dist:SOC

**AAAS 31 - Black Theater, U.S.A.**

Instructor: Varies

This course will examine African American playwrights, drama, and theater from 1959 to the present. Further exploration will focus on the impact of civil rights, the Black Arts movement, and cultural aesthetics on the form, style, and content of African American plays. Readings will include plays of Hansberry, Baldwin, Baraka, Kennedy, Childress, Shange, Wolfe, Wilson, Parks and others. Open to all classes.

Cross-Listed as: THEA 22

**Distributive:** Dist:ART; WCult:CI

**AAAS 31.50 - Black Theatre Workshop: The August Wilson Experience**

Instructor: Ndounou

Using legendary playwright, August Wilson’s ten-play cycle of African Americans’ experiences throughout American history as our inspiration, this course provides hands-on, experiential learning of acting, script analysis, and theatrical production. With no previous performance, design, or production experience required, students will read Wilson’s plays and related commentary with opportunities to perform selected scenes from the Wilson cycle while exploring possibilities for design and technical elements. In this process-oriented course, students also learn basic acting techniques by strengthening observation and listening skills, risk-taking, imagination, improvisation, concentration, exploration of self, voice, and body. Activities include textual analysis of Wilson’s plays and related works as well as documenting and revising performance philosophy and process. While providing a safe space for exploring the roles we play in our daily lives and taking on the roles of others in given or imagined circumstances, students will learn widely accepted theories, practices, and terminology of the actor’s craft in order to facilitate the practice, writing, and discussion of acting and producing Wilson’s plays and others.

Cross-Listed as: THEA 10.56

**Distributive:** Dist:ART; WCult:CI

**AAAS 31.90 - Black Theatre & Storytelling Workshop in XR: Reimagining The Purple Flower (1928)**

Instructor: Ndounou

Recognizing the intrinsic value of Black lives and Black storytelling across media platforms, this course will explore the staging of Black theatre texts in virtual reality (VR) and related XR technology. Participants will explore VR technology at the intersection of Black cultural storytelling through the performance of monologues and scenes as well as design/tech, music and movement culminating into a pilot production of Marita Bonner’s *The Purple Flower* (1928), a non-realistic, one-act play that pushes the boundaries of theatrical staging. No prior experience or pre-requisites required.
people. Emphasis will be on tracing the emergence of bisexual, transgender, gay and queer Black written works and films/videos by and about lesbians, feminist theory and black queer theory to examine the
This seminar will combine elements of black (trans)AAAS 32.02 - Black Queer Literature and Film
This course is an introduction to the history of race and gender in American film. These fundamental social constructs in American life have been central to the development of American film narrative from the beginnings of cinema at the turn of the twentieth century. In turn, American films have profoundly shaped the ways that we think about race and gender and racialized and gendered beings. We will analyze the shifting and situational meanings of race and gender throughout the twentieth century, and in particular, how they have been influenced by the forces of history, including wars, economic depressions, and social movements. While we will focus our attention on Hollywood cinema of the "golden age", the period from the 1920s-1960, we will also spend significant time considering American independent cinema and the post-classical period of filmmaking from the 1960s to the present. In our consideration of race and racialized peoples, we will include African Americans, Native Americans, Asian Americans and Latinos. Our discussions of gender will be expansive to include not just women and femininity, but men and masculinity as well.
Cross-Listed as: FILM 47.24 LATS 25
Distributive: Dist:ART; WCult:W

AAAS 32.01 - Race and Gender in American Film
This course is an introduction to the history of race and gender in American film. We will discuss issues of race and gender, racism, sexuality and homophobia as well as misogyny and sexism in Black representation. Students will be expected to watch and discuss films as well as read scholarly articles on race theory, queer theory, feminist theory and cultural criticism.
Cross-Listed as: FILM 42.16
Distributive: Dist:ART; WCult:W

AAAS 32.05 - Cinema of Black Protest
This course considers Black histories of protest in conjunction with the history of Black representation in film. We will analyze historical documents, scholarly articles, legal cases and historical accounts of the major moments in Black resistance in the United States. We will begin with the protests against lynching in the early twentieth century and the Civil Rights and Black power era of the 1970's Blaxploitation film genre through contemporary independent films. We will discuss issues of race and gender, racism, sexuality and homophobia as well as misogyny and sexism in Black representation. Students will be expected to watch and discuss films as well as read scholarly articles on race theory, queer theory, feminist theory and cultural criticism.
Cross-Listed as: FILM 49.02 THEA 10.51
Distributive: Dist:ART; WCult:CI

AAAS 32.06 - Black LGBTQ History
This course is an introduction to the study of Black LGBTQ history in the United States. We will examine a range of primary and secondary source material from the nineteenth century through the late twentieth century. This material includes documentaries, scholarship, newspaper articles, newsletters, diaries and letters. We will look at sexual relationships in the nineteenth century among slaves and free people as well as the cultures of sexual diversity and gender transgression a couple of generations after slavery that gave rise to the jazz age and the Harlem Renaissance. We will also take a look at post-war America, the Civil Rights and Black Power era for their moments of sexual expression and gender variance as well as repression. The course will continue to examine Black
experience into the AIDS crisis, gay marriage debates and transgender rights movements.

Cross-Listed as: WGSS 65.08
Distributive: Dist:SOC; WCult:W

**AAAS 33.10 - Rituals of Breath: Black Performance and Resistance**

This interdisciplinary course explores the historical legacy of public rituals of extreme violence against African American peoples as both sites of anti-black state and non-state sanctioned disciplinary projects as well as timespaces of radical resistance. From the slave trade to life and labor under conditions of slavery to post-reconstruction segregation to lynching to police violence, American history can be read through the changing nature of the public torture of Black peoples. At the center of these forms of violence are the control of breath as life force and sign of freedom. This course examines the murder of Eric Garner in 2014 in a police-executed choke hold as a key event that both harkens back to a long history of Lynchings and shootings and also to a history of how Black communities have organized around and resisted the free expansion of white perpetrators. In these events, Black bodies conflate with representations of Emmett Till’s mutilated body at his funeral in an open casket to video of Rodney King’s beating to the continuing stream of video and images of extra-judicial killings of black citizens. Generations of artists in film, theater, painting/sculpture, dance, and across media have challenged and confronted these aesthetics of violence. This course explores theories of ritual and performance to understand how artists and communities come together as collectives to contextualize and represent impossible terrors. Artists and political organizers use aesthetics and collective action to transform the horror of being subject to violence at any moment into rituals of potential social transformation. This course then teaches students theories of ritual and performance as ways that communities have historically engaged and confronted histories of anti-Black violence in order to conceive of new future possibilities in the face of disciplinary actions meant to contain and choke black people(s). In some manner, the course links African American experiences of violence and resistance to those of other African peoples around the world. This course is team taught and also draws upon the expertise of various faculty at Dartmouth. This course aims to link theories of Black life and performance to active practices of performance-making, interrogating the intersections between art and scholarship.

Distributive: Dist:ART; WCult:CI

**AAAS 34 - Early Black American Literature**

Instructor: Chaney


Cross-Listed as: ENGL 30
Distributive: Dist:LIT; WCult:W

**AAAS 35 - Modern Black American Literature**

Instructor: Varies

A study of African American literature from the Harlem Renaissance to the present, this course will focus on emerging and diverging traditions of writing by African Americans. We shall also investigate the changing forms and contexts of ‘racial representation’ in the United States. Works may include those by Hurston, Hughes, Wright, Ellison, Morrison, Schuyler, West, Murray, Gates, Parks.

Cross-Listed as: ENGL 33
Distributive: Dist:LIT; WCult:W

**AAAS 35.50 - Introduction to African American Environmental Thought: The Black Outdoors**

Instructor: Bennett

The persistence of black life, and blackness as a way of thinking about the organization of both human and nonhuman forms of life, has been absolutely central to the story of the United States and the Americas more broadly. This course provides an interdisciplinary exploration of the writing of thinkers from across the African diaspora, with special emphasis on literary works and criticism centrally concerned with the intersections of black literary studies and African American environmental thought. We will draw on a range of texts in order to wrestle with some of the key concerns of African American writers from the 19th century through the present. Students will be introduced to a range of methods and approaches to the meta-disciplinary work of black literary studies. By the end of the course, students will be expected to possess a working knowledge of several major themes, figures and moments within the black expressive tradition.

Cross-Listed as: ENGL 53.29
Distributive: Dist:LIT; WCult:W
AAAS 35.60 - Poetry for the People
Instructor: Bennett
The central concern of this class is the historical relationship between the social lives of everyday people and U.S. American poetics, with a special emphasis on what June Jordan once termed the “difficult miracle of Black poetry in America.” How does poetry help us to know one another? And how might we better understand the particular role of poetry, of poesis, for those historically barred from the very practice of reading or writing, from ownership (even of one’s own body), and various generally recognized forms of belonging? For the purposes of this course, these will be some of our animating questions.
As a group, we will study the works of Audre Lorde, Toni Morrison, Tongo Eisen-Martin, Jericho Brown, and Claudia Rankine, among others. Largely toward the end of elaborating, in concert, a working theory of social poetics, a poetics of sociality, a new way for us to be together in a cultural moment marked by distance, as well as the disintegration of the public commons. In the midst of this ongoing catastrophe, this state of emergency and emergence, this course will seek to chart a way forward using the instruments left to us by luminaries both dead and living, a cloud of witnesses beckoning us toward a future with room enough for all of us to flourish.
Cross-Listed as: ENGL 53.48
Distributive: Dist:LIT; WCult:CI

AAAS 36.50 - Rasta and Rastafari
Instructor: Campbell
This course examines the Rastafari spiritual and political movement from its genesis in Jamaica to its transformation into a global phenomenon. Today’s perception of Rastafari is informed by popular images of marijuana smoking, reggae musicians and a laid-back lifestyle. Consequently, Rasta is often mistaken for practicing a countercultural phenomenon of no global significance, a poster child for the undesirable other, or merely a misguided rebel. Rastafari however, is significantly more profound. Rastafari has offered, cloaked in revolutionary black hermeneutics, some of the sharpest critiques against European imperialism and exploitation. Despite the presence of burgeoning scholarship, Rasta’s global significance remains hidden in the fissures of most historical discourses and behind the haze of marijuana smoke created by popular understandings of the movement. This course employs monographs, scholarly articles, documentary films and primary sources and music to and explore Rastafarian ideologies that among other things, promoted decolonization while decrying racism and imperialism. It is open to students seeking to broaden their knowledge of religions and socio-political movements in the African diaspora.

AAAS 39 - Jazz: Black Creative Music and American Culture
The music known as ‘jazz’ has been one of the most revolutionary and influential artistic movements of the past century. Jazz: Black Creative Music and American Culture will provide a basic historical overview of the music, with major themes including the relationship between composition and improvisation; the reinvention of traditional roles of performer, composer, bandleader, and collective ensemble; and the music’s connection to African-American history and the civil rights movement. Not open to students who have received credit for MUS 05.01, MUS 05.02, AAAS 39.01, or AAAS 39.02.
Cross-Listed as: MUS 005
Distributive: Dist:ART

AAAS 39.01 - History of Jazz to 1965
This course examines jazz from its origins to 1965, with special attention given to pivotal figures such as Louis Armstrong, Charlie Parker, Miles Davis and John Coltrane. Class work includes listening to, analyzing, and discussing jazz recordings and watching jazz films. Students will also attend live jazz performances and read about the artists who brought this music to life, with the goal being to increase understanding, appreciation and enjoyment of this great American art form.
Cross-Listed as: MUS 5.01
Distributive: Dist:ART; WCult:W

AAAS 39.02 - History of Jazz since 1959
Instructor: Glasgo
This class examines developments in jazz, starting with historic 1959 recordings by Ornette, Coltrane and Miles Davis, followed by soul jazz, modal jazz, jazz funk, the avant-garde, big bands, Afro-Latin jazz and world jazz. Class work includes close listening, discussions, collaborations and in-class presentations. Students also complete required reading, listening and writing assignments and attend jazz performances, resulting in a deeper understanding and appreciation for jazz and improvisation, both worldwide and in our daily lives.
Cross-Listed as: MUS 5.02
Distributive: Dist:ART; WCult:W

AAAS 39.03 - Advanced Studies in Jazz History: A Century of Jazz at Dartmouth
Advanced Studies in Jazz History offers students the opportunity for in-depth research into specific topics pertaining to Black Creative Music. This term we will be turning our gaze inward, exploring Dartmouth’s own history with jazz and other forms of Black music over the
past century. Through a combination of primary source research, interviews and oral history, and creative storytelling and writing, the goal of this course is to generate lasting, honest, insightful, and engaging documentation of the complicated history of jazz at Dartmouth.

Cross-Listed as: MUS 45.12
Distributive: Dist:ART

AAAS 39.05 - Utility of Death and Dying in African American Music

This course explores the topics of death and dying and their multiple uses across the span of African American music from the time of enslavement to the present day. Through an engagement with sound recordings, scholarly writings, journalism, lyrical analysis, film, and other sources, we will expand our understanding of how and why death is so frequently invoked in African American music. Although some reasons for these invocations - for instance, loss or mourning - may seem obvious, this course will require us to reframe our perceptions of death as simply the ending point of life. As we will learn, death and dying can serve a number of purposes, from ‘deadness’ serving as a necessary aesthetic for creation, to death being an integral part of an artist’s identity.

Distributive: Dist:ART; WCult:W

AAAS 39.06 - Hip-Hop in the United States

Instructor: Martin

This course is an introduction to hip-hop music and culture, intended to offer interdisciplinary perspectives on what is one of the most popular genres in the United States. From its humble origins in New York to now, hip-hop and rap music have changed the sonic landscape of the US and the world. We will examine rap music and hip-hop culture as artistic and sociological phenomena with emphasis on historical, cultural, economic and political contexts. Discussions will include the coexistence of various hip-hop styles, their appropriation by the music industry, and controversies resulting from the exploitation of hip-hop music and culture as a commodity for national and global consumption.

Cross-Listed as: MUS 18.02
Distributive: Dist:ART; WCult:CI

AAAS 40 - Gender Identities and Politics in Africa

Instructor: Coly

This interdisciplinary course explores the constructions of gender identities in different African socio-cultural contexts. The emphasis is on contemporary Africa, although we will discuss some of the historical framework of these identities. We will read historical accounts of gender in some pre-colonial African societies, investigate the impact of colonialism, and examine gender in some anti-colonial movements. We will also analyze gender in urban and rural contexts, and address such questions as homosexuality and gay rights.

Cross-Listed as: WGSS 34.02
Distributive: Dist:INT; WCult:CI

AAAS 42 - Women, Religion and Social Change in Africa

Instructor: Baum

This introductory, multidisciplinary course examines women's religious ideas, beliefs, concerns, actions, rituals and socio-cultural experiences in African societies and cultures from a comparative, historical and gender perspective. We will look at women's experiences of social change in African religions, the encounter with Islam, slavery, Christianity, and colonialism. We will analyze the articulations of economic and political power or lack of power in religious ideas as we ask questions such as: What are the different antecedents and circumstances in which women exercise or are denied agency, leadership, power and happiness in their communities? Texts will include nonfiction, fiction, and film narratives. Open to all students.

Cross-Listed as: REL 66 and WGSS 44.03
Distributive: Dist:SOC; WCult:NW

AAAS 44 - Contemporary Africa: Exploring Myths, Engaging Realities

This course focuses on processes, relationships, and experiences that have shaped, and continue to shape, the lives of Africans in many different contexts. These include issues of ecology and food production, age, gender, ethnicity, exchange, colonialism, apartheid, and development. We will then embark on in depth readings of ethnographies that engage these issues and themes. In the processes we will move beyond prevailing stereotypes about Africa, to engage the full complexity of its contemporary realities.

Cross-Listed as: ANTH 036
Distributive: Dist:INT or SOC; WCult:CI

AAAS 46 - History of Modern South Africa

Instructor: Sackeyfio-Lenoch

After an initial overview of colonialism in Africa, this course will concentrate on Southern Africa, with special emphasis on the historical development, effects, and implications of the racial situation in the Republic of South Africa. Readings will be drawn from primary and secondary materials and from works of fiction. Illustrative films will be shown, and some opportunity offered to compare the history of race relations in South Africa with
that in other African countries and in the United States. Open to all classes.

Cross-Listed as: HIST 67
Distributive: Dist:SOC; WCult:NW

**AAAS 50 - Colonialism, Development, and the Environment in Africa and Asia**

Instructor: Haynes

This course examines the environmental history of Africa and Asia, focusing on the period of European colonialism and its aftermath. Topics include deforestation and desertification under colonial rule; imperialism and conservation; the consequences of environmental change for rural Africans and Asians; irrigation, big dams and transformations in water landscapes; the development of national parks and their impact on wildlife and humans; the environmentalism of the poor; urbanization and pollution; and global climate change in Africa and Asia. Open to all classes.

Cross-Listed as: ENVS 045; HIST 075; ASCL 54.07
Distributive: Dist:INT or SOC; WCult:NW

**AAAS 51 - African Literatures: Masterpieces of Literatures from Africa**

Instructor: Coly

This course is designed to provide students with a specific and global view of the diversity of literatures from the African continent. We will read texts written in English or translated from French, Portuguese, Arabic and African languages. Through novels, short stories, poetry, and drama, we will explore such topics as the colonial encounter, the conflict between tradition and modernity, the negotiation of African identities, post-independence disillusion, gender issues, apartheid and post-apartheid. In discussing this variety of literatures from a comparative context, we will assess the similarities and the differences apparent in the cultures and historical contexts from which they emerge. Readings include Chinua Achebe's Things Fall Apart, Naguib Mahfouz's Midaq Alley, Calixthe Beyala's The Sun Hath Looked Upon Me, Camara Laye's The African Child, and Luandino Vieira's Luanda.

Cross-Listed as: COLT 51.01, ENGL 53.16
Distributive: Dist:INT or LIT; WCult:NW

**AAAS 53 - Islam in Africa**

Instructor: Baum

This course aims to introduce students to the formation of Islam in the Maghrib, Saharan Africa, and Africa south of the desert. Assignments will address continuities with and differences from the practices of Muslims in other parts of the world while emphasizing the central role the religion has played in the unfolding of history in various parts of Africa. Topics covered will include conversion, popular religion and mysticism, cultural formations, and social organization. Open to all classes.

Cross-Listed as: HIST 69 REL 74.17
Distributive: Dist:SOC; WCult:CI

**AAAS 54 - Postcolonial African Drama**

This course explores selected theatre and performance traditions of sub-Saharan Africa. How do African playwrights negotiate and transform the colonial legacy of Western drama, and how do they use theater to challenge neocolonial regimes and to advance ideas of democracy, human rights, and gender equality? Plays from Nigeria, South Africa, Kenya, and Uganda receive special emphasis. No prior knowledge of African studies or theater is necessary, just a willingness to expand critical and creative horizons.

Cross-Listed as: THEA 23
Distributive: Dist:ART; WCult:NW

**AAAS 55.01 - African Cinema**

This course focuses on the cinemas of Francophone Africa. We will examine early Western filmic representations of Africans as savages devoid of culture and history. We will then examine how African filmmakers have challenged those images by creating new depictions of their societies, offering Africa through African eyes. We will explore the social, historical, and political contexts of these films and explore their aesthetic and narrative characteristics. We will discuss issues and theories related to the definition of the so-called third world cinema, postcolonial cinema, and postmodern cinema.

Cross-Listed as: FILM 42.09
Distributive: Dist:ART; WCult:NW

**AAAS 56 - The African Political Novel**

Instructor: Coly

This course examines the relationship between politics and the novel in Africa. I have selected novels from different parts of Africa. We will approach the selected novels as instruments of political interest and products of political contexts. We will then proceed to put these novels in a triangular conversation with political theorists of Africa and the political philosophies of African leaders. Topics include democracy and governance, clientelism and patrimonialism, failed states, gender, and grassroots activism.

Cross-Listed as: COLT 51.03
Distributive: Dist:LIT; WCult:NW
AAAS 60 - Slavery and Emancipation in Latin America and the Caribbean

For over 300 years, Africans were transported to Latin America and the Caribbean to work as enslaved laborers. This course will examine the history of African slavery in the region from the beginning of the Atlantic slave trade to the abolition of slavery in Brazil in 1888. For each class session, students will review primary source documents such as autobiographies, slave codes, plantation journals, visual images, and anti-slavery tracts as well as historical scholarship.

Cross-Listed as: LACS 58; HIST 92.03
Distributive: Dist:INT or SOC; WCult:NW

AAAS 60.01 - Plantations and Slavery in the Americas

Instructor: Musselwhite

The plantation evolved in the Americas as a place for European exploitation of colonial environments and enslaved laborers. It played a foundational role in shaping settler colonialism, racial slavery, and capitalism across the Americas and it has also framed debates around the legacies of slavery and colonial appropriation up to the present. This course explores the evolution of the plantation as an institution and an ideology of racialized exploitation, but also traces enslaved peoples’ resistance to the plantation and their construction of rival geographies and institutions.

Cross-Listed as: HIST 16.02
Distributive: Dist:SOC; WCult:W

AAAS 60.50 - Racial Geographies: Race and the Politics of Place

This course will explore various themes surrounding the ways in which race shapes the way we understand ideas of place. With a focus on Africa and its diaspora, the course looks at the movement of people and ideas inherent in the concept of diaspora and reflects on how people also reshape social worlds that challenge the way we commonly understand the world to be divided (i.e. by political territories like “countries” or by physical geographies like “continents”). The goal of the course is to start with the concept of “Blackness” and unpack the complexity of various other racial and spatial categories like “Sub-Saharan Africa” “Arab North Africa” “the West” and “diaspora.” The three general themes of territory, flows, and space/futurisms, will be explored in relation to the way they are experienced by people in everyday life, therefore the readings will primarily be ethnographic, following African descendant communities in Africa, Europe and the Americas. However, we will tackle these issues through history and fiction writings as well. Not open to students who have received credit for GEOG 063.

Cross-Listed as: ANTH 50.28 GEOG 071

Distributive: Dist:SOC; WCult:CI

AAAS 61 - Caribbean History: 1898 to the present

This course surveys the major issues that have shaped Caribbean society from the late 19th-century to the present, including: imperialism, urbanization, migration and globalization, struggles for national independence, the transition from plantation to tourism-based economies, and the global spread of Caribbean popular culture. Our readings and discussions will focus on the historical trajectories of Cuba, Haiti, Jamaica, Puerto Rico, Trinidad, and the Dominican Republic using historical scholarship, music, literature, film, and personal narratives.

Cross-Listed as: HIST 92.01; LACS 59
Distributive: Dist:INT or SOC; WCult:NW

AAAS 61.05 - Black Agrarian Democracy: Haitian History from Revolution to the Fall of the Duvalier Dictatorship

Instructor: Chochotte

The course explores the historical struggle between democracy and authoritarianism in Haiti throughout its two hundred seventeen years of independence as a free black nation, which also makes the island one of the oldest sovereign countries in the Western Hemisphere. To understand the island’s history, students are expected to read what historians and writers have written about Haiti; and to read the primary letters of frantic French planters, rebellious African slaves, egalitarian peasants, entrepreneurial market women, conscientious revolutionaries, exuberant military generals, loquacious politicians, feared dictators, and dreaded militias through time. The course will, indeed, move through four important, though overlapping, historical moments. First, we begin with an examination of the 1791-1804 Haitian Revolution when enslaved Africans revolted against the French colonial planters to successfully abolish slavery and to achieve national independence. Second, we read through the formation of grassroots and institutional democratic traditions in the nineteenth century and how they were undone during the 1915-1934 US Occupation of Haiti, where US President Woodrow Wilson ordered the American military to invade Haiti and control the island for almost two decades. Third, we will explore how the undoing of democracy led to the rise of the Francois and Jean-Claude Duvalier dictatorship (1957-1971) and its dreaded militia called the tonton makout militia (often spelled in the following French orthography: tonton macoutes). Finally, we will conclude the class by looking at how and why the Haitian peasantry overthrew the dictatorship to replace it with the democratically elected President Jean-Bertrand Aristide (1991).

Cross-Listed as: HIST 92.07
Distributive: Dist:SOC; WCult:NW
AAAS 62 - Nationalism and Revolution in the Caribbean
The islands of the Caribbean have served as the site for two of the most significant revolutionary upheavals of the modern era—the Haitian Revolution and the Cuban Revolution and have produced anti-colonial luminaries such as José Martí, Frantz Fanon, Marcus Garvey, and Claudia Jones. This course will explore the origin, trajectory, and outcome of nationalist struggles in the Caribbean from the eighteenth-century to the present through primary and secondary materials, memoirs, fiction, and film.
Cross-Listed as: HIST 92.02; LACS 54
Distributive: Dist:INT or SOC; WCult:NW

AAAS 62.75 - Race, Gender, & Revolution in the Atlantic World
Instructor: Voekel
This course examines how the events and intellectual production of the Haitian Revolution and decolonization struggles in the Spanish Empire shook the Atlantic World and forced a reconsideration of political categories such as liberty, tyranny, citizenship, rights, and the relationship of race and gender to all of these concepts. The Enlightenment influenced Latin American and Caribbean revolutionaries, but these rebel intellectuals in turn challenged some of the Enlightenment’s fundamental tenets, ushering in new polities with radical notions of citizenship and belonging.
Cross-Listed as: HIST 41.02
Distributive: Dist:SOC; WCult:NW

AAAS 63 - Race Matters - Race Made to Matter
Instructor: Keaton
What is race? What are the effects of race in our everyday life? How has science shaped our understanding of race and human diversity? This course explores how and why race is a social construction with profound implications in our social world not only in the U.S. but also beyond its shores. Diverse sciences have established that human beings are well over 99% genetically identical, but race remains a potent vision through division that has been made and made to matter across multiple spheres of life. This ranges from ancestry testing to our identities to how we are categorized to where we live and whom we are taught to love and hate in society. How race intersects with socio-economic disparities related to inclusion and exclusion are among the topics examined in this course.
Cross-Listed as: SOCY 071
Distributive: Dist:SOC; WCult:CI

AAAS 64 - Afro/Black Europe
The goal of this course is to examine the contemporary experiences of people racialized as black in Europe—including those who do not self-identify as such—and analyze aspects of race and racialized relations that are unique to Europe. Through guest lectures, reading, and film, students will gain a critical awareness of race/racialization and its impact in a variety of European countries, and attain exposure to an evolving, international field of inquiry: Afro/Black European Studies.
Distributive: Dist:INT or SOC; WCult:CI

AAAS 65 - Introduction to Postcolonial Literature
Instructor: Khan
An introduction to the themes and foundational texts of postcolonial literature in English. We will read and discuss novels by writers from former British colonies in Africa, South Asia, the Caribbean, and the postcolonial diaspora, with attention to the particularities of their diverse cultures and colonial histories. Our study of the literary texts will incorporate critical and theoretical essays, oral presentations, and brief background lectures. Authors may include Chinua Achebe, Ngugi wa Thiong’o, V.S. Naipaul, Merle Hodge, Anita Desai, Bessie Head, Nadine Gordimer, Paule Marshall, Tsitsi Dangarembga, Salman Rushdie, Earl Lovelace, Arundhati Roy.
Distributive: Dist:INT or LIT; WCult:NW

AAAS 65.01 - Revolutionary Imagination: Religion, Modernity, and the Otherwise
In this course, students work together to reckon with our dystopic present—and to build a dynamic toolkit for imagining and realizing more livable futures. To do so, we capacitate a vibrant understanding of religion (in theory and method) and examine the potentialities that this approach to religion opens in emergent movements for social change. Through interdisciplinary coursework and ethnographic research, this course trains students to study and practice everyday life towards futures otherwise. Open to all.
Cross-Listed as: REL 74.16
Distributive: Dist:TMV

AAAS 65.06 - Jews and Race
The question of Jewish difference has been foundational in the formation of both Christendom and Islam. Of course, the question of race, and the racialization of the Jews, is often thought to be modern phenomenon when Race Science became prominent in the nineteenth century. But lately scholars have begun to re-think the category of race in connection with modernity and to reconsider race as a construct that extends back at least into the Middle Ages.
This course will look at the long historical trajectory of Jews and race, beginning in the Middle Ages and focusing primarily on European modernity, America, including the complex alliance of Jews and Blacks from slavery to BLM, the role of race in the Israeli/Palestinian conflict and the rise of Islamophobia. The goal of this course is to better understand the nature of Jews as a genos/race/ethos/people as they are labeled by others as well as how they self-identify. Jews identified as a “race,” and were identified as such by others, until the 1930s, after which ethnos served as a substitute. The question of “whiteness” loomed large for Jews in America; are Jews white, and if so, what are the implications of their “whiteness”? Finally, we will explore more recent iterations of this vexing issue in contemporary politics that includes “Jews of Color,” Zionism, Israel/Palestine, conversion to Judaism, and progressive politics in America.

Cross-Listed as: JWST 013
Distributive: Dist:INT or TMV; WCult:W

AAAS 65.65 - Silence, Exile, and Cunning: Comparing Jewish and African Diasporic Literatures
Instructor: Caplan

The diasporic subject is by definition a dislocated subject. This dislocation manifests itself not only with respect to space, but also in relationship to history, language, political power, and above all in the psychological relationship that diasporic subjects maintain with themselves. This course will focus on two primary examples of diaspora in the late nineteenth and twentieth centuries, Jews and Africans, to examine the multiplicity of relationships among language, literary structure, as well as gender and sexuality that inform the construction of diasporic literatures. Although this course cannot be comprehensive in its survey of either Jewish or African literatures, it will offer suggestive juxtapositions of the two to emphasize commonalities between their historical and political experience. It will also explore how the once exceptional condition of diaspora increasingly has become representative for more and more people in the world today.

Cross-Listed as: COLT 51.05 JWST 15.01 MES 16.39
Distributive: Dist:LIT; WCult:NW

AAAS 66 - B/black Migration: Diversity, Identity, and Solidarity Polities in the U.S. and Beyond
Instructor: Keaton

This course will explore tensions and misunderstandings between people referred to as “B/black im/migrants” and “B/black natives.” Questions for interrogation include: Who is “African American,” “B/black,” and/or “native?” Who decides? What accounts for hostilities among groups racialized and politicized as “B/Black?” What issues do newcomers confront when immigrating to a highly racialized society? Focusing on the United States, students will also travel through time and space exploring this topic’s relationship to global anti-blacksness and anti-racism.

Distributive: Dist:INT or SOC; WCult:CI

AAAS 67.06 - African Diaspora Women Writers
Instructor: Brown

This course will be organized around four themes prevalent in contemporary portrayals of Black women across the African diaspora. The themes, Body, Voice, Memory, and Movement provide a center from which discussions of agency, representation and counter-narrative can be situated within a larger discourse of canon formation. We will explore various parts of the United States and the Caribbean through analyses of literature and visual culture, paying particular attention to shifting dialogues of culture and identity. Among the central questions posed will be: What constitutes a feminist ideology in black women’s literature? How are images of subjection and victimization re-appropriated by Black women writers and image-makers and utilized for their own empowerment? What are the penalties inherent when a Black woman “comes to voice” in the arena of self-representation?

Cross-Listed as: ENGL 53.47 WGSS 66.07
Distributive: Dist:LIT; WCult:CI

AAAS 67.09 - Self, Subject, Photography
Instructor: Brown

Before the oft-reproduced social-media mechanism of the selfie, there existed (and still does) the artistic self-portrait. Utilized in the creative realm to create a representation of the artist as both subject and object, self-portraits can be whimsical, grim, tantalizing, performative, or combative. Specifically, our task will be to examine the registers of possibility present when women use their bodies and stories to claim authorial space. Our goal during the term will be to think through all of the mechanisms of the self that are deployed in the context of artistic practice. Students will produce their own photographic self-portraits and write an analytical paper on a contemporary writer or visual artist.

Cross-Listed as: ENGL 63.29 WGSS 66.08
Distributive: Dist:ART; WCult:CI

AAAS 67.50 - Black Consciousness and Black Feminisms
Instructor: Neely

This seminar seeks to decenter mainstream (what bell hooks calls “imperialist, white supremacist, capitalist, [heteronormative], patriarchal”) thinking to understand the
world differently. Reading primary and scholarly texts from the US, Caribbean, and Africa about the Black Consciousness Movement and black feminisms, we will trace the evolution of thinking about race, gender, sexuality and their interrelationships through time and across space. Assignments include weekly reading response papers and an independent research project.

Cross-Listed as: GEOG 21.01
Distributive: Dist:SOC; WCult:CI

**AAAS 67.80 - Black Queer & Trans Futures: An Experiment**

Engaging with the histories and present realities of colonial dispossession, racial violence and cisgender/patriarchy on campus and beyond, we will examine and craft visions of alternative futures grounded in prison abolition. Drawing on archival research, critical theory and speculative fiction from Black queer and trans thinkers such as Miss Major, Edouard Glissant, Marie Vieux-Chauvet, Octavia Butler, and Samuel Delany, our goal will be to challenge our current carceral order, chart how we move past it, and imagine what liberatory prison abolitionist futures lie beyond.

Cross-Listed as: AAAS 32.02 FRIT 37.05 WGSS 52.06
Distributive: Dist:SOC; WCult:CI

**AAAS 68 - Afro/Black Paris**

Instructor: Keaton

This course takes students on a journey, not to a place but rather *through* a lived experience in France, one referred to as “Afro/Black Paris.” In exploring the lives, times, and representations of African descended people in French cinema and various readings, students will gain an understanding of broader social issues pertaining to identity, exclusion and inclusion, race, racialization, racism, and anti-racism alongside ideologies and myths of Paris and France as colorblind and race-free.

Distributive: Dist:INT or SOC; WCult:CI

**AAAS 68.08 - Afro/Black Paris in Film and Life**

Instructor: Keaton

This course takes students on a journey, not to an actual place per se in France, but rather through a lived experience, known as “Afro/Black Paris.” Paris, an historical site of freedom from racial enslavement, has long been a contested home and homeland for Africans and their descendants, that is, diverse people racialized as black whose presence in Paris results from colonization, exile, expatriation, and im/migration, including African Americans. The City of Light is arguably one of the most beautiful and exciting destinations in the world. However, all that glitters is not gold. Matters of race and anti-blackness co-exist with a variety of myths, narratives, and representations of Paris and France as color-blind and race-free. Through French film, students will explore these and related issues and thereby gain a broader understanding of pressing social questions, involving anti-racism, belonging, inequality, racism, and their intersections. This course follows a lecture-discussion format.

Cross-Listed as: FILM 42.21
Distributive: Dist:INT or SOC; WCult:CI

**AAAS 68.10 - Race, Gender and Class in "Postcolonial" France: Memories, Space, Time, and Intersectionality**

Instructor: Keaton

French national narrative, as shown in media and taught in the schools, marginalizes the ways in which the slave trade, slavery and the colonial empire have shaped the social, political, economic and cultural making of France. This narrative is one that continues to ignore the African presence, now on French soil for centuries, as does it consider its Black and Muslim citizens as second-class. Moreover, to French society, racism became an opinion rather than an ideology and the colonial past a forgotten chapter with the collapse of the French colonial empire in 1962 at the end of the war in Algeria. Yet, reports and studies from governmental and non-governmental antiracism associations document and denounce the existence of racial discrimination and racism in everyday life, which echo past representations and practices. Indeed, social and cultural movements continue to question silences on the colonial past and how it facilitates anti-Black racism. In this course, we will explore how the coloniality of republican power – the ways in which processes of racialization continue to operate and to create spaces of greater vulnerability – are rooted in a historical context of slavery that continues to operate after 1962 as well as the counter-narratives and cartographies that have emerged in response.

Distributive: Dist:SOC; WCult:CI

**AAAS 68.20 - Decolonizing the Museum: An Introduction to Art from Africa and the African Diaspora in French Museums**

Instructor: Keaton

This course is designed to introduce students to African art from prehistory to the present day in French national museums. Masterpieces will be studied as products of complex cultural interactions and expressions of socio-economic history. Through these oeuvres, the course explores the cultural context and ascribed meanings attributed to these works and how they reflect the embedded legacy of French colonialism both in terms of the actual artworks and curatorial practices in France. In so doing, this course considers the effects of colonialism and postcolonialism on cultural production pertaining to African art and the African diaspora.
AAAS 69 - The Politics of Beauty and the Black Female Body
Instructor: Keaton
Feminine attractiveness is racialized in societies across the globe. This course examines the politics of beauty and its ramifications in the lives of black women and those identified as such in the U.S. and beyond. Drawing from scholarly and popular reading and visual material, and framed by feminist thought, the course will explore the historical and contemporary relevance of this diasporic issue. Students will interrogate beauty politics at the level of theory and lived experience.

AAAS 80.05 - 10 Weeks, 10 Professors: #BlackLivesMatter
Instructor: varies
This collaboratively taught course seeks to answer the call of activists around the country to examine racialization, state violence, and inequality in the context of the #BlackLivesMatter movement. To begin, it offers a context for the events in Ferguson, Missouri in 2014. Then, it situates those events in a broader history of race and racism in the United States. Finally, the course highlights black feminist and queer approaches to questions of trauma, community, politics, and survival.

AAAS 80.06 - Civil Rights in the United States in the 20th Century
Instructor: Rabig
This course examines movements for civil rights, broadly defined, in the 20th-century US. Students explore concepts of American citizenship, considering struggles for political inclusion and efforts to participate fully in the nation's social and cultural life. We focus on women's and gay rights and the struggles of African Americans, Latinos, Native Americans and Asians, examining how these and other groups have envisioned and pursued full American citizenship.

AAAS 80.07 - Race, Media, Celebrity
How is fame understood through racial difference? This course explores the dynamic terrain of contemporary celebrity culture as it intersects with race. Looking across a range of media formats (music, television, and digital media) we will examine the construction of black celebrity from Barack Obama to Beyoncé. We will engage with the aesthetics and politics of black celebrity visibility, paying close attention to issues of gender, sexuality, and class. Topics considered include celebrity performance, scandal, and fandom in U.S. public and popular culture.

AAAS 80.10 - The Historical Philosophy of W.E.B. DuBois
This course will examine the historical philosophy of the towering Black scholar and great freedom fighter of the 20th century. We shall engage in close readings of DuBois' classic work, The Souls of Black Folk (1903) as well as subsequent essays in his magisterial corpus, especially his classic autobiography, Dusk of Dawn (1940).

AAAS 81.01 - The Black Arts Movement
This course explores the literature, art, and criticism of the Black Arts Movement. The artistic corollary to the Black Power movement, the Black Arts Movement flourished in the 1960s and 1970s as artists/activists sought to put a revolutionary cultural politics into practice around the country. The Black Arts Movement had far-reaching implications for the way artists and writers think about race, history, authorship, and the relationship between artistic production and political liberation. We'll explore these issues in work by Amiri Baraka, Sonia Sanchez, Larry Neal, and others who forged the traditionally-defined Black Arts Movement in Harlem. We'll also trace the movement's flowering around country, where local political struggles and artistic traditions in Chicago, Newark, Los Angeles, and Detroit shaped distinctive regional variations of the Black Arts Movement. We'll consider how the literature of the Black Arts Movement intersected with other cultural currents of the time, its critics, and the persistence of its themes in contemporary culture.

AAAS 81.05 - Telling Stories for Social Change
Our social structure is full of unseen, unspoken, and unheard dynamics that create visible and invisible social walls. Students in this course have the unique opportunity to collaborate with a group of people from behind those social walls from two different perspectives: theoretical and practical. Students study the causes of this invisibility and social isolation (mainly pertaining to incarceration and addiction) by participating in an interdisciplinary arts program with local community members from these invisible populations while at the same time attending discussion-based seminars. This combination of practice and theory asks for students to go beyond a critical reflection on our society by contributing to constructive social actions towards change.
Cross-Listed as: WGSS 66.05  
Distributive: Dist:ART; WCult:CI  
**AAAS 81.07 - Black Noir**  
In this course, we will study black American literature that focuses the noir genre on black people themselves. We will read gritty, urban crime novels that attempt to expose inequities in black American lives and dispel the notion that a descent from whiteness results in blackness. Rather, the black people in these texts exist in darkness because they are living in alienated communities. We shall investigate how the noir genre is altered when “noirs” are the subjects and the authors. In addition to primary texts, the course will engage critical responses to these works.  
Cross-Listed as: COCO 03.01 ENGL 52.03  
Distributive: Dist:ART  
**AAAS 81.10 - James Baldwin: From the Civil Rights Movement to Black Lives Matter**  
The 2016 film *I Am Not Your Negro* encourages a new generation to explore the life and work of James Baldwin (1924–1987). Directed by Haitian-born filmmaker Raoul Peck, *I Am Not Your Negro* is a provocative documentary that envisions a book Baldwin never finished by providing insight into Baldwin’s relationship with three men who were assassinated before their fortieth birthdays—Medgar Evers, Malcolm X, and Martin Luther King, Jr.  
In this course we will interrogate questions of race, sexuality, violence, and migration. Our current political moment encourages the examination of these issues while Baldwin’s life and work provides the ideal vantage point for their investigation. Using *I Am Not Your Negro* as our starting point, Baldwin’s life and work will allow us the opportunity to explore transatlantic discourses on nationality, sexuality, race, gender, and religion. We will also explore the work of other writers including Richard Wright, Frantz Fanon, Audre Lorde, and Ta-Nehisi Coates.  
Cross-Listed as: ENGL 63.09  
Distributive: Dist:LIT; WCult:CI  
**AAAS 82.05 - Dave the Potter: Slavery Between Pots and Poems**  
Instructor: Chaney  
This course examines the work of David Drake, a South Carolinian slave who made some of the largest ceramic storage vessels in America during the 1850s, signing them and etching sayings and poems onto them as well. This seminar engages with Drake’s poetry-pottery through critical and historical research, interpretive writing, and our own creative adventures in ceramic handicrafts. In addition to writing your own updated imitations of Dave Drake’s poetry and attempting ceramic facsimiles of his earthenware, students will also spend time in the letterpress studio as a means of acquiring a deeper historical and aesthetic appreciation of Dave’s life and work; it was while working as a typesetter for a regional newspaper that Dave acquired literacy. As a culminating assignment, students will contribute chapters to a scholarly book on Drake, which the instructor will edit.  
Cross-Listed as: ENGL 53.07 FILM 47.25  
Distributive: Dist:LIT; WCult:W  
**AAAS 83.05 - African Religions of the Americas**  
This class introduces the history and practices of African-derived religious traditions as they have developed in the Caribbean, Latin America, and Black American communities in the United States. These religious systems will be discussed with reference to their mainstream representation (as "voodoo") and analyzed according to the more complex realities of their practitioners’ everyday lives. Three themes to be explored in each tradition include 1) gender identity; 2) racial identity and resistance; and 3) aesthetics. Open to all classes.  
Cross-Listed as: REL 17  
Distributive: Dist:INT or TMV; WCult:CI  
**AAAS 83.06 - Caribbean Lyric and Literature**  
Instructor: Moodie  
This course will look at several issues that reappear throughout the work of a variety of Caribbean writers from former British colonies. These concerns include (but are not limited to) notions of exile, the importance of language and music, the articulation of identity in varying post-colonial states, and representations of gender, race and ethnicity. The class will also analyze the socio-political events in particular nations and the ways in which these events influence writing in the archipelago. We will also examine the ways in which a strong tradition of music as protest influences the production of particular poetic forms in Trinidad and Jamaica. The class will move from early twentieth century writers like Claude McKay to the
important contributions of later writers such as Kamau Brathwaite, Jamaica Kincaid, George Lamming, V.S. Naipaul, Sam Selvon, Olive Senior and Derek Walcott. We will examine the more recent innovations in form, as musical elements are introduced by writers such as Mikey Smith and Kwame Dawes. Each week’s readings will be supplemented with seminal critical writings including excerpts from the text The Empire Writes Back.

Distributive: Dist:SOC; WCult:NW

AAAS 83.07 - Cuba in the Black Atlantic: Slavery and Its Legacies

Among the first territories colonized by the Spanish Empire, Cuba was a main hub of the Atlantic slave trade from the sixteenth through the nineteenth century. Over one million African slaves were trafficked to this Caribbean island. With Cuba as our main port of entry, this course introduces students to the history of African diasporic societies and politics in Latin America and the Caribbean from the late colonial period to the twentieth century. Often treated as figures with no political vision or power, black people were long relegated to the margins of our understandings of history.

Cross-Listed as: LACS 50.15

Distributive: Dist:SOC; WCult:NW

AAAS 83.08 - The Global Caribbean

Instructor: Kivland

Paradise or plantation? Cultural destination or economic periphery? Capitalist birthplace or IMF delinquent? From the Columbian conquest to contemporary tourism, the Caribbean has borne the burdens and opportunities of being an intercontinental crossroads. Colonial governments, enslaved Africans, indentured servants, and foreign settlers have all made the Caribbean an exemplar of modernity and globalization—for better or worse. Drawing on social scientific, literary, and policy texts, this course offers an historically deep and geographically broad anthropology of the Caribbean.

Cross-Listed as: ANTH 033 LACS 038

Distributive: Dist:SOC; WCult:NW

AAAS 85.01 - South African Literature in English

This course will examine works by South African men and women of various ethnicities who have chosen to write in English since the publication of Olive Schreiner’s Story of an African Farm in 1883. This richly diverse literature will be tracked through the cultural and political history of South Africa with primary emphasis on the twentieth and twenty-first centuries before and after the fall of Apartheid. Confrontation between black militancy and white oppression characterizes much writing and social interaction in South Africa before the fall of Apartheid, but complex forms of multi-ethnic coexistence and interchange have also been evident since the first white settlement of the country in 1652. Recent work by J.M. Coetzee and Zakes Mda among others explores the difficult, unmapped terrain of post-Apartheid South Africa. Works by the following writers may be included in the course: Olive Schreiner, Solomon Plaatje, Bessie Head, Nadine Gordimer, Zoe Wicomb, Alan Paton, J.M. Coetzee, Njabulo Ndebele, Athol Fugard, Nelson Mandela.

Distributive: Dist:SOC; WCult:NW

AAAS 85.07 - 20th Century African Art

This course will examine works by South African men and women of various ethnicities who have chosen to write in English since the publication of Olive Schreiner's Story of an African Farm in 1883. This richly diverse literature will be tracked through the cultural and political history of South Africa with primary emphasis on the twentieth and twenty-first centuries before and after the fall of Apartheid. Confrontation between black militancy and white oppression characterizes much writing and social interaction in South Africa before the fall of Apartheid, but complex forms of multi-ethnic coexistence and interchange have also been evident since the first white settlement of the country in 1652. Recent work by J.M. Coetzee and Zakes Mda among others explores the difficult, unmapped terrain of post-Apartheid South Africa. Works by the following writers may be included in the course: Olive Schreiner, Solomon Plaatje, Bessie Head, Nadine Gordimer, Zoe Wicomb, Alan Paton, J.M. Coetzee, Njabulo Ndebele, Athol Fugard, Nelson Mandela.

Distributive: Dist:SOC; WCult:NW

AAAS 85.08 - The Global Caribbean

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Paradise or plantation? Cultural destination or economic periphery? Capitalist birthplace or IMF delinquent? From the Columbian conquest to contemporary tourism, the Caribbean has borne the burdens and opportunities of being an intercontinental crossroads. Colonial governments, enslaved Africans, indentured servants, and foreign settlers have all made the Caribbean an exemplar of modernity and globalization—for better or worse. Drawing on social scientific, literary, and policy texts, this course offers an historically deep and geographically broad anthropology of the Caribbean.

Cross-Listed as: ANTH 033 LACS 038

Distributive: Dist:SOC; WCult:NW

AAAS 86.04 - Social, Political, and Cultural Trends in Contemporary Brazil

Instructor: Minchillo

This class will be taught in English and will explore social, political, and economic issues in contemporary Brazil. Since 2013, the climate in Brazilian society has become more and more tense due to a series of street protests and polarized public debates on race, class, political representation, democracy, religion, gender, sexuality, environmental protection and economic justice. The present scenario in Brazil will be discussed in relation to historical and cultural contexts. Materials for the course will include films, documentaries, music, and a wide variety of readings (mainstream media, blogs, academic essays, official documents, fiction). Invited guests (scholars, activists, journalists, artists) will deliver lectures, in presental or remote way.

Cross-Listed as: LACS 30.11 PORT 35.01

Distributive: Dist:SOC; WCult:NW

AAAS 87.05 - Politics of Africa

Instructor: Horowitz

This course examines post-colonial politics in sub-Saharan Africa, with particular focus on the events of the last decade. The course will be structured around three main themes: (1) patterns of economic growth and decline; (2) the transition to democratic political systems; and (3) political violence and civil conflict. While the course covers broad trends across the continent, it will also draw on case studies from particular countries.

Cross-Listed as: GOVT 42

Distributive: Dist:INT or SOC; WCult:NW

AAAS 87.06 - 20th Century African Art

This course is designed to introduce undergraduate students to African art in the twentieth century. It charts the development and dimensions of artistic expressions and cultural production in Africa from the colonial period to the contemporary. By looking at various case studies comparatively, the course explores the intersection of developments in artistic practice and identity, and cultural production, and sweeping changes in the political, social and economic spheres in Africa. It considers the effects of
colonialism, postcolonial conditions, neocolonialism, economic liberalism, and globalization on cultural production and artistic practice. Following a chronological format, it will attempt to cover the different sub-regions of the continent but draws substantial amount of examples from sub-Saharan Africa.

**AAAS 87.07 - Globalization and the African Continent**

This course on globalization seeks to ultimately provide students with a conceptually grounded understanding of the four aspects of globalization: the economic, the political, the social and the cultural. Four objectives guide this course. The first is to introduce students to the main topics and debates related to the issue of globalization. A second goal is to provide students with an array of conceptual and empirical tools that are useful in framing discussions of globalization. Third, we will explore the multifaceted ways in which globalization manifests itself and its complex impacts on individuals and societies. Finally, we will discuss the multiple ways in which individuals and collectives are challenging and shaping globalization in the contemporary world. In all of this, our emphasis will be on the developing world in general and Africa in particular.

Distributive: Dist:INT or SOC; WCult:CI

**AAAS 87.08 - Indigenous Slavery in Ghana and Africa**

Using the Atlantic slave trade as a backdrop the course provides an introduction to slavery in Ghana and Africa and the Atlantic slave trade out of West Africa. Instead of presenting a comprehensive survey, covering every aspect of this vast subject, this course takes a topical approach by focusing on a selection of themes and issues that are crucial to developing an understanding of slavery in Ghana and Africa and the slave trade across the Atlantic. Themes to be covered include African and European agency in slavery and slave trade; slavery and slave trade in framing the social structure of Ghana; the legacies of slavery in Ghana and Africa and the ways in which slavery is remembered in Ghana. Throughout the course, we will pay attention to the debilitating effects of slavery and the slave trade on Africa and on its development.

Distributive: Dist:SOC; WCult:NW

**AAAS 87.09 - African Popular Culture**

Instructor: Shipley

This course introduces a global socio-historical framework within which to examine African popular cultures across the continent and as they circulate globally. Considering the historical contexts of contact between Africa, Europe, and---- the Americas, we will explore cultural, economic, and philosophic aspects of African expressive cultures. Focusing on Ghana, Nigeria, and South Africa, we will study music, film, dance, social media, theater, and literature, and consider how ideas of what it means to be African are produced and contested through these media. No prerequisites required.

Cross-Listed as: ANTH 12.14
Distributive: Dist:SOC; WCult:NW

**AAAS 87.11 - Language in Africa**

Instructor: McPherson

Africa: home to around 2000 of the world’s 7000 languages, yet ask an average person on the street to name five African languages and they may be hard-pressed to do so. This course explores the languages of Africa from a historical, linguistic, and cultural standpoint, including the migration and diffusion of different language groups across the continent, similarities and differences in linguistic structure between African languages, the amazing complexity of the Khoisan languages (best known for their use of clicks), the effects of colonialism on language, writing systems, and many other topics.

Cross-Listed as: LING 11.10
Distributive: Dist:SOC; WCult:NW

**AAAS 88.07 - Afro-Diasporic Dialogues: Latin America and the U.S.**

This course investigates how people of African ancestry have forged cultural and political ties across national boundaries in the Americas. Drawing on primary sources, film, and literature, we will examine the transnational dialogue among US African Americans, Afro-Latinos, and Afro-Caribbeans from the 19th century to the present. We will also consider why efforts to mobilize Afro-descendants across the Americas have often been undermined by mutual misunderstandings, conflicting agendas, and differing conceptions of "race" and "nation."

Cross-Listed as: LACS 50.01
Distributive: Dist:INT or SOC; WCult:CI
AAAS 88.08 - Ethnography of Violence
Instructor: Kivland
Violence is widely recognized as a problem in modern society, with policies and interventions to combat violence, or employ it, dominating local and global politics. Yet the meaning of violence is seldom analyzed. Using an ethnographic lens, this course explores violence as both an embodied experience and a culturally and politically mediated event. We examine spectacular and everyday violence forms of violence in terms of manifestations of power, structures of inequality, perceptions of difference, and politics of representation. Ethnographic studies are drawn from, among others, Mozambique, Haiti, and Harlem. An introduction to the cultural anthropology of violence, this course raises key questions about violence in a globalized world and explores how to study it anthropologically. This course is not open to students who have received credit for ANTH 12.03.
Cross-Listed as: ANTH 28; WGSS 42.05
Distributive: Dist:INT or SOC; WCult:NW

AAAS 88.11 - Atlantic Slavery/Atlantic Freedom
When does slavery find itself chiasmatically mirrored in freedom? From the recent Hollywood blockbuster 12 Years a Slave (2013) to the streets of Ferguson and Baltimore, the legacies of slavery and racial violence continue to cast their shadow over horizons of emancipationist history even as America commemorates the sesquicentennial of the U.S. Civil War. In this course we will revisit the literatures of slavery and antislavery in the Atlantic world from the eighteenth century to the present. Our novels and stories imagine episodes of slavery, slave rebellion, and fugitive flights to freedom across two centuries: from early transatlantic crossings of slaves and servants to the New World; to Tacky’s Revolt and its place in what Vincent Brown has recently called the “Coromantee Archipelago” in eighteenth century slave rebellion; to the spectacular soundings of the Haiti Revolution in the Age of Revolutions; to the messianic prophecies of Nat Turner in the early nineteenth century; to slave rebellions at sea; and finally to fugitive slave fictions in the abolitionist decade leading up to the Civil War.
Cross-Listed as: ENGL 62.22
Distributive: Dist:LIT; WCult:NW

AAAS 88.12 - From Diaspora Practices to Theory
What is an epic and how do its imaginary, cultural, and rhetorical impulses of displacement, unknown cartographies, madness, new identities, conceptual crossroads and translation lead to an eventual theorization of diaspora? The course has three inter-related goals: to study six examples of epic in the Black Diaspora moving from West Africa to the Anglo-Franco-Hispano-phone Caribbean; 2. to relate these texts to diaspora pathogen and food-ways, spiritual practices and converging African and New World histories; and 3. to consider diaspora and chaos theory.
Cross-Listed as: ENGL 53.35
Distributive: Dist:LIT; WCult:CI

AAAS 88.13 - Women Writing Memoir
Instructor: Moodie
This course examines the autobiographical writing of a variety of women from across the globe. Paying attention to the socio-political contexts within which these women write, we will discuss the ways in which these authors negotiate different worlds while being marginalized along vectors such as race, class, and gender. For this reason, the class is inherently interdisciplinary. Most of the works we will examine have achieved significant critical acclaim, and we will also examine the artistic innovations in these narratives. Texts will include works such as Staceyann Chinn’s The Other Side of Paradise, Jackie Kay’s Red Dust Road, Jeanette Winterson’s Why Be Happy When You Could Be Normal?, Malala Yousafzai’s I Am Malala, Janet Mock’s Redefining Realness and Marjane Satrapi's Persepolis.
Cross-Listed as: ENGL 53.30
Distributive: Dist:INT or LIT; WCult:NW

AAAS 88.14 - Cities, Subjects & Sonic Africa
This course poses the questions: What has been the role of musical expression in shaping the experiences of Africans throughout the world? How does sound function as a site of socio-political contestation that reflects and shapes ideas about race, identity, place and belonging? To answer these questions, we situate specific ethnographic case studies within an interdisciplinary framework. Texts, performances, media, and experiential workshops all form an integral part of this course.
Cross-Listed as: MUS 45.08
Distributive: Dist:ART; WCult:NW

AAAS 88.15 - Black Women's Activism, 1970-present
In this course we will explore several genres of writing, grounded in an intellectual engagement with the creative, scholarly, and activist writing of Black women of all genders from 1970 to the present. How does Black women’s activism constitute a political intellectual tradition that impacts how we do research and pose questions? How does black women’s activism refigure the categories and categorization of knowledge and knowledge production? What does it mean to write oneself into existence if and when knowledge is premised on their epistemic and actual disappearance? This course approaches Black women’s intellectual and cultural
production as one entry point into the project of creating from nothing, writing to become, writing as an act of survival, and writing to envision and practice new worlds. These are all vital skills in a rapidly transforming social, economic, political and climatic landscapes.

Cross-Listed as: GEOG 062 WGSS 40.04
Distributive: Dist:SOC; WCult:CI

AAAS 88.16 - Sovereignty, Race, and Rights
Instructor: Shipley
This course examines the colonial legacies of rights, race, gender, and difference and their significance for contemporary global politics and development. By taking an socio-historical approach to the idea of rights we will make connections between sovereignty, the rule of law, representational practices, economy, and citizenship. We will use a critical eye to explore the conditions of possibility that allow states, development organizations, donor agencies, and individuals to unwittingly reproduce centuries-old tropes of poverty, degradation, and helplessness of non-Western peoples. Examining various institutionally structured encounters between Europeans and non-Western peoples we unpack assumptions about the naturalness of power. In postcolonial societies the tensions between ideas of tradition and modernity structure many conflicts over rights, citizenship, and the role of the individual in society.

Cross-Listed as: ANTH 50.22
Distributive: Dist:INT or SOC; WCult:NW

AAAS 88.17 - Filmmaking and Visual Culture
Instructor: Shipley
In this course we both learn to make films and to examine theories of visual art, sound, film, and digital media. We will learn how to think about and make sounds and images in historically and ethnographically rich ways. In the process we examine notions of power, difference, history, culture, race, class, gender. Twentieth-century politics were intimately linked to the rapid development of radio, television, film, video, and digital media. These media have creatively engaged with local cultural practices around the world in reshaping the nature of artistic expression, national, gendered, and racial difference, and political power. We examine notions of visuality from the perspective of African and African diasporic political configurations and aesthetic responses. This course explores the politics and pragmatics of art, photography, and film in order to delineate visual, sonic, and embodied ways of presenting and experiencing the world particularly in relation to race and gender.

Cross-Listed as: ANTH 50.21
Distributive: Dist:SOC; WCult:NW

AAAS 88.18 - Black Feminisms in the French Atlantic
French colonialism and particularly French transatlantic slavery between the 17th and 19th centuries produced a shared linguistic and cultural legacy as well as a sustained political struggle carried by Black populations in France, sub-Saharan Africa, the Caribbean, and Québec. Although combating racial inequality and white supremacy is generally understood through the lens of movements in the US, or the example of South African apartheid, this course invites students to consider such undertakings from a fundamentally transnational point of view by focusing on Black Feminisms in the French-speaking African diaspora. Open to all students. Text, lectures and discussion in English.

Cross-Listed as: FRIT 37.03
Distributive: Dist:INT; WCult:CI

AAAS 88.19 - Contemporary African American Visual Artists
Instructor: Chaney
This course provides an overview of contemporary African American visual artists and their cultural impact. Attention will be given to significant artists and movements (Kara Walker, Kyle Baker, Kehinde Wiley, Afro-Futurism, etc.) and to the new conceptualizations in art history brought about by them. Students will gain critical skills of visual literacy as they analyze drawings, paintings, and other visual media, while also learning to ground such observations within aesthetic, cultural, historical, and larger theoretical contexts. Student work will consist of presentations, short papers, and a gallery project, in which students present their own independent research in a collaborative student show. Open to all.

Distributive: Dist:ART; WCult:W

AAAS 88.20 - Music and the Racial Imagination
This course investigates how the construction, imagination, and lived experience of race has influenced musical production, reception, and analysis. We begin by addressing the history of the concept of race, then turn to a series of musical case studies that variously articulate music’s relationship to the construction and negotiation of racial categories. Topics are primarily drawn from the U.S. and include: Asian American hip hop; the “race record” industry; country music and “whiteness,” amongst others.

Cross-Listed as: MUS 45.09
Distributive: Dist:ART; WCult:W

AAAS 89 - Independent Study in African and African American Studies
Available to students who wish to independently explore aspects of African and African American Studies which are not included in courses currently offered at Dartmouth.
AAAS 90.07 - From Africans to African Americans: Perspectives on the Creation of African Diasporas

Instructor: Baum

This seminar will explore the diversity of African cultures in early modern Africa and the impact of the Atlantic slave trade, the experience of the Middle Passage, and the creation of diasporic cultures in the Americas. Using a variety of sources, including ethnographies, films, and literature, students will consider the richness of African cultures from the sixteenth to the eighteenth centuries and their influence in the creation of new cultural traditions in the Americas. Open to students who have taken one course in AAAS or who have permission from the instructor.

Distributive: Dist:TMV; WCult:CI

AAAS 90.08 - Identity and Power in the Americas

Instructor: Baldez

This course examines how different forms of collective identity—including class, race, ethnicity, indigeneity and gender—have shaped Latin American and Latino politics in the 20th and 21st centuries. We will focus on a range of cases in Latin America and the U.S. to address the following questions: In what ways does the state create and sustain certain categories of identity as the basis for political inclusion and exclusion? What explains changes in the political salience of certain categories of collective identity? Why do some identities become politically salient and others do not? How have forms of political representation changed over the past century? How does state policy affect the ability of groups to mobilize and press for demands? How do organized groups affect state policy? What are the possibilities and limitations of identity-based mobilization?

Cross-Listed as: LACS 80.02; GOVT 84.06

Distributive: Dist:INT; WCult:W

AAAS 90.02 - Prophetism in the Black World

Instructor: Baum

This seminar utilizes historical, anthropological, and comparative religions perspectives to examine the relatively widespread phenomena of prophetism in the black world. We will explore the lives and prophetic careers of people who claimed direct revelation from a supreme being or lesser spirits in indigenous African religions, Islam, and African and African-American Christianity. We will examine such movements before European occupation as well as the colonial and post-colonial eras. We will also examine African-American movements from the period of slavery and the twentieth century. Topics will include women’s prophetic movements, religious critiques of underdevelopment, the process of inculturation of Islam and Christianity, and the role of religion in resistance to foreign or domestic domination.

Cross-Listed as: REL 80

Distributive: Dist:TMV; WCult:CI

AAAS 90.09 - Carceral Geographies: Explaining Mass Incarceration in the US

Instructor: Booker

This course is designed to explore and explain these questions by unpacking the roles of surveillance, criminalization, policing and incarceration to historical and contemporary US state formation and global capitalism. Proceeding from the idea that carceral geographies such as prison towns, policing, and surveillance are spatial fixes for social, economic, and political crises, we will engage scholarship from a variety of fields including: critical prison studies, geography, cultural studies, gender and sexuality studies, and critical ethnic studies. Students will have an opportunity to understand the historical and contemporary organization of people, places, ideas, and infrastructure that makes up US carceral geographies of the United States. This course requires dedicated and rigorous reading. Each week we will read an entire book and analyze it in depth to create shared language and understandings about carceral geographies.

Cross-Listed as: WGSS 37.04

Distributive: Dist:SOC

AAAS 90.10 - Modern Black Spiritualities

Instructor: Booker

This advanced seminar places contemporary black religions at the center of the study of African-descended peoples. Through recent books in the ethnography of Africana religions, spiritual communities in Africa, the Caribbean, and North America that have established communities in the United States will constitute the focus of our course readings and anchor our weekly discussions. As an advanced seminar, our meetings will allow participants to interrogate the authors of these ethnographies. We will assess how these accounts have conceptualized the African diaspora and the vantages...
AAAS 91.02 - 20th Century Protest Poetry

In light of recent protest movements that target issues of race and gender, the prescient words of numerous artists continue to be evoked and volleyed about in contemporary media outlets. Yet the contexts of many of these utterances are largely ignored. Delving into some of these contexts and engaging many of these artists' larger oeuvre, this course is a multidisciplinary investigation of major protest poets of the twentieth century. It explores the ways in which poets living in the United States, and particularly members of historically marginalized communities, not only pushed back at the powers-that-be, but continuously saw and articulated themselves as simultaneously a part of and a part from larger “American” society. The course wrestles with the well-known and often contentious topics: race, class, and gender. Starting with turn-of-the-century writers like Claude McKay—whose words have become synonymous with outspoken critiques of World War I and the “Red Scare”—and ending with contemporary poets like Balakian and Chin, the course moves chronologically. Some of the writers it examines include, Peter Balakian, Amiri Baraka, Staceyann Chin, Lucille Clifton, Mayda Del Valle, Karen Garrabrant, Allen Ginsberg, Zbignew Herbert, Robert Lowell, Juan Felipe Herrera, Langston Hughes, Etheridge Knight, Denise Levertov, Haki Madhubuti, Jill McDonough, Claude McKay, Alice Notley, Emmy Perez, Adrienne Rich, Sylvia Plath, Sonia Sanchez, and Dorothy Tse.

Cross-Listed as: ENGL 73.30
Distributive: Dist:LIT; WCult:CI

AAAS 91.03 - African Religions, Health, and Healing Traditions

Instructor: Baum

This seminar examines the complex interaction of African, Christian, Muslim, and Western medical traditions in the understanding of, diagnosis of, and healing of illnesses within African societies. This is a capstone course for the AAAS major and minor and will include a major term paper. Cases will be drawn from anthropological, comparative religious, historical, literary, and artistic perspectives.

Cross-Listed as: REL 74.15
Distributive: Dist:INT or TMV; WCult:CI

AAAS 91.05 - Maroons to Marley: Jamaica's Role in Worldwide Revolutions from Slavery to the Present Day

In 1738, a hundred years before legal emancipation came to England’s New World slave colonies, Jamaica’s Maroons forced the colonial power to sign a treaty granting sovereignty to Maroon communities across the Caribbean island. As the first Africans in the New World to achieve this feat, Maroon warriors directly and indirectly influenced abolitionist and revolutionary movements throughout the Americas—including, of course, revolts in Haiti and the United States. These warriors continued to inspire the revolutionary actions of other oppressed and/or enslaved individuals for generations, and indeed, a revolutionary ethos pervades Jamaican culture and artistic production from the colonial period to the present moment.

This course traces the impact of “Jamaican” revolutionary figures on other revolutionary figures and events worldwide. Moving chronologically, from colonialism to the present day, the course examines influences such as African/Jamaican Maroon leaders direct impact on other revolutions throughout the Americas; Mary Seacole’s exchanges with and impact on Florence Nightingale during the Crimean War; Marcus Garvey’s impact on the Harlem Renaissance and the Rastafari religion; Claude McKay’s revolutionary impact on vernacular poetics and on the “Red Scare;” Louise Bennett’s mid-twentieth century revolutionary, feminist, vernacular poetics and her impact on female performers in the Americas, Europe, and Africa; Bob Marley and Damian Marley’s impact on politics and revolutionary movements in Liberia and Ghana; and finally, the impact of Staceyann Chin’s outspoken poetics on LGBTQ rights in the Caribbean and in other marginalized African diasporic communities. Not open to students who have received credit for AAAS 62.50.

Cross-Listed as: AAAS 62.50 ENGL 55.19
Distributive: Dist:SOC

AAAS 97 - Senior Independent Research in African and African American Studies

For senior African and African American Studies majors toward the culminating experience, with permission of selected instructor and the Chair. (Obtain Proposal Form in the program office.)

AAAS 98 - Honors Thesis in African and African American Studies

The honors student will pursue the project under guidance of a selected faculty member and with permission of the Chair. See "A Guide to Honors in African and African American Studies" in the program office.
Students are awarded one course credit for successful completion of this course upon completion of AAAS-099. Students register for AAAS-098 and receive a grade of "ON" (ongoing) at the end of the term. Students then register for AAAS-099 the subsequent term to complete the coursework. A final grade will replace the "ON" in AAAS-098 upon completion of AAAS-099.

AAAS 99 - Honors Thesis in African and African American Studies

The honors student will pursue the project under guidance of a selected faculty member and with permission of the Chair. See "A Guide to Honors in African and African American Studies" in the program office.

Students are awarded one course credit for successful completion of this course. Students who have registered for AAAS-098 register for AAAS-099 to complete the coursework. A final grade will replace the "ON" for AAAS-098 upon completion of this course for a total of 2 credits for AAAS-098 and AAAS-099.

Associated Courses

Associated courses are those with a central focus on aspects of Africa and/or the African diaspora. These courses may be offered by various departments and programs. Associated courses, including those not on this list, may count toward a major or minor in AAAS. To obtain credit, students must petition the AAAS Steering Committee, outlining how their work in a particular course forms part of a coherent course of study in AAAS.

Environmental Studies 40, Foreign Study in Environment Problems I
Environmental Studies 42, Foreign Study in Environment Problems II
French 21: Introduction to Francophone Literature and Culture
French 70: Francophone Literature
Geography 16: The Political Economy of Development
Geography 27: Race, Identity and Rights
Geography 28: Immigration, Race, and Ethnicity
Geography 25: Social Justice and the City
Geography 43: Geographies of Latin America
Government 25: Problems of Political Development: India, South Africa, and China
Government 86: Race, Law and Identity
History 96: Race, Ethnicity and Immigration in U.S. History
History 96.22: Topics in West African History
Music 4: Global Sounds
Music 51: Oral Tradition Musicianship
Psychological and Brain Sciences 53: Stereotypes, Prejudice and Discrimination
Sociology 47: Race and Ethnicity in the U.S.
Theater 10: Special Topics in Theater

Anthropology

Chair: Jesse J. Casana


Contact the Department Administrator, Julie Gilman, for further information.

Requirements for the Major

The Major in Anthropology comprises ten courses, to be selected as follows:

1. Two introductory courses from the following six courses: ANTH 01, 03, 05, 06, 08, or 09
2. Seven other Anthropology courses. Courses must include at least one from each sub-field: ARCH, CULT, and BIOL.
3. A Culminating Experience Seminar which is designated by course numbers in the 70s above ANTH 70, (e.g. 72, 73, 74, 75, 76). Seminars are usually offered in fall and spring terms.

Statistics: All anthropology majors are encouraged to take a course in statistics. Students who plan to undertake independent research, especially in archaeology or biological anthropology, and any student considering attending graduate school in anthropology or related fields should take at least one statistics course: e.g., GOVT 10, MATH 10, QSS 15, PSYC 10, SOCY 10.

Concentrations: Anthropology majors may choose to concentrate in a sub-field of anthropology by taking at least four courses in: archaeology, biological anthropology, or cultural anthropology.

Archaeology is the scientific study of past human behavior and societies from material remains of the earliest human ancestors to recent times. Students concentrating in archaeology should take at least one topical course and one regional course in archaeology. Students interested in graduate studies in archaeology should take a statistics course and have fieldwork experience that can be gained by enrolling in an archaeological field school for transfer credit.

Biological anthropology is the study of human biological variation and evolution. Biological anthropologists seek to document and explain the patterning of biological variation
among contemporary human populations, trace the evolution of our lineage through time in the fossil record, and provide a comparative perspective on human uniqueness by placing our species in the context of other living primates. Students concentrating in biological anthropology are advised to take a course in statistics, as well as one or more advanced courses in biological sciences.

Cultural anthropology addresses broad questions about what it means to be human in contemporary societies and cultures, as well as those of the recent past. Cultural anthropologists systematically explore topics such as technology and material culture, social organization, economies, political and legal systems, language, ideologies and religions, health and illness, and social change. Students concentrating in cultural anthropology are strongly advised to take the course in ethnographic research methods, ANTH 18. Students planning on graduate studies in cultural anthropology or related fields are advised to take Main Currents in Anthropology, ANTH 73.

Under special circumstances, students may petition the Anthropology faculty to substitute a course from another department or program to count for the Anthropology major. The petition should be submitted to the Chair, along with a copy of the syllabus for the substitute course and a list of the student’s major courses. The petition must be approved by a vote of the Anthropology Department faculty.

Modified Major
The Modified Major consists of seven courses in anthropology plus four courses above the prerequisite level in one or more other department(s) or program(s). Of the anthropology courses, one must be ANTH 01, 03, 05, 06, 08, or 09 and another must be a culminating experience—ANTH 72, 73, 74, 75, or 76. The seven major courses must include at least one course from TWO of the three sub-fields (ARCH, BIOL, CULT). Students wishing to modify their Anthropology major must submit a written rationale that makes clear the coherence and purpose of their modified major. Students wishing to modify their Anthropology major must submit a written rationale that makes clear the coherence and purpose of their modified major. This rationale must be reviewed by and approved by any faculty in the Anthropology department, and must also be submitted to the Registrar.

If you are interested in pursuing the Honors Program and the faculty approves your thesis proposal, you must enroll in ANTH 88. This course would be counted as the twelfth course beyond the eleven required to complete the modified major.

Minors in Anthropology
The Minor in Anthropology comprises six courses, as follows:

1. One introductory course from the following courses: ANTH 01, 03, 05, 06, 08, or 09.
2. One course from each of the following three subject areas: Archaeology (ARCH), Biological Anthropology (BIOL), and Cultural Anthropology (CULT); the introductory course may count toward the subject area courses.
3. Any three additional courses from the department's offerings.

The Anthropology Minor in Global Health consists of six courses, as follows:
1. An introductory course: ANTH 01 - Introduction to Anthropology or ANTH 03 - Introduction to Cultural Anthropology.
2. At least one course from each of the following five core approaches to the study of global health:
   - Biological Approaches - ANTH 06, 12.18, 20, 40, 41, 43, 70 or courses outside of ANTH such as the infectious disease section of BIOL 11
   - Cultural Approaches - ANTH 04, 09, 12.01, 14, 27, 31, 36, 37, 47, 48, 51, 58, 65
   - Interdisciplinary Approaches - ANTH 12.03, 50.02, 50.17, 62 or an additional ANTH course that stretches your exposure to the discipline and aligns with your interest in global health or a course outside of ANTH such as SOCY 34, 35, 65; GEOG 02, 06, 56; HIST 08.01, 36; ENGS 06, 12; PBPL 26
   - Methodological Approaches - ANTH 18 or another qualitative methods course such as SOCY 11, GEOG 11; a statistics course such as PSYC 10 or SOCY 10; or a course that explores research methods applicable to global health problems such as GEOG 56, ENGS 12, MATH 04
   - Social Studies of Medicine, Health and Disease - ANTH 07.02, 17, 45, 55, 60 or courses outside of ANTH such as SOCY 34, 35, 65; GEOG 02; HIST 08.01, 36

Four of the six courses for the minor must be taken within the Anthropology department. Students cannot use the same course to satisfy more than one requirement. Students wishing to substitute courses not listed above should petition the Anthropology Department in writing in consultation with a department faculty member. The Global Health Minor can be pursued simultaneously with the Dickey Center's Certificate in Global Health.

Honors Program
Students applying to the honors program must meet the minimum College requirements of a 3.0 grade point average and a 3.3 grade point average in the major. By the
end of the third term preceding their graduation, applicants will ordinarily have completed, with a minimum grade of A-, a preparatory reading course (ANTH 85) and will have submitted an Honors thesis proposal for work to be supervised by a primary faculty advisor. Admission to the program is by vote of the Department faculty, which may appoint one or more secondary advisors. Applicants will ordinarily have completed, with a minimum grade of A-, an independent research course (ANTH 87) during the Fall term of their senior year with their faculty advisor for the project.

Students admitted to the honors program must enroll in ANTH 88, Anthropology Honors, in addition to the ten courses ordinarily required in the standard major or eleven courses in the case of a modified major. ANTH 88 may be taken only once; most thesis students will enroll in ANTH 88 in the Winter term of their senior year and take an "Ongoing" for this course, completing it in Spring term of their senior year. Honors students should consult with their advisor about taking ANTH 87, Research Course, and the appropriate sequence of courses for their thesis preparation and writing. The honors project, which culminates in a substantial independent thesis, will be submitted to the primary advisor at least four weeks prior to graduation. Those students completing the program with a grade of A- or higher in their honors course will receive honors recognition in the major. High honors may be awarded by faculty vote for truly exceptional work.

Please note that this does not count as your Senior Seminar/Culminating Experience.

For more detailed information on expectations and requirements for submitting an honors thesis proposal, please see the Anthropology website.

**SUMMARY OF ANTHROPOLOGY CURRICULUM**

The subject areas within the curriculum are outlined in the following list.

*Introductory Anthropology:* 1, 3, 4, 5, 6, 8, 9, 11, 13, 14, 17, 20

*Archaeology:* 5, 8, 11, 12.18, 13, 21, 22, 29, 39, 50.03, 50.05, 50.35, 50.37, 50.39, 57, 75

*Biological Anthropology:* 6, 12.18, 20, 25, 38, 40, 41, 42, 43, 50.23, 50.30, 50.43, 62, 64, 66, 70, 74, 76

*Cultural Anthropology:* 1, 3, 4, 7, 9, 12.01, 12.14, 12.23, 12.24, 12.26, 14, 15, 17, 18, 26, 27, 28, 31, 32, 33, 35, 36, 37, 44, 45, 48, 49, 50.17, 50.21, 50.22, 50.25, 50.31, 50.34, 50.36, 50.38, 50.40, 50.41, 50.42, 50.43, 51, 52, 54, 55, 58, 60, 65, 72, 73

*Culminating Seminars:* 72, 73, 74, 75, 76

Independent Study: 85, 87, 88

**ANTH - Anthropology Courses**

*To view Anthropology requirements, click here (p. 100).*

**ANTH 1 - Introduction to Anthropology**

Instructor: Watanabe

This course explores the unity and diversity of humankind by examining our evolution as a single biological species that nonetheless depends for its survival on learned-and therefore varied as well as variable-patterns of cultural adaptation. Lectures and readings address the relationship between the material conditions of our existence, our unique human capacity for creative thought and action, and changes in the size and scale of human societies.

Distributive: Dist:INT or SOC; WCult:CI

**ANTH 3 - Introduction to Cultural Anthropology**

Instructor: Kivland or Craig

Cultural anthropology is the study of human ways of life in the broadest possible comparative perspective. Cultural anthropologists are interested in all types of societies, from hunting and gathering bands to modern industrial states. The aim of cultural anthropology is to document the full range of human cultural adaptations and achievements and to discern in this great diversity the underlying covariations among and changes in human ecology, institutions and ideologies.

Distributive: Dist:INT or SOC; WCult:NW

**ANTH 4 - Peoples and Cultures of Native North America**

The course provides an introduction to the peoples and cultures of Native North America. A single indigenous group (nation) from different "culture areas" is highlighted to emphasize particular forms of economy, social organization, and spirituality. The course focuses on the more traditional American Indian cultures that existed before the establishment of Western domination, as well as on the more recent native culture history and modern-day economic, sociopolitical and cultural continuity, change, and revitalization. Open to all classes.

Cross-Listed as: NAS 10

Distributive: Dist:SOC; WCult:NW

**ANTH 5 - Reconstructing the Past: Introduction to Archaeology**

Instructor: Creamer

Anthropological archaeology makes a unique contribution to understanding the human past. This course introduces
the key concepts, methods and techniques used by modern archaeologists to interpret the past. Students will become better acquainted with archaeological methods through small projects and the discussion of case studies.

Distributive: Dist: SOC

**ANTH 6 - Introduction to Biological Anthropology**

Instructor: Thayer

The major themes of biological anthropology will be introduced; these include the evolution of the primates, the evolution of the human species, and the diversification and adaptation of modern human populations. Emphasis will be given to (1) the underlying evolutionary framework, and (2) the complex interaction between human biological and cultural existences and the environment.

Distributive: Dist: SCI

**ANTH 7 - First-Year Seminars in Anthropology**

Instructor: Ogden

**ANTH 8 - The Rise and Fall of Prehistoric Civilizations**

One of the most intriguing questions in the study of human societies is the origins of cities and states or the transformation from small kinship-based societies to large societies that are internally differentiated on the basis of wealth, political power, and economic specialization. This course examines the explanations proposed by archaeologists for the development of the first cities and state societies through a comparative study of early civilizations in the Old World and the Americas.

Distributive: Dist: INT or SOC; WCult: NW

**ANTH 9 - Language and Culture**

Instructor: Billings

This course introduces major themes and thinkers in the development of the study of language and culture in Anthropology and Linguistics. The course begins with theories of the linguistic sign and then explores how these have been applied to the study of sound and meaning. We ask questions about the connections between grammar and cognition, language diversity and cultural variation, and the role of language use in the production of social life and cultural worlds.

Distributive: SOC

**ANTH 11 - Ancient Native Americans**

Instructor: McLeester

This course provides an introduction to the ancient societies of North America. The course examines the populating of the Americas and related controversies. We then concentrate on the subsequent development of diverse pre-Columbian societies that included hunter-gatherer bands in the Great Basin, the Arctic, and the sub-Arctic; Northwest Coast chieftdoms; farmers of the Southwest, such as Chaco Canyon and the desert Hohokam; and the mound-builders of the Eastern Woodlands.

Cross-Listed as: NAS 011

Distributive: Dist: SOC; WCult: NW

**ANTH 12 - Anthro Gateway Courses**

The courses under this rubric ANTH 12.XX will vary by subfield. As such, distributives may incorporate any of the following: INT, SCI, SOC, TLA, SLA, TMV.

**ANTH 12.01 - Ethnographic Film**

Instructor: Ogden

Ethnographic film crosses the boundaries between academic anthropology and popular media. This course addresses the construction of meaning in ethnographic films in relation to written anthropology. It focuses on individual films, analyzing their significance from the perspectives of filmmakers and audiences. The class will appeal to students of anthropology and film as well as others interested in international studies and the politics of cross-cultural representation.

Cross-Listed as: FILM 41.04

Distributive: Dist: INT or SOC; WCult: NW

**ANTH 12.10 - Jews and Arabs: Entangled Histories**

This course looks at the interaction between Jews and Arabs throughout history. We examine Jewish history, culture, and social life in Middle Eastern and Islamic lands from the advent of Islam to the emergence of modern nation-states in the Middle East. Along the way, we will make stops in medieval Islamic Egypt, Andalusia, the Ottoman Balkans, the Arabian Peninsula, and other places in which Jewish communities thrived and left records. We pay special attention to the influence of the broader forces that shaped Jewish history and social life throughout the Middle East, and the ways in which Jews and Arabs interacted at the social, cultural, economic, and political levels in diverse contexts and time periods.

Cross-Listed as: JWST 66.02

Distributive: Dist: SOC; WCult: CI

**ANTH 12.11 - Arctic Crossroads**

Once considered a remote frontier with a shallow history and marginalized peoples, "the big thaw" is transforming the Arctic into an international melting pot with a surprisingly deep and complex history. This course presents the 40,000 year history of the circumpolar Arctic through the latest discoveries in environmental science, archaeology, ethology, history, and art. We will also explore how Europeans 'discovered' the Arctic, beginning with the voyages of Pythias, the sagas of Norse Vikings, Frobisher's Northwest Passage quest, and Dezhnev's
ANTH 12.18 - Anthropology and the Forensic Sciences

Forensic anthropology is the application of the science of anthropology and its subfields, including Biological (physical) Anthropology, Cultural Anthropology (Ethnology), and Archaeology, in a legal setting. Traditionally the forensic anthropologist will assist law enforcement agencies in the retrieval and identification of unidentified human remains. This course will introduce the student to various anthropological sub-disciplines used in the fields of forensics, including: (1) search for clandestine burials; (2) excavation and retrieval of human remains; (3) identification of human remains (sex, age, race, cause of death, and pathology); (4) handling of evidence; (5) interaction with law enforcement agencies; (6) presentation of data, results and evidence; (7) review of forensic and anthropological case studies; and (8) guest lectures.

Distributive: SCI

ANTH 12.19 - Crossing Over: Latino Roots and Transitions

This course focuses on the histories and experiences of Latinx transnational migrants—from Mexico, Central America, Puerto Rico, the Dominican Republic, and Cuba—living in the United States. You will study the historical, political, and economic processes that have led to these migrations, as well as the varying ways in which race/ethnicity, class, gender/sexuality, and citizenship affect Latinx migrant lived experience. Given our focus on “crossing,” readings will foreground subjects that capture this theme, from the literal movement of people, to the constant back and forth that shapes Latinx lives, to the adjustments Latinx people make given their language, their proximity to other immigrants and communities of color, and their varying acceptance within the United States.

Cross-Listed as: LATS 044 SOCY 043
Distributive: Dist:SOC; WCult:CI

ANTH 12.20 - African Diasporas

This course introduces a global socio-historical framework within which to examine African popular cultures across the continent and as they circulate globally. Considering the historical contexts of contact between Africa, Europe, and the Americas, we will explore cultural, economic, and philosophic aspects of African expressive cultures. Focusing on Ghana, Nigeria, and South Africa, we will study music, film, dance, social media, theater, and literature, and consider how ideas of what it means to be African are produced and contested through these media. No prerequisites required.

Cross-Listed as: AAAS 87.09
Distributive: Dist:INT; WCult:NW

ANTH 12.21 - Religion and Imperialism

An examination of the impact of imperial expansion on the religious systems of the conquered. The course will focus primarily on the religious consequences of European expansion in North America and Africa but will also examine Jewish responses to Roman imperialism at the time of Jesus. We shall examine the attempts of traditional religious leaders to explain and control the imperial presence as well as the development of new religious movements that grew out of spiritual crises of conquest. This course will examine various types of prophetic movements and revitalization movements that developed in response to conquest as people sought to preserve their cultural identities in the face of their forced integration into imperial systems. Issues of conversion to religions associated with the conquerors as well as the challenges of secular culture will be discussed. Open to all.

Cross-Listed as: REL 067
Distributive: Dist:SOC; WCult:CI

ANTH 12.22 - Introduction to African Studies

This course introduces a global socio-historical framework within which to examine Africa in relation to multiple African Diasporas and notions of mobility. Considering the historical contexts of contact between Africa, Europe, and the Americas, we examine cultural, economic, and philosophic aspects of Africa. We will examine how ideas of what it means to be African culturally, racially, and politically are continually produced and contested. The moment of independence of many African nation-states from European colonial rule in the mid 20th century operates as a centering point from which we will examine economics, race, politics, and artistic expressions. We will consider ideas of “tradition” and “modernity,” representations of Africa, more recent processes of commodification, as well as various cultural and political responses to them.

Cross-Listed as: AAAS 011
Distributive: Dist:SOC; WCult:NW

ANTH 12.23 - Africa’s Time? An Interdisciplinary Survey of Temporality and Power

Centered in Africa, this course explores the theme of temporality through attention to history, anthropology, philosophy, and popular theoretical physics. There will be no mathematical calculation required. However, we will consider difficult formulas of another type. Is time a constant across cultures and reference frames both physical and ontological? How do past, present, and future intersect? How has the perception of time influenced
historical encounters on the African continent and within the African diaspora? How does time relate to ancestry and power?

Cross-Listed as: AAAS 87.12
Distributive: Dist:SOC; WCult:NW

**ANTH 12.26 - Environmental Justice**

Instructor: Greenleaf

Around the world, people suffer because of environmental degradation, from sickening industrial pollution to unnatural disasters to disruptive climate change. This course examines how environmental harms are unequally experienced, as well as how communities organize to protect themselves. We will discuss the concept of "environmental justice" as it has developed through social movements in the United States and elsewhere. We will also explore it as an analytical category that (a) explains how inequality manifests environmentally and (b) enables critical thinking about concepts like the "environment" and mainstream environmentalism and environmental policy. Drawing from Anthropology, Geography, History, Sociology, and other disciplines, we will focus on the lived experiences of environment justice and injustice around the world. Not open to students who have received credit for GEOG 068.

Cross-Listed as: GEOG 068 GEOG 39.01
Distributive: Dist:SOC

**ANTH 13 - Who Owns the Past?**

Instructor: Casana

Modern archaeology grew out of antiquarianism, imperialism, and the attempts of early collectors and scholars to look to the past for aesthetics, to construct identities, and to satisfy their curiosities. This course examines how these legacies influence contemporary archaeology, museum practices, and policies to manage cultural heritage. The central question will be explored utilizing the perspectives of the relevant actors: archaeologists, collectors, museums, developers, descendant communities, national and local governments, and the tourism industry.

Cross-Listed as: CLST 11.09
Distributive: Dist:SOC; WCult:CI

**ANTH 14 - Death and Dying**

Instructor: Kan

Using anthropological and historical works, novels and films, the course explores the meaning of death in a variety of cultures. Particular attention is paid to understanding native ideas about the person, emotions, life cycle, and the afterlife, as well as the analysis of mortuary rituals and the experience of the dying and the survivors. The course also offers an anthropological perspective on the development of the modern American ways of dealing with death and dying.

Distributive: Dist:INT or SOC

**ANTH 15 - Political Anthropology**

The political anthropology of non-Western societies raises basic questions concerning the nature of authority, coercion, persuasion, and communication in both small-scale and complex societies. Classical approaches to problems of freedom and order are challenged through examples drawn from various societies. Topics including the ideologies and language of political domination, revolution, wealth, and the transition to post-modern societies are assessed, as are factions, knowledge and control, state secrecy, state and non-state violence, and religious fundamentalism.

Distributive: Dist:INT or SOC; WCult:NW

**ANTH 17 - The Anthropology of Health and Illness**

Instructor: Carpenter-Song

This introduction to medical anthropology focuses on the cross-cultural study of health and illness. Medical anthropology also speaks to issues of global health equity, human rights, and social suffering. This class examines the role of the healer/physician in a variety of societies, explores the boundaries between 'religion' and 'science' as they relate to healing, considers 'traditional medicine' and examines processes and practices of 'medical pluralism' by investigating how individuals and communities make health care-related decisions.

Distributive: Dist:INT or SOC

**ANTH 18 - Research Methods in Cultural Anthropology**

Instructor: Carpenter-Song

This course will introduce students to the premier method of empirical research in cultural anthropology: participant observation, and associated informal dialogue and interviewing. We will study techniques for planning and carrying out such research, and for recording, checking validity and reliability, storing, coding, analyzing and writing up of ethnographic data. Students will undertake "mini" research projects, and become familiar with basic ethical issues, informed consent, writing of research proposals, formulating research contracts, and sharing results with cooperating individuals and groups.

Distributive: SOC

**ANTH 20 - Primate Evolution and Ecology**

Instructor: Dominy

Humans are primates. The biology of our species cannot be fully understood outside of this context. This course offers
a broad survey of living nonhuman primate diversity. The physical, behavioral, and ecological attributes of each of the major groups of primates will be discussed. Emphasis will be placed on traits relating to diet, locomotion, growth, mating, and social systems. Students will gain a comparative perspective on humankind.

Distributive: Dist:SCI

ANTH 21 - The Aztecs
Instructor: Nichols
Mexico City once the capital of New Spain overlies the remains of Tenochtitlan, capital of the Aztec empire. This course examines the development of the Aztec empire, the organization of Aztec society and religion, and the Spanish conquest of the Aztec. It ends with an introduction to Nahua society in the first century after conquest. We will also consider the varied perspectives of Aztec history offered by Nahua texts, archaeology, history, and art history.

Distributive: Dist:SOC; WCult:NW

ANTH 22 - Olmecs, Maya, and Toltecs: Ancient Civilizations of Mesoamerica
The course begins by discussing how people first occupied Mesoamerica during the Ice Age and then examines the development of agriculture and early villages that laid the foundations for Mesoamerica’s earliest complex societies, including the Olmecs. We then explore the Classic period civilizations of Teotihuacan, Monte Albán, and the Maya and the Postclassic city-states of the Toltecs, Mixtecs, and Maya and the Aztec empire at the time of the Spanish Conquest. (ARCH)

Distributive: Dist:INT or SOC; WCult:NW

ANTH 25 - Primate Biomechanics
Instructor: DeSilva
This course is an introduction to the physical principles and musculoskeletal anatomies that underlie primate behavior, including especially primate locomotion and diet. We will study basic mechanics, bone biology, soft tissue and skeletal anatomy, primate behavioral diversity, and the primate fossil record in order to address why bones are shaped the way they are, and how scientists reconstruct behavior from fossils. Emphasis will be on primate locomotion, including the origins and evolution of human bipedalism.

Distributive: Dist:SCI

ANTH 26 - Gender and Global Health
Instructor: Kivland
This course will examine the intersection of gender and health. Readings will be from medicine, history, journalism, and the social sciences. We will interrogate the relationship between biology, science, and culture, focusing our attention on the cultural construction of healing and embodied experience of illness. We will examine how cultural institutions, ideologies, and practices contribute to health disparities along lines of race, class, and gender, paying attention to medicine’s role in gendering the body.

Distributive: Dist:SCI

ANTH 27 - Economic Anthropology in a Changing World
Instructor: Greenleaf
The idea of “the economy” is powerful. Government policies try to make it grow and politicians are voted out if it doesn’t. Fortunes rise and fall with economic indicators and market values. But what is the economy? In this economic anthropology course, we will address this question differently than an Economics course would. Rather than approaching the economy as an abstraction that exists apart from human societies, we will critically explore how it is created and experienced through activities and relationships that are part of everyday life.

Our focus will be on how markets, commodities, labor, property, and money shape people’s identities and relationships. We will pay particular attention to the ways that power works, often invisibly, through economic forms, and how this can make inequality and governmental power appear acceptable and even natural. Finally, we will examine relations between “the economy” and “the environment” in the context of climate change and environmental degradation. Through engagement with ethnographic and other scholarship, students will learn to critically understand key contemporary economic issues in the United States, as well as in countries like Brazil, Egypt, and Italy.

Distributive: Dist:INT or SOC

ANTH 28 - Ethnography of Violence
Instructor: Kivland
Violence is widely recognized as a problem in modern society, with policies and interventions to combat violence, or employ it, dominating local and global politics. Yet the meaning of violence is seldom analyzed. Using an ethnographic lens, this course explores violence as both an embodied experience and a culturally and politically mediated event. We examine spectacular and everyday violence forms of violence in terms of manifestations of power, structures of inequality, perceptions of difference, and politics of representation. Ethnographic studies are drawn from, among others, Mozambique, Haiti, and Harlem. An introduction to the cultural anthropology of violence, this course raises key questions about violence in a globalized world and explores how to study it anthropologically. This course is not open to students who have received credit for ANTH 12.03.

Cross-Listed as: WGSS 42.05; AAAS 88.08
ANTH 29 - Landscape Archaeology
Instructor: Casana
Landscape archaeology seeks to better understand human history through the systematic exploration of large regions, documenting the age and distribution of ancient settlements and other features such as roads, canals, and field systems that are visible on the ground surface. As opposed to focusing on individual sites, landscape archaeology provides a regional perspective on the ancient world and is therefore uniquely capable of revealing past trends in population, the density and distribution of settlement over time, and the ways that ancient peoples interacted with and understood their environments.
Distributive: Dist:INT or SOC; WCult:NW

ANTH 31 - Gender in Cross-Cultural Perspective
Instructor: Billings
Sex (biological differences between men and women) and gender (social constructions of those differences) are not straightforward or natural. Gender inequalities are also not straightforward and natural. This course thus pays close attention to issues of power and inequality, including the ways in which Western gender ideals have been imposed on people in other parts of the world. We will also engage with perceptions, images, stories, encounters, games, connections, disconnections, practice and resistance.
Distributive: Dist:INT or SOC; WCult:CI

ANTH 32 - Anthropology of Tibet and the Himalayas
This course introduces students to the peoples and cultures of Tibet and the greater Himalayan region (Nepal, northern India, Bhutan). We examine the cultural, ecological, political, religious, and economic interfaces that define life on the northern and southern slopes of Earth's greatest mountain range. In addition to learning about Himalayan and Tibetan lifeways, we will also learn about how these mountainous parts of Asia have figured into occidental imaginings, from the earliest adventurers to contemporary travelers.
Cross-Listed as: ASCL 55.01
Distributive: Dist:SOC; WCult:NW

ANTH 33 - The Global Caribbean
Instructor: Kivland
Paradise or plantation? Cultural destination or economic periphery? Capitalist birthplace or IMF delinquent? From the Columbian conquest to contemporary tourism, the Caribbean has borne the burdens and opportunities of being an intercontinental crossroads. Colonial governments, enslaved Africans, indentured servants, and foreign settlers have all made the Caribbean an exemplar of modernity and globalization—for better or worse. Drawing on social scientific, literary, and policy texts, this course offers an historically deep and geographically broad anthropology of the Caribbean.
Cross-Listed as: AAAS 83.08 LACS 038
Distributive: Dist:SOC; WCult:NW

ANTH 35 - Maya Indians Under Mexican and Guatemalan Rule
This course explores the contemporary Maya cultures of Mexico and Guatemala against the backdrop of nearly five hundred years of conquest, colonialism, revolution, and nation-building. Given the contrasting, at times deeply antagonistic, cultures and identities that have resulted, this course focuses on issues of Maya ethnicity, inequality, and nationalism in these two closely related yet historically distinct countries.
Prerequisite: One course in Anthropology or Latin American, Latino and Caribbean Studies.
Distributive: Dist:SOC; WCult:CI

ANTH 36 - Contemporary Africa: Exploring Myths, Engaging Realities
This course focuses on processes, relationships, and experiences that have shaped, and continue to shape, the lives of Africans in many different contexts. These include issues of ecology and food production, age, gender, ethnicity, exchange, colonialism, apartheid, and development. We will then embark on in depth readings of ethnographies that engage these issues and themes. In the processes we will move beyond prevailing stereotypes about Africa, to engage the full complexity of its contemporary realities.
Cross-Listed as: AAAS 44
Distributive: Dist:INT or SOC; WCult:CI

ANTH 37 - Legacies of Conquest: Latin America
Despite nearly five hundred years of conquest, colonialism, and change, native peoples still survive in culturally distinct enclaves within the dominant Iberian traditions of Latin America. This course examines the roots as well as the endemic social inequalities and prejudices that resulted. Selected case studies will relate to such contemporary problems as international drug trafficking, deforestation of the Amazon basin, and ongoing political repression and revolution in Central America. The course draws on the insights of local ethnographic studies to shed light on global problems, while anthropologically situating native cultures of Latin America in their larger historical and geopolitical context.
Prerequisite: One course in Anthropology or Latin American and Caribbean Studies.
Distributive: Dist:SOC; WCult:CI
ANTH 38 - Human Behavioral Ecology
Instructor: Dominy
The human condition is characterized by immense biological and behavioral variation. The extent to which such variation is adaptive is topic a great importance and controversy. Current research in the field of human behavioral ecology reflects a growing interaction between the social and biological sciences. The objectives of this course are to critically examine the origin and development of this discipline and to survey the physiological and behavioral ways that humans interact with their environment.
Distributive: Dist:SCI

ANTH 39 - Archaeology of the Middle East
Instructor: Casana
This course provides an introduction to the civilizations of the ancient Middle East and to the history of archaeological research in this important region. Encompassing the modern nations of Iraq, Iran, Syria, Turkey, Jordan, Lebanon and Israel/Palestine, the Near East saw the emergence of the world’s first villages, cities, and empires, and is therefore central to our understanding of human history. Following an overview of its geography, this course offers a survey of Middle Eastern cultural development, art, and archaeology from the earliest evidence of human settlement around 13,000 BC to the conquest of the region by Alexander the Great. This course is not open to students who have received credit for ANTH 12.02 - Archaeology of the Ancient Near East
Cross-Listed as: MES 03.02
Distributive: Dist:INT or SOC; WCult:NW

ANTH 40 - Human Functional Anatomy
Instructor: Dominy
Anatomy is a science of nomenclature; it provides a universal language for understanding how and why form supports function. Such a biomechanical conceptual framework can inform our understanding of human biology. Yet the anatomical novelties that characterize modern humans are best appreciated when contextualized against living nonhuman primates and the hominin fossil record. Student grades will be based on a mastery of concepts from lectures and labs featuring cadavers, skeletal materials, models, and casts.
Distributive: Dist:SLA

ANTH 41 - Human Evolution
Instructor: DeSilva
The fossil record demonstrates that humans evolved from an extinct ape that lived in Africa more than 5 million years ago. Paleoanthropology is the branch of biological anthropology that seeks to document and explain the evolution of our lineage using paleontological and archaeological data. This course provides a survey of human evolution in light of current scientific debates. Emphasis will be placed on reconstructing the biology and behavior of prehistoric species.
Distributive: Dist:SCI

ANTH 42 - Medical Gross Anatomy: Scars of Human Evolution
Instructor: Dominy
Human anatomy is important for medical professionals, artists, and anthropologists. This dissection-based course will explore the human body and its many imperfections. The deficiencies of our bodies—clumsy compromises in our teeth, feet, backs, bottoms, and birthings—are chronic clinical concerns that reflect our evolutionary history. Taking a cue from Wilton Krogman’s 1951 classic, Scars of Human Evolution, this course will demonstrate how and how far the human body fails by the standards of intelligent design.
Distributive: Dist:SLA

ANTH 43 - Human Osteology
Instructor: Voegele
Human osteology is an important component of biological anthropology, with applications in archaeology, paleontology, forensics, and medicine. This course is designed to acquaint students with the normal anatomy of the human skeleton. Our focus is the identification of isolated and fragmentary skeletal remains. Students are introduced to principles of bone growth and remodeling, biomechanics, morphological variation within and between populations, pathology, ancient DNA, taphonomy, and forensics. Practical techniques are developed in regular laboratory sessions.
Prerequisite: ANTH 6 or permission of the instructor.
Distributive: Dist:SLA

ANTH 44 - Language, Gender & Sexuality
Instructor: Billings
This course will introduce students to foundational and current thinking about the connections among language, gender, and sexuality, from readings in linguistics, sociolinguistics, linguistic anthropology, and feminist theory. A cross-cultural approach will characterize the class, and units will link language, gender and sexuality to themes such as power, (in)equality, and identity. Students will also be encouraged to consider the significance of gender and sexuality in the context of quotidian language use.
Cross-Listed as: WGSS 53.07
Distributive: Dist:SOC
ANTH 45 - Asian Medical Systems

This course investigates systems of healing practiced in, and derived from, Asia. We will focus primarily on three Asian medical systems: Ayurveda, Chinese medicine, and Tibetan medicine. We will strive to understand how these medical systems are based on coherent logics that are not only biologically but also culturally determined. We will also analyze the deployment of these medical systems in non-Asian contexts, and examine the relationship between Asian systems and "western" biomedicine.

Cross-Listed as: ASCL 63.01
Distributive: Dist:SOC; WCult:NW

ANTH 48 - From the Sacred to Salvation: The Place of Religion in Human Societies

This course examines religions as cultural systems that give shape and meaning to people's lives and provide them a means, in the form of rituals, to affect their worlds and themselves. The emphasis is on understanding non-Western religions, especially local traditions, through the interpretation of myth, ritual, and symbolism. The relationship of religion to political power and ideology is also explored.

Prerequisite: One course in Anthropology or Religion or permission of the instructor.
Distributive: Dist:INT or TMV; WCult:NW

ANTH 49 - Environment, Culture, and Sustainability

Environmental problems cannot be understood without reference to cultural values that shape the way people perceive and interact with their environment. In this course we will engage with cultural difference with special attention to how the American experience has shaped the ways in which Americans imagine and interact with the environment. We will pay close attention to issues of consumption and conservation and how they have impacted ecologies and human livelihoods around the world.

Distributive: Dist:INT or SOC; WCult:W

ANTH 50.03 - Digital Archaeology

Instructor: Casana

This course will examine how digital technologies, particularly in the geospatial realm, are transforming the ways in which we discover, explore, and interpret the human past. Students will investigate archaeological questions while learning both the art and science of rapidly developing software, instruments, and techniques. The first unit of the course explores regional-scale archaeological problems and the use of aerial and satellite imaging, and GIS-based spatial analysis. We then turn to site-based investigations using archaeological geophysics, photogrammetry, and drones. The final weeks turn to 3D modeling, visualization, and immersive archaeological realities.

Distributive: Dist:TAS

ANTH 50.04 - Digital Heritage: Global Politics and Practices

This course explores the idea of heritage as less of a “thing” and more of a cultural and social process—one that harnesses the act of remembering to create ways to understand and engage with the world. In recent decades, fostered not least through international organizations such as UNESCO World Heritage or the World Monuments Fund, heritage preservation has become a global political movement. Following both a historical and a comparative approach, this course seeks to transcend the Euro-American understanding of heritage, which is still very much the standard in international advisory bodies and address the various unrepresented perspectives, value systems, and frameworks of memory that play a role in heritage as a global phenomenon. As such, this course is designed to be a tool to both study and question heritage preservation and conservation.

Distributive: Dist:SOC; WCult:CI

ANTH 50.05 - Environmental Archaeology

Instructor: McLeester

Archaeological sites preserve not just architectural and artifactual remains, but important clues to how people lived in and acted on their environment. In this course we will explore the types of data used to reconstruct ancient environments and examine theoretical approaches to human-environment relationships. Through case studies, we will confront contentious issues in environmental archaeology and learn how archaeologists integrate the archaeological record with data from history, biology, and geosciences.

Distributive: Dist:SLA

ANTH 50.17 - Rites of Passage: The Biology and Culture of Life’s Transitions

Instructor: Craig/Mishra

This course explores the “rites of passage” concept across time and space, and with close attention to the ways that our bodies shape and are shaped by our social selves. A response to avid student desire to learn more about the intersections of biology and culture within the context of anthropology, this course promotes learning about human biology and the medical humanities.

Distributive: Dist:SOC; WCult:CI

ANTH 50.18 - Anthropocene Imaginaries

The world warms, and global environmental imaginaries transform. Evolving representations of culture and environment have compelling implications for human
rights and indigenous sovereignties over land, water and natural resources. Human security will be shaped not only by the unfolding impacts of climate change, but also by how we frame the understandings and ethical commitments we articulate in response to them. This course will explore the anthropology of climate change, and consider how visions and aesthetics of place in the twenty-first century are interconnected with transforming global discourses about environmental security, governance and power. Blending environmental humanities and social science perspectives, we will also reflect upon critical approaches to political ecology and the idea of “the Anthropocene” itself.

ANTH 50.21 - Filmmaking and Visual Culture

This course is a course where we both learn to make films and examine theories of visual art, sound, film, and digital media. We will learn how to think about and make sounds and images in historically and ethnographically rich ways. In the process we examine notions of power, difference, history, culture, race, class, gender. Twentieth-century politics were intimately linked to the rapid development of radio, television, film, video, and digital media. These media have creatively engaged with local cultural practices around the world in reshaping the nature of artistic expression, national, gendered, and racial difference, and political power. We examine notions of visuality from the perspective of African and African diasporic political configurations and aesthetic responses. This course explores the politics and pragmatics of art, photography, and film in order to delineate visual, sonic, and embodied ways of presenting and experiencing the world particularly in relation to race and gender.

Cross-Listed as: AAAS 88.17
Distributive: Dist:SOC; WCult:NW

ANTH 50.22 - Sovereignty, Race, and Rights

This course examines the colonial legacies of rights, race, gender, and difference and their significance for contemporary global politics and development. By taking an socio-historical approach to the idea of rights we will make connections between sovereignty, the rule of law, representational practices, economy, and citizenship. We will use a critical eye to explore the conditions of naturalness of power. In postcolonial societies we unpack assumptions about the naturalness of power. In postcolonial societies the tensions between ideas of tradition and modernity structure many conflicts over rights, citizenship, and the role of the individual in society.

Cross-Listed as: AAAS 88.16
Distributive: Dist:INT or SOC; WCult:NW

ANTH 50.25 - Law, Power & Society

Instructor: Greenleaf

What is law? In this course, we will explore this seemingly simple question, and look at how scholars from anthropology and other disciplines have addressed it. We will look at law as a means of ordering societies, as an exercise of power, and as a cultural phenomenon that helps us better understand the world around us. We will survey foundational and philosophical thought, delve into law’s role in the United States, and study its manifestations in colonial and postcolonial societies, such as South Africa and Brazil. We will explore the law as both a means of social control and of social change.

Cross-Listed as: GOVT 60.22
Distributive: Dist:SOC

ANTH 50.28 - Racial Geographies: Race and the Politics of Place

This course will explore various themes surrounding the ways in which race shapes the way we understand ideas of place. With a focus on Africa and its diaspora, the course looks at the movement of people and ideas inherent in the concept of diaspora and reflects on how people also reshape social worlds that challenge the way we commonly understand the world to be divided (i.e. by political territories like “countries” or by physical geographies like “continents”). The goal of the course is to start with the concept of “Blackness” and unpack the complexity of various other racial and spatial categories like “Sub-Saharan Africa” “Arab North Africa” “the West” and “diaspora.” The three general themes of territory, flows, and space/futurisms, will be explored in relation to the way they are experienced by people in everyday life, therefore the readings will primarily be ethnographic, following African descendant communities in Africa, Europe and the Americas. However, we will tackle these issues through history and fiction writings as well. Not open to students who have received credit for GEOG 063.

Cross-Listed as: AAAS 60.50 GEOG 071
Distributive: Dist:SOC; WCult:CI

ANTH 50.30 - Human and Comparative Gross Anatomy

Human and Comparative Gross Anatomy is a laboratory class that offers undergraduate students the rare opportunity to learn anatomy through anatomical dissection. Students will work in small teams to dissect human body donors, with various other vertebrate animals also available for dissection and study. Cadaver dissection is the best method by which to learn about the structures of the human body, their integration, and, most importantly, variation among humans. This is an intensive course,
requiring hours of study both in the lab and from texts, but it rewards you for those hours with a strong understanding of anatomy.

Distributive: Dist:SLA

ANTH 50.31 - Humanistic Medicine: Cultivating Compassion in Healers, Patients, and Cultures of Care
Instructor: Carpenter-Song
This course uses experiences of illness and efforts to heal as windows into what it means to be human. Grounded in an interdisciplinary, holistic approach, this course aims to build connections between humanistic inquiry, medicine, and diverse forms of care. The course is organized around three main themes: (1) Becoming a Doctor and the Culture of Biomedicine, (2) Exploring Disease and Illness, and (3) Building a Future of Compassionate Care. This course is relevant for students in a wide range of disciplines, including students pursuing clinical careers; students engaging with medicine and illness as writers or advocates; and students in the humanities and social sciences who are interested in exploring health, illness, and medicine.

ANTH 50.34 - Peoples of Oceania
Instructor: Ferguson
The “Peoples of Oceania” course is an intentionally post-colonial and anti-racist approach to studying the vast and varied cultures of Oceania. We will focus on relationships between the religious, social, political, and economic systems in Oceania, rather than dividing weeks into the four geographic regions: Polynesia, Micronesia, Melanesia, and Australia, which have historically made up the foundation of many Pacific survey courses. Using the work of indigenous Tongan and Fijian scholar Epeli Hau‘ofa (1939-2009) and his seminal text “We are the Ocean” as a guiding force, we will crisscross the atolls and islands that make up Oceania, creating a navigator’s chart of discussions and debates. Major themes discussed in class include: race/gender/class politics surrounding the ownership and control of cultural heritage, indigenous data sovereignty and intellectual property rights, and climate justice as social justice.

Distributive: Dist:INT or SOC; WCult:NW

ANTH 50.35 - The World Turned Upside Down: An Indigenous History of the Andes after the Spanish Invasion
Instructor: Kelly
This course will explore the tension between insiders and outsiders, colonizers and the colonized, Westerners and Natives. Students will examine not only what these tensions meant for the people of the Andes – in the countries of Peru, Bolivia, and Ecuador (and to a lesser extent Chile and Colombia) - but also in what ways similar phenomena occurred in North America and other parts of the world. Among other things, students will investigate differences between insider and outsider accounts, primary and secondary sources, history and archaeology, etc. - while acknowledging the strengths and limitations of these different sources and approaches.

Distributive: Dist:SOC; WCult:NW

ANTH 50.36 - Anthropology and Narrative: Life History, Oral History, and the Ethnographer’s Story
Instructor: Kan
This seminar aims to expand students’ understanding of the power of storytelling in anthropology and to guide them in reading such stories with a critical eye. Students will have the opportunity to conduct their own life history projects as well as to produce a critical analysis of course readings or of texts of their own choosing.

Distributive: Dist:SOC; WCult:CI

ANTH 50.37 - Archaeologies of Religion
Instructor: Wilkinson
Most of humanity’s religious history is only accessible using archaeological evidence. Moreover, even where texts are available, they tend to reflect the perspective of elites. This course therefore explores how archaeological methods can help us better understand religious phenomena in past societies. Topics will include the religion (or lack thereof) of our hominid ancestors (e.g. Neanderthals), the state religions of ancient civilizations, and the complementary perspective that archaeology provides on the World Religions.

Cross-Listed as: REL 20.07

Distributive: Dist:INT or SOC; WCult:NW

Instructor: Kelly
In this course, we will analyze the cultures of energy systems, focusing on clean energy sources. Using a global case study approach, we will examine how energy systems impact historical, cultural, and political dimensions of life. Overall, students will integrate how energy systems relate to social equity and climate change politics. One main theme in the course will be energy conflicts involving Indigenous peoples. Studying these conflicts allows us to investigate the multiple ways of being at stake in defining energy futures.

Distributive: Dist:SOC

ANTH 50.39 - Alcohol in the Ancient World
Instructor: Wilkinson
This lecture and discussion-based course provides an introduction to the production and consumption of beer, wine, and other fermented beverages across the ancient world. We will explore the full range of available source material – written evidence, physical remains, artistic representations, ethnographic accounts, and experimental
archaeology – to develop an account of alcohol as a uniquely potent form of material culture that was embedded within complex webs of social, political, economic, and ritual activity.

Distributive: Dist:SOC

**ANTH 50.40 - Anthropology of Disaster**

Instructor: Kumaki

Disasters are often conceptualized as an event that disrupts the normalcy of the everyday. In contrast, anthropology of disaster has long analyzed disasters and their effects as amplifications of the normal functioning of a society. This course examines the temporal and spatial scales, categories and concepts, as well as modes of attention we deploy to understand and respond to disasters. By drawing on texts from anthropology, history, science and technology studies, and environmental justice, we will develop analytical tools to elucidate how social norms and power relations are reorganized and reproduced through disasters, often in unequal ways.

Distributive: Dist:INT or SOC

**ANTH 50.42 - Indigenous Responses to Colonialism: Maya and Maori**

Instructor: Watanabe

This course compares how Maori in New Zealand and Maya in Mexico and Guatemala survived European colonialism to become distinct peoples in a world of postcolonial nation states. Comparison addresses both the diversity of indigenous worlds and changes in European colonialism between the sixteenth and nineteenth centuries through the study of cultures as emergent interactions of meaning and power within and between groups, and of racism as the rationalization of institutionalized inequalities across human differences.

Distributive: Dist:INT or SOC; WCult:CI

**ANTH 50.43 - Social, Environmental, and Health Impacts of Human Conflict**

Instructor: Uwizeye

This course will introduce students to the impacts of genocide, war, and other forms of structural violence on population, individual, and environmental health. Students will examine these impacts primarily from public health, life history, and ecosystem perspectives. This course also asks students to think critically about opportunities for scholarly contributions to prevent and/or mitigate these impacts.

Distributive: Dist:SOC; WCult:NW

**ANTH 51 - Colonialism and Its Legacies in Anthropological Perspective**

Instructor: Thayer

Between the 16th and mid-20th centuries, European nations and Japan colonized much of the rest of the world. This course examines similarities and differences in the practices of these colonial powers in different regions at different times and the impact they had on indigenous peoples and societies. It traces the ways in which colonial processes and experiences have shaped the politics, economics, and identities of both developed and developing nations in the world today.

Distributive: Dist:INT or SOC; WCult:CI

**ANTH 52 - Introduction to Maori Society**

Instructor: Thayer

Credit for this course is awarded to students who have successfully completed the designated course in the department of Anthropology at the University of Auckland during the Dartmouth foreign study program in Anthropology and Linguistics and Cognitive Science.

Prerequisite: Two courses in Anthropology.

Distributive: SOC

**ANTH 54 - Foreign Study in Anthropology**

Instructor: Thayer

This course explores human responses to disease and illness from the perspective of medical anthropology, with a particular focus on international health. In this context, 'global health' not only refers to health care systems, medical practices, and ideas about illness and the body in cross-cultural contexts, but also encompasses issues of health development paradigms, culture and epidemiology, global health equity and human rights issues.

Distributive: Dist:INT or SOC

**ANTH 55 - Anthropology of Global Health**

Instructor: Thayer

What led human societies to accept social inequality? This question is as old as the earliest political writings and a central theoretical issue in anthropology. With the collection of detailed archaeological data from multiple world regions, anthropologists have developed case studies for working out the emergence of social inequality. This course will explore the theoretical expectations of multiple approaches to inequality, and then focus on current archaeological evidence from multiple world regions.

Distributive: Dist:INT or SOC
**ANTH 58 - Sustainable Cities**  
Instructor: Ogden  
Trends suggest that the human experience is increasingly an urban one, with urbanization transforming social and ecological worlds at a rapid pace. With these changes comes a growing urgency to enhance the sustainability of cities. In this course we compare past and present forms of urbanization, with an emphasis on understanding specific challenges and solutions to sustainability. In doing so, we think about how urbanization is embedded in broader socio-ecological processes that transform rural lands and livelihoods.  
Distributive: Dist:INT or SOC

**ANTH 60 - Psychological Anthropology**  
This course examines key concepts and core debates within the field of psychological anthropology. The course draws on the historical roots of the field as well as contemporary theoretical developments in psychological anthropology. Central questions addressed in the course include: What is the relationship of the individual to culture? How do categories of the person, self, thought, and emotions vary cross-culturally? What do extraordinary psychological experiences reveal about fundamental human processes?  
Distributive: WCult:CI

**ANTH 62 - Health and Disease in Evolutionary Perspective**  
This course explores how principles from biological anthropology can provide insight into human health and disease. This course also asks students to critically analyze prevailing medical concepts of 'normal' physiology and illness. We adopt a comparative approach to consider the evolutionary, physiological, and cultural bases of human health and disease by examining case studies in the following areas: i) human diet and nutrition, ii) demography, life history, and reproduction, and iii) pathogens, parasites, and immunity.  
Distributive: Dist:SCI

**ANTH 64 - Evolution of Birth, Pregnancy, and Babies**  
Instructor: Thayer  
This course examines human universals and cross-cultural variation in pregnancy, birth, and infant development. In the first section, principles of life history theory and human reproductive ecology are introduced, and students will learn how assisted birth evolved in humans. In the second section, students will analyze expectations and systems of pregnancy, birth, and infant care in a cross-cultural context. Throughout the course, students will evaluate current controversies surrounding medical models of childbirth, breastfeeding, and co-sleeping.  
Distributive: Dist:SCI

**ANTH 65 - Conservation and Development**  
The terms 'conservation' and 'development' are ubiquitous, but there is little agreement on their meanings or their efficacy. We study how these processes impact 'traditional' cultures and how indigenous peoples have responded. Development and conservation have cultures of their own so we will examine their worldviews, discourses, and practices. We explore how anthropological methods can be used to analyze resource conflicts, understand the limits of dominant approaches, and think constructively about alternatives.  
Distributive: Dist:INT or SOC; WCult:CI

**ANTH 66 - Human Biological Variation**  
How do human populations adapt to their local environments? What is more important for influencing human variation—genes or the environment? In this course you will learn about patterns of modern human biological variation as well as research methods employed by biological anthropologists to study these patterns. You will also learn important skills for all anthropologists, including hypothesis generation, study design, how to write a grant, and how to be an effective reviewer.  
Distributive: Dist:SCI

**ANTH 70 - Experiencing Human Origins and Evolution**  
This course will examine current evidence for human origins and evolution, with a particular emphasis on South Africa. Students will learn and experience firsthand how fossils, archaeological sites, and living model systems are used collectively to reconstruct and interpret the path and circumstances by which we became human. A course extension in South Africa will be offered to enable direct experience with the sites, organisms, and challenges discussed in class.  
Distributive: SCI

**ANTH 72 - Ethnicity and Nationalism**  
Instructor: Kan  
Ethnic politics and nationalist movements dominated the 20th century and continue to play a major role in shaping the world today. This course explores these important subjects through an anthropological lens by examining such topics as the symbols, rituals and myths of ethnic and national identity; nationalism, ethnic minorities and the state; and homeland and diaspora nationalism. Ethnographic case studies range from indigenous nationalism to that of the newly independent states of Eastern and Central Europe.  
Distributive: Dist:INT or SOC; WCult:CI
ANTH 73 - Main Currents in Anthropology

Instructor: Craig

This course examines the theoretical concerns that define anthropology as a discipline. Readings by major theorists past and present address the nature and extent of human social and cultural variation, the relationship of institutional arrangements in society to systems of meaning, the material and moral determinants of human social life, the dynamics of change within and between cultures, and the place of power in maintaining and transforming meaningfully constituted human orders.

Distributive: SOC

ANTH 74 - The Human Spectrum

Instructor: Dominy

Contemporary foraging peoples are often viewed as ecological relicts and therefore instructive models for understanding the selective pressures that gave rise to the human condition. The objective of this course is to critically evaluate this enduring concept by examining the spectrum of human interactions with tropical habitats. We will also evaluate the basis of recent popular trends - the paleo diet, raw foodism, barefoot running, parent-child co-sleeping - that emphasize the advantages of a "natural" pre-agricultural lifestyle.

Distributive: Dist:SCI

ANTH 75 - Ecology, Culture, and Environmental Change

Instructor: Wang

Anthropology's interest in the interactions of humans and their environments has been long-standing, especially in archaeology. In this seminar we will consider changing conceptual frameworks for understanding human-environmental interactions and long-standing debates about nature vs. culture, materialist vs. symbolic approaches, the development of cultural ecology, and the new "ecologies." We will draw on the research of archaeologists, biological and cultural anthropologists, geographers, and historians.

Distributive: SOC

ANTH 76 - The Evolution of Upright Walking

Instructor: DeSilva

This is an advanced course designed to explore in-depth both the historical and current understandings of human bipedalism. This course is reading-intensive, with an average of 5 primary journal papers assigned per meeting. We will investigate hypotheses for why bipedalism evolved, the form of locomotion bipedalism evolved from, and the fossil evidence for early hominin bipedality in the australopithecines and australopithecines.

Distributive: Dist:SCI

ANTH 85 - Reading Course

Students who would like to pursue intensive, supervised study in some particular aspect of anthropology may do so with the agreement of an appropriate advisor. The student and advisor will work out together a suitable topic, procedure, and product of the study.

Prerequisite: Written permission of the department faculty member who will be advising the student.

ANTH 87 - Research Course

Students with an interest in research in anthropology and a particular problem they would like to investigate may do so with the agreement of an appropriate advisor. The student and advisor will work out together a suitable topic, procedure, and product of the study.

Prerequisite: Written permission of the department faculty member who will be advising the student.

ANTH 88 - Anthropology Honors

Open only to honors seniors by arrangement with the Chair. Admission to the honors program shall be by formal written proposal only. Consult with Chair concerning the details.

Students are awarded one course credit for successful completion of this course at the end of the second term of work. Students register for ANTH 088 and receive a grade of “ON” (ongoing) at the end of the term. Students do not register for the subsequent term. A final grade will replace the “ON” at the end of the subsequent term at which time the coursework must be completed.

Prerequisite: Written permission of the department faculty member who will be advising the student.

Art History

Chair: Ada Cohen

Professors A. Cohen, M. K. Coffey; Associate Professors, A. Hockley, N. M. Camerlenghi, K. Hornstein, S. L. Kim, C. Elias; Assistant Professors, E. A. Kassler-Taub; Senior Lecturers, M. E. Heck, S. E. Kangas, K. O’Rourke

Consult the Department Administrator for further information.

To view Art History courses, click here (p. 118).

Requirements for the Major

Twelve courses as follows:

Prerequisite: Two courses from ARTH 1, ARTH 2, ARTH 4 or ARTH 5

Requirements:

- One Studio Art course;
• Four Art History courses, each from a different area:
  • Pre-Modern (ancient and medieval art to 1400)
  • Early-Modern Europe (1400-1800)
  • Non-Western
  • Modern and Contemporary (1800 to the present);
• One advanced seminar in Art History (ARTH 80 through ARTH 83);
• ARTH 89, which will serve as the Major Culminating Experience;
• Three other Art History courses numbered 10 or higher except 89's, 91 or 92. (A Classical Studies course [CLST 20, CLST 21, CLST 22, CLST 24, CLST 25, or CLST 26] may be substituted for one of the three other Art History courses.)

N.B.: ARTH 1, ARTH 2, ARTH 4 and ARTH 5 may serve only as major prerequisite courses.

Requirements for the Modified Major

Students wishing to declare a modified major must submit a short description of the proposed modification and a completed Modified Major Worksheet (available outside the Department office or on our website) to the Chair. If the faculty approves the proposal, the worksheet, and rationale statement must be filed with the Department Administrator, and additionally you must email the rationale statement to the Registrar. The courses making up a modified major should constitute an intellectually coherent whole. The Department will consider proposals for modifying the Art History major only if they are presented before the end of the student's senior fall term. Students formally elect the modified major by submitting a proposed plan of courses through DartWorks, which the Department Administrator will check against the submitted worksheet. Once your plan is approved it will be sent to the Registrar.

Thirteen courses as follows:

Prerequisite: Two courses from ARTH 1, ARTH 2, ARTH 4 or ARTH 5

Requirements:
• Three courses in three out of four categories:
  • Pre-Modern (ancient and medieval art to 1400)
  • Early-Modern Europe (1400-1800)
  • Non-Western
  • Modern and Contemporary (1800 to the present);
• ARTH 89 (constituting the Major Culminating Experience);
• Two other Art History courses numbered 10 or higher except 89's, 91 or 92;
• Either a seminar (ARTH 80–ARTH 83) or an Honors Thesis course (ARTH 91–ARTH 92).

N.B.: ARTH 1, ARTH 2, ARTH 4 and ARTH 5 may serve only as major prerequisite courses.

N.B.: ARTH 1, ARTH 2, ARTH 4 and ARTH 5 may serve only as major prerequisite courses.

Requirements for the Minor

Six courses as follows:

Prerequisite: One or two of ARTH 1, ARTH 2, ARTH 4 or ARTH 5

Requirements: Four courses, one in each of four categories:
• Pre-Modern (ancient and medieval art to 1400)
• Early-Modern Europe (1400-1800)
• Non-Western
• Modern and Contemporary (1800 to the present)

If only one prerequisite is taken, any additional Art History course may be taken as the sixth course. An Art History seminar (ARTH 80-ARTH 83) is not required, but is strongly encouraged. N.B.: ARTH 1, ARTH 2, ARTH 4 and ARTH 5 may serve only as prerequisite courses.

Students planning an Art History minor must complete a Minor Worksheet (available outside the Department office or on our website) which needs to be completed and then signed by the Chair, and submitted to the Department Administrator. Students formally elect the minor by submitting a proposed plan of courses through DartWorks, which the Department Administrator will check against the submitted worksheet. Once your plan is approved it will go to the Registrar.
For more information about how to submit a plan through DartWorks, please consult the student guide located on the Registrar's website.

https://www.dartmouth.edu/~reg/guides/dartworks/declare_major_or_minor.html

Minor track in East Asian Art History
This minor provides an introduction to the art, architecture, and visual cultures of East Asia.

Six courses as follows:

Requirements:

- One of the following pan-East Asian courses:
  - ARTH 38.01: Sacred Architecture of Asia
  - ARTH 38.03: East Meets West

- Any five courses from the following list:
  - ARTH 32.01: 2000 Years of Korean Painting
  - ARTH 32.11: Korean Art
  - ARTH 32.21: Sacred Art and Architecture of Japan
  - ARTH 32.22: The Japanese Painting Tradition
  - ARTH 38.02: Contemporary Art of Asia
  - ARTH 62.20: Modern and Contemporary Korean Art
  - ARTH 62.30: Japanese Prints
  - ARTH 62.81: Women, Gender and Art in East Asia
  - ARTH 82.01: Arts and Culture of Korea’s Last Dynasty
  - ARTH 82.02: The Camera in Nineteenth-Century Asia

Students are encouraged, but not required, to include one of two advanced seminars among the five courses they select to complete their minor:

- ARTH 82.01: Arts and Culture of Korea’s Last Dynasty
- ARTH 82.02: The Camera in Nineteenth-Century Asia

Minor track in Architectural History and Urbanism
For students interested in the history and theory of architecture and urbanism across geographies and time periods.

Six courses as follows:

Requirements:

- Introductory survey
  - ARTH 4: Introduction to World Architecture

- Any five of the following classes complete the minor:
  - ARTH 17.01: Rome: The Eternal City
  - ARTH 17.02: Cities of the Biblical World, An Archaeological Approach
  - ARTH 17.05: Castles, Cloisters, Cathedrals
  - ARTH 26.02: Foreign Study II
  - ARTH 27.01: The Ideal City
  - ARTH 28.09: Art on the Move: Renaissance Italy and the Islamic World
  - ARTH 38.01: Sacred Architecture of Asia
  - ARTH 47.02: Modern Architecture
  - ARTH 47.03: Contemporary Architecture
  - ARTH 61.71: Italian Renaissance Architecture
  - ARTH 62.71: Islamic Architecture
  - ARTH 80.02: Advanced Seminar: Domes

- Students are encouraged, but not required, to take an advanced seminar focused on architecture such as:
  - ARTH 80.02: Advanced Seminar: Domes

- Students are encouraged, but not required, to take SART 65: Architecture 1, though this course does count toward the six courses of the ARTH minor.

Minor track in Global Modern Art History
This minor provides an introduction to the art, architecture, and visual cultures of global modernities in their historical, geographical, and theoretical dimensions.

Six courses as follows:

Requirements:

- One of the following survey courses:
  - ARTH 2: Introduction to the History of Art II
  - ARTH 5: Introduction to Contemporary Art
Four of the following classes, divided between at least three different geographic areas of focus (Europe, Americas, Asia):

- ARTH 28.05: Art & Society in the Age of the Rococo
- ARTH 28.06: European Art in the Age of Revolution (1750-1850)
- ARTH 31.02: Art and Industry: The Visual and Material Culture of South Asia, 1800 to present
- ARTH 40.01: American Art and Identity
- ARTH 40.02: The American Century: Modern Art in the United States
- ARTH 40.03: Twentieth Century Art from Latin America
- ARTH 40.04: Mexicanidad: Constructing and Dismantling Mexican National Identity
- ARTH 41.01: Modernism and Modernity: Art in late nineteenth-century France
- ARTH 41.02: Twentieth Century Art in Europe, 1900-1945
- ARTH 41.03: European Art 1750-1850
- ARTH 47.01: Building America: An Architectural and Social History
- ARTH 47.02: Modern Architecture
- ARTH 48.02: Histories of Photography
- ARTH 48.03: The Arts of War
- ARTH 48.04: Women in Art
- ARTH 48.05: Satire: Art, Politics & Critique
- ARTH 62.20: Modern and Contemporary Korean Art
- ARTH 62.30: Japanese Prints
- ARTH 62.81: Women, Gender and Art in East Asia
- ARTH 63.01: Mexican Muralism
- ARTH 63.12: When Media Were New
- ARTH 63.13: Bad Art!

- One advanced modern seminar in art history (in the range of ARTH 80 and higher) or ARTH 89 (Senior Seminar in Art Historical Theory and Method)

Students planning an Art History minor must complete the relevant Minor Worksheet (available outside the Department office or on our website) which needs to be completed and then signed by the Chair, and submitted to the Department Administrator. Students formally elect the minor by submitting a proposed plan of courses through DartWorks, which the Department Administrator will check against the submitted worksheet. Once your plan is approved it will go to the Registrar.

For more information about how to submit a plan through DartWorks, please consult the student guide located on the Registrar's website.

https://www.dartmouth.edu/%7Ereg/guides/dartworks/declare_major_or_minor.html

**Advanced Placement**

The Department does not award course credit to students who have taken the high school Advanced Placement course in Art History. However, an Art History major or minor who has achieved a grade of 5 in this course may substitute two appropriate mid-level Art History courses for the two introductory-level courses (ARTH 1, ARTH 2, ARTH 4 or ARTH 5) required as prerequisites for the major or minor. The substitute courses must be chosen in consultation with a faculty advisor.

**Honors Program**

To be eligible for the Honors Program, a student must have achieved by the end of the junior year a 3.2 general College average and a 3.4 average in all Art History courses. A candidate for admission to the Honors Program must, in either the spring preceding or in the fall of the senior year, consult with a potential faculty adviser and submit a written and in-person presentation to the whole Art History faculty of the proposed Honors project. Admission or non-admission to the Honors Program will subsequently be determined by a vote of the faculty. The Program will consist of an advanced project of study under ARTH 91-ARTH 92 (only one of which may be counted as part of the major, under "other"), taken during two consecutive terms in the senior year.

Students are strongly encouraged to initiate discussion with an appropriate faculty adviser as early as possible in the junior year.

The Art History Department oversees funds intended to underwrite research for honors projects in the Department. For information see the Department Administrator.

**Foreign Study Program**

In order that students may have an opportunity to study art history in direct contact with original works of art, the Department conducts a Foreign Study Program during the spring term. Based in Rome, one of Europe’s richest
artistic centers, with a continuous evolution from antiquity to the present, the program examines the monuments of the city, their creators, their patrons, and their various audiences.

This program is open to all students. There are two prerequisites:

There are two prerequisites for the Art History FSP, Italian 1 (or its equivalent) and Art History 1. In addition, Art History 2 is highly recommended. While in Rome, students are enrolled in ARTH 10 and ARTH 11 (both of which may be counted toward the major and/or minor, but only one of which fulfills a departmental distributive), and ARTH 12, which is the equivalent of ITAL 2. Interested students should contact Professors Hornstein, or Camerlenghi as early as possible in their academic careers.

Transfer Credit

Transfer credits will be granted only to majors, modified majors, and minors in the Art History Department. Majors are limited to two transfer credits only one of which can fulfill a departmental distributive requirement. Modified majors and minors are limited to one transfer credit, which cannot fulfill a departmental distributive requirement. The Art History Department does not grant transfer credit for courses on topics related to those we teach. Applications for transfer credits must meet all of the requirements stipulated by the Registrar. Before requesting transfer credit, students must submit a copy of the syllabus of the course they intend to take to the Chair of the Art History Department.

ARTH - Art History Courses

To view Art History requirements, click here (p. 114).

ARTH 1 - Bodies and Buildings: Introduction to the History of Art in the Ancient World and the Middle Ages

Instructor: Cohen, Kangas

A study of basic problems and new directions in the understanding of architecture, sculpture, and painting in Europe and the Middle East from the earliest times to the end of the Middle Ages. The course introduces the student to the language of art criticism and method, as well as the relationships of the arts to each other and to their historical contexts. Special attention is given to the human body and visual narrative.

Distributive: Dist:ART; WCult:W

ARTH 2 - Introduction to the History of Art II

A survey of art and architecture from 1500 to the present. The course introduces the student to the basic terminology of the arts, the language of stylistic criticism, and the relationship of the arts to each other and to their historical background. ARTH 1 is not prerequisite to ARTH 2. Priority for enrollment is given to first- and second-year students.

Distributive: Dist:ART; WCult:W

ARTH 4 - Introduction to World Architecture

A comparative study of several architectural styles past and present, Western and Non-Western. Consideration will be given to a variety of building types ranging from the monumental to the residential.

Distributive: ART

ARTH 5 - Introduction to Contemporary Art

Instructor: Coffey, Elias

This course introduces students to contemporary art practices from the late 1960s up to the present. It is focused thematically around key concepts such as: the body, identity, postmodernism, institutional critique, site-specificity, memory, ecology, and ethics, among others. Class periods will be organized around key-works/figures with attention paid to understanding not only different trends and currents in global contemporary art practice, but also the different kinds of scholarship we can use to unpack, situate, or contest its claims. Moving across a wide range of media and techniques/formats of display, this course will offer students critical tools for analyzing a range of visual media including: painting, video, film, photography, performance, and land art.

Distributive: Dist:ART; WCult:W

ARTH 7 - Art History First Year Seminars

Instructor: Kangas, O'Rourke

Consult Special Listings

ARTH 10.01 - The Art of Ancient Egypt and the Ancient Near East

Instructor: Kangas

A study of architecture, sculpture, and painting in the Near East and Egypt from prehistory through approximately the first millennium B.C.E. The course aims at a parallel treatment of the Egyptian and various Near Eastern civilizations, especially those that developed in or around modern Turkey, Israel, and Iraq. Special attention will be paid to the cultural contacts among different ancient
centers at key moments in history, as conjured up by individual monuments.

Open to all classes.

May be taken in partial fulfillment of the major in Classical Archaeology and the major in Classical Studies.

Distributive: Dist:ART; WCult:NW

ARTH 10.02 - Art and Archaeology of Israel

This course will examine the archeology of Israel from prehistory through the early Roman period, with emphasis on cultural interactions and their material manifestations. Ancient Israel was a crossroads where many different cultures met. Home to Canaanites and Israelites, Israel successively experienced the cultural and artistic impact of Egyptians, Assyrians, Greeks, and Romans, who either invaded this region or came into contact with it through a variety of more peaceful processes.

Cross-Listed as: JWST 41

Distributive: Dist:ART; WCult:NW

ARTH 10.03 - Art in Egypt

Instructor: Kangas

Mummies, pyramids, curses and death, these are some of the images and associations that one conjures up with the mention of ancient Egypt today. Ancient Egyptian civilization is an endlessly fascinating field for intellectual inquiry and debate, the subject of spectacular museum displays, as well as a source of inspiration for various reenactments in literature and film. The modern attraction for Egypt has its origins in Napoleon’s invasion of the country in 1798, and later, and more profoundly, in the 1922 discovery of the tomb of king Tutankhamen in the Valley of the Kings. However, already in the ancient world, the Greeks and Romans expressed fascination for the monuments and the civilization of Egypt, primarily as they experienced its material culture through travel and other cultural exchanges. In this course we will study key works of art and architecture in ancient Egypt as well as explore some important instances in the subsequent reception of Egyptian monuments, history, and mythology.

Open to all classes.

May be taken in partial fulfillment of the major in Classical Languages and Literatures, the major in Classical Archaeology, and the major in Classical Studies.

Distributive: Dist:ART; WCult:W

ARTH 11.02 - Alexander to Cleopatra: Art in an Unsettled World

Instructor: Cohen

This course examines the principal works of architecture, sculpture, and painting in the Greek world, from the fourth through the first centuries BCE., a period of significant political and art-historical change and innovation. In the reign of Alexander the Great, Greek culture expanded beyond its borders to encompass Egypt and Western Asia. Particular emphasis will be given to important discoveries associated with the court of Alexander, his father Philip II, and some of his best-known successors, including the last one: Cleopatra of Egypt.

ARTH 12.01 - Roman Art

Instructor: Cohen

This course explores key works of architecture, sculpture, painting, and decorative arts in the Roman world from the sixth century B.C.E. through the third century C.E. Such issues as the influence of the Etruscan and Greek traditions, stylistic change and its determinants, and the role of art in Roman society will be considered in relation to both the great public monuments of Republican and Imperial Rome and works made for private individuals.

Gothic Art and Architecture"
ARTH 13 - Early Christian Art
A study of painting, sculpture, architecture, and the minor arts in the Mediterranean from the third through seventh centuries. Emphasis will be placed on the role of art in late antique society, especially in the process of transformation from the classical to the medieval world.
Distributive: Dist:ART; WCult:W

ARTH 13.01 - Early Medieval Art
Though the 8th-11th centuries are often erroneously known as the "Dark Ages," this course will explore the vibrant life in the emerging northern Europe of Charlemagne and William the Conqueror. Evolving methods of societal organization and identity through religion, nationhood and the cult of personality will be examined through the art and architecture of the period.
Distributive: Dist:ART; WCult:W

ARTH 14 - Byzantine Art
A study of painting, sculpture, architecture, and the minor arts of Byzantium from the period of Iconoclasm to the fall of Constantinople. Emphasis will be placed on the use of art during this period to express the beliefs and goals of the church and the state to satisfy private devotional needs.
Distributive: Dist:ART; WCult:W

ARTH 15.01 - Gothic Art and Architecture
Characterized by rising urbanism, a growing middle class and developed political states, the Gothic period combines elements of medieval and early modern worlds. This course will explore the influence of new patrons and institutions on the era’s art, the art’s reflection of the period’s religious and political reality, and the popularity of new, more secular subject matter. The works covered will encompass both massive public projects, such as Chartres Cathedral, and the personal, private taste found on ivory mirror backs.
Distributive: Dist:ART; WCult:W

ARTH 17.01 - Rome: The Eternal City
Instructor: Camerlenghi
No city in the world has an urban fabric so rich in historical layers as Rome. This course surveys the topography and urbanism of Rome from its origins to the present. While the immediate goal will be to study the city of Rome, the larger goal will be to provide a conceptual framework with which to consider the power and function of cities.
Distributive: Dist:ART; WCult:W

ARTH 17.02 - Cities of the Biblical World, An Archaeological Approach
The city has always been the center for social and economic activity in all complex societies, as well as a locus for innovation and change. This is no less true for the ancient cities of the biblical world, whose rich, multicultural environments not only shaped but also often transformed the identities of their inhabitants. The subject of this course will be the investigation of those key places where Jewish and later Christian identity was formulated and where their early history unfolded. We’ll explore and pay special attention to those cosmopolitan centers where Jews interacted with other ancient peoples of the Middle East and eastern Mediterranean.
Cross-Listed as: JWST 41.03
Distributive: Dist:ART; WCult:NW

ARTH 17.05 - Castles, Cloisters, Cathedrals
Instructor: Camerlenghi
This course explores the origins and development of architecture during the Middle Ages (roughly from the fourth to the fifteenth century). While generally arranged chronologically, some classes will focus on themes such as the role of architects and patrons, the influence of pilgrims and monks as well as the cross-cultural impact of Islamic and Byzantine architecture on the buildings of medieval Western Europe. Not only will we explore the people and institutions that commissioned the great buildings of the Middle Ages, but also we will explore how these structures were built. Finally, as an instance of experiential learning, we will take some initial steps toward reconstructing a medieval building on the Dartmouth campus in order to understand the fundamental principles informing medieval buildings.
Distributive: Dist:ART; WCult:W

ARTH 17.06 - The Arts of the Middle Ages
Instructor: Camerlenghi
This course explores the origins and development of medieval art and architecture across Western Europe. While arranged as a chronological survey, the lectures will focus on the role of artists, architects and patrons, the influence of pilgrimage and monasticism, and the cross-cultural impact of Islamic and Byzantine influences on the arts of medieval Europe.
Distributive: Dist:ART; WCult:W

ARTH 18.01 - Ancient Art and Myth
Instructor: Kangas
Rich and suspenseful, ancient mythology holds a central place in our imagination. One thinks of myths as a series of definitive plots, but art reveals all sorts of interpretive disagreements. Ancient art did not just illustrate
mythology but participated in its construction. This course considers the notions of myth and visual story-telling from a theoretical perspective; briefly explores mythological narrative in the ancient Near East and Egypt; and focuses on myth-making in Greece and Rome.

Distributive: Dist:ART; WCult:W

**ARTH 20.01 - Michelangelo**

Michelangelo Buonarroti, called "Il Divino" in his own lifetime, was the dominant practitioner of painting, sculpture and architecture in sixteenth-century Italy. This course will focus on Michelangelo’s most famous creations in the light of recent restorations and new scholarship. Finally, we will look at the intersection of his visual works with his biography: how these works relate to Michelangelo’s creation of his own image, chiefly through the works of his biographers Vasari and Condivi.

Distributive: Dist:ART; WCult:W

**ARTH 20.02 - Lifelikeness, and Artifice, the High Renaissance and Mannerism**

A study of the major monuments of painting and sculpture in Italy during the sixteenth century. The course surveys the idealism of the High Renaissance (beginning with Leonardo da Vinci, Michelangelo, and Giorgione) and then traces the development of Mannerism and Maniera in the work of such artists as Pontormo, Bronzino, and Tintoretto. The art of the reformers at the end of the century is also considered, especially as it looks forward to the Baroque.

Distributive: Dist:ART; WCult:W

**ARTH 20.03 - Southern Baroque Art**

A survey of painting and sculpture from 1600 to 1700. This course focuses upon the art of Caravaggio and his followers in Italy and Spain; the Carracci and the development of seventeenth century classicism; Bernini and the High Baroque; and the art of French visitors to Italy. Special emphasis is given to the relation that the painting and sculpture of this time has to seventeenth century poetry, theatre, science and the aims of the reformed Catholic Church.

Distributive: Dist:ART; WCult:W

**ARTH 21.01 - Northern Renaissance Art**

A survey of the major monuments of painting, sculpture, and the graphic arts in the Low Countries, Germany, and France, from the late fourteenth century through the Reformation. Content as well as style is examined in the light of its relation to social transformation and the cultural evolution of the period. Emphasis is placed on the work of such significant personages as the van Eycks, van der Weyden, Bosch, Bruegel, Grünewald, Dürer, and Hol-bein.

Distributive: Dist:ART; WCult:W

**ARTH 21.02 - Northern Baroque Art**

Painting in Flanders and Holland from 1600 to 1700. This course considers the naturalistic tradition from Caravaggio's northern followers to the Haarlem School of Hals; the art of Rembrandt; the classical genre of Vermeer and the Delft School; Rubens and the Flemish High Baroque. The growth of specialized genres of painting and the differing aesthetic aims of Dutch and Flemish painters are viewed against the background of the Protestant reformation and the rise of a mercantile society.

Distributive: Dist:ART; WCult:W

**ARTH 21.03 - Rembrandt**

Rembrandt van Rijn was Holland’s preeminent artist in the seventeenth century. This course considers Rembrandt’s extraordinary achievements as an etcher, focusing especially on the artist’s highly imaginative and experimental use of the etching medium, the broad range of subjects and expressive power of the prints, as well as the functions the prints served in Rembrandt’s time. All our classes will make use of the Hood Museum's superb collection of Rembrandt prints, thus allowing students to do first-hand study of the artist's original works.

**ARTH 22.01 - Velazquez and the Spanish Baroque**

Diego Velasquez, sometimes called the prince of painters, was Spain’s preeminent artist in the seventeenth century. This course considers his achievements as a painter, his aspirations as a courtier and gentleman, and his remarkably privileged association with his patron, King Philip IV. The class will study in depth many of Velasquez's key works and examine how he challenged previous notions about the nature of representation, and simultaneously sought to demonstrate the "nobility" of painting.

Distributive: Dist:ART; WCult:W

**ARTH 26.01 - Foreign Study I**

Instructor: Horstein

The History of Art in Rome. This course entails the on-site examination of mosaics, paintings and sculptures of particular art historical interest. The approach will be thematic, with emphasis falling on major issues within the History of Art. These may include narrative, iconography, social history, gender, perception, patronage, and formal analysis.

Distributive: Dist:ART

**ARTH 26.02 - Foreign Study II**

Instructor: Horstein

Architecture and Urbanism in Rome. Rome offers a broad array of building types, architectural styles and urban spaces. This course introduces students to the principles of architectural analysis, while simultaneously plotting out a history of Roman architecture and urbanism. The course
casting, modeling, and carving became a testing ground for and stucco into weightless clouds. The labor of chiseling, marble was transformed into flesh, bronze into fluid fabric, between illusion and reality. Through bold experiments, Early modern sculptors like Michelangelo and Bernini pushed the boundaries of their craft, blurring the line with rare books. The course requires no prior knowledge of art history, architecture, or the Renaissance. Throughout, we will question how architects exploited the basic infrastructure of daily life – roads, gates, walls, squares, and even sewage systems – to perfect their environments. How were those principles used to promote civic virtue and good governance or to reinforce social hierarchies and absolutist rule? We will make frequent visits to the Hood Museum of Art to explore new tenses and moods. Throughout, students engage in practical exercises geared to improve their oral and written expression, as well as enhance their vocabularies. All classes will be conducted in Italian. Note that this course may not be counted as part of the Art History major.

Distributive: Dist:ART

ARTH 27.03 - Building Boom: Architecture and Urbanism in Early Modern Italy
Instructor: Kassler-Taub

Across early modern Italy, architects and engineers broke ground on construction projects that transformed cities like Rome, Florence, Venice, and Naples into bustling urban centers. New building technologies and design innovations yielded monumental palaces, soaring devotional spaces, and vast streets and squares. Italy’s building boom was fueled by the consolidation of political and economic power in the hands of ambitious patrons for whom architecture was a vehicle of self-fashioning. This course explores Italian architecture and urbanism of the Renaissance and Baroque periods, with a focus on the socio-political and cultural dynamics that shaped the theory and practice of building between the fifteenth through eighteenth centuries. Subjects to be considered include: classicism and the memory of antiquity; treatises and the architectural book; building as propaganda; stylistic experimentation and architectural ornament; villa culture; and designs for the stage. The course will include visits to the Rauner Library and the Hood Museum of Art.

Distributive: Dist:ART; WCult:W

ARTH 28.01 - The Global Renaissance
Instructor: Kassler-Taub

The movement to globalize the field of art history has dramatically changed how we understand the phenomenon traditionally called “the Renaissance.” This course gives students an opportunity to question how the European canon of Renaissance ‘masterworks’ was constructed, and what it overlooks. By expanding beyond the Italian centers of Florence, Rome, and Venice, we will take a global approach to the visual and architectural culture of the fifteenth and sixteenth centuries. Each week will consider a region typically marginalized in Renaissance studies – including the Americas, Africa, and Asia – to explore how trends in art making and architectural design evolved across distant geographies. How do the dominant narratives of exploration, discovery, and invention intersect with the histories of colonialism, slavery, and
economic upheaval? How did diverse local practices, identities, and voices leave their mark on the period? Throughout, we will consider topics such as: the exchange of models, techniques, and materials between foreign workshops; theories of circulation and exchange; and the relationship between so-called artistic ‘centers’ and their peripheries.

Distributive: Dist:INT or ART; WCult:W

**ARTH 28.02 - Going for Baroque**

This course surveys the principal monuments of painting, sculpture and printmaking produced in Europe during the seventeenth century, the age of the Baroque. Considered within the broader political, religious, and social context of the period, these artistic achievements will be discussed thematically, according to types of subject matter and in relation to issues that were of particular interest to artists, such as naturalism and the engagement of the viewer, the passage of time, and the transforming power of light. The course will explore the ways religious and political institutions exploited the arts for their own propagandistic ends, and examine as well how images of the period satisfied patrons’ interests in the familiar and exotic, optical illusions, and spectacle and drama. Among the artists whose works will be discussed are Caravaggio, Bernini, Artemisia Gentileschi, Velazquez, Rembrandt, Vermeer, Jan Steen and Poussin.

Distributive: Dist:ART; WCult:W

**ARTH 28.03 - Vision and Reality: The Art of Northern Europe in the Fifteenth Century**

The fifteenth century in northern Europe is an amalgam of influences that form our idea of the modern. The concerns and styles of the Late Gothic are present, mixing with new forms of technology, such as printing or the perfection of oil painting techniques. The weakened grip of the Church contributes to the emerging emphasis on the individual that characterizes Early Modern art. The fifteenth century sees the rise of secular art, the concept of objective realism, the development of panel painting, the commercialization of prints, and the beginnings of independent portraiture. My goal is to give you the knowledge and skills that will enable you to understand and appreciate the nuances and complexity in fifteenth-century artworks wherever you encounter them. In addition to the mastery of scholarly materials, you will work on reading visual culture, practicing your writing skills and perfecting your oral communication. Our focus will be on reception, context and invention.

Distributive: Dist:ART

**ARTH 28.04 - Reform and Response in Sixteenth-century Northern Europe**

In 1517 Martin Luther nailed the 95 Theses to the door of the castle chapel in Wittenberg. That act was the culmination of decades of frustration with an established Church that, to many believers, had lost its way. What followed was a European debate for the very souls of men. The Reformation brought into question the assumptions by which most Europeans had lived—that the Church’s teachings, personal good actions, and Christ’s sacrifice could insure their salvation. Using the printing press and artworks, both sides presented their positions in propagandistic language that could be both bombastic and subtle. We will look at this central event in the shaping of free will, and how it played out in the art created in Northern Europe at that time.

Distributive: Dist:ART; WCult:W

**ARTH 28.05 - Art & Society in the Age of the Rococo**

Instructor: O'Rourke

This course explores the transformative period in European art and culture between 1700 and 1800, when the playful decadence of the Rococo gave way to the morally purified art of Neoclassicism. We will study the “high arts” of painting, sculpture & architecture in the context of an expanded realm of visual culture, including interior design and decorative objects, clothing and fashion, hairstyles and luxury goods, the art market and the print trade. We will investigate the political and social uses of art at the time paying special attention to alternative discourses of power spoken through fashion, gesture and influence. We will examine court culture, the new public sphere, the growth of the middle class, the Grand Tour, the expanded role of women in the 18th century as patrons and artists, and the socio-political changes leading up to the French Revolution. Artists include Hogarth, Watteau, Boucher, Kauffman, Reynolds, Adam, Greuze, among others.

Distributive: Dist:ART; WCult:W

**ARTH 28.06 - European Art in the Age of Revolution (1750-1850)**

Instructor: Hornstein

Visual arts were transformed in the second half of the eighteenth and first half of the nineteenth century by dramatic upheavals in social, political and cultural life. In addition to taking account of stylistic movements such as Rococo, Neo-classicism and Romanticism, we will devote our attention to relationships between artistic and social change, political and institutional pressures upon artists, changing ideas of art’s purpose and audience, and artists’ shift to direct engagement with modern life.

Distributive: Dist:ART; WCult:W

**ARTH 28.07 - Art Writing and Writers on Art**

Instructor: O'Rourke

This course will explore the various modes of writing on or about art and artists from the early modern to the modern period in Europe. Focusing primarily on writers and texts
from France, Germany and Italy, we will consider the social and cultural roles of the artist and art works as they were formulated, investigated and reinterpreted throughout the 18th and 19th centuries. The classical revival and the beginnings of “modern” art history, the growth of the periodical press and the explosion of art (and literary) criticism, the growing public sphere for art, the biographical tendency in historical writing, and Romantic fantasies of the artist all worked to create a rich body of literary or quasi-literary writings on art and artists at this time.

Many of the texts we will read were translated into other languages soon after their initial appearance, testifying to the international readership and scope of these writers and their works. The figure of the artist as developed in the 18th and 19th centuries only became more prominent in our cultural consciousness in the 20th century as Romanticism’s ideas of genius and the vanguard (often mad) artist and the separate sphere of the visual arts became entrenched in discourses of modernism. Exploring writings on art at this critical juncture in the beginnings of modernism can shed light on our continuing notions of what art is and has been, and on how art and artists have been described, understood, and fantasized about for centuries.

Cross-Listed as: COLT 61.01
Distributive: Dist:ART; WCult:W

**ARTH 28.08 - Italian Art from Renaissance to Baroque: Crisis and Invention**

Instructor: Kassler-Taub

In studios and workshops across early modern Italy, artists developed new forms, styles, and ideas that transformed how they responded to the changing world around them. With a focus on the years between 1400 and 1700, this course will consider the cultural dynamics that gave the arts new meaning and urgency and fueled innovations in Italian cities large and small. Taking a chronological approach to the Renaissance and Baroque periods, we will consider topics such as: self-fashioning and identity; the role of art in moments of ideological or political crisis; the dialogue between art and technology; and visual drama and deception. We will explore a wide range of objects, from the private pages of sketchbooks to painted ceilings, and from colossal sculptures to viral prints. Throughout, we will question how artists like Leonardo da Vinci, Michelangelo, Titian, Caravaggio, and Bernini manipulated diverse materials and theorized the process of invention. The course will include frequent visits to the Hood Museum of Art and the Rauner Special Collections Library.

Distributive: Dist:ART; WCult:W

**ARTH 28.09 - Art on the Move: Renaissance Italy and the Islamic World**

Instructor: Kassler-Taub

During the Renaissance, innovations in art and architecture constantly moved back and forth between Italy and the Islamic world. New design models, styles of ornamentation, and even building methods became part of a shared artistic and architectural language that crossed cultural and geographical boundaries in the Mediterranean. This introductory course will focus on exchanges between Italian centers such as Venice, Florence, and Pisa and the Mamluk Sultanate, the Safavid Empire, and the Ottoman Empire between the fall of Constantinople (1453) and the Battle of Lepanto (1571). We will consider a wide range of case studies, including: the role of the traveling painter and architect in foreign courts; the trade in luxury goods such as textiles and ceramics; common trends in villa and garden culture; and the re-appropriation of objects and monuments. How did such a rich history of cross-cultural contact emerge against a backdrop of military strife, political rivalry, and religious tension? To answer this question, we will explore contemporary theories of artistic mobility, hybridity, and influence. The course will include an excursion to the Isabella Stewart Gardner Museum in Boston, as well as visits to the Rauner Special Collections Library and the Hood Museum of Art.

Cross-Listed as: MES 18.02
Distributive: Dist:ART; WCult:W

**ARTH 31.01 - Arts of South Asia**

This course is an introduction to the arts of South Asia from the grandeur of the Taj Mahal to Gandhi’s spinning wheel. From the thirteenth century, and the advent of Islam in India, through the Mughal dynasty and British colonial rule to Independence in 1947, we will examine courtly art and architecture alongside popular arts and material culture. No background in Asian or South Asian art is necessary.

Distributive: Dist:ART; WCult:NW

**ARTH 31.02 - Art and Industry: The Visual and Material Culture of South Asia, 1800 to present**

This course examines the relationship between art and industry through the visual and material culture of South Asia from 1800 to the present. The first third of the course will focus on the colonial discourse of art and economy, and the fear that industrial production would destroy indigenous craft and design. This instigated a colonial system of education, and the creation of museums, that taught both the European ‘fine arts’ of painting and sculpture, and the Indian ‘applied arts’ of craft and design in practice and in objects. The second third of the course will attend to specific media as physical and intellectual conduits in the economy. We will discuss the explosive
effect of the technologies of print and photography in colonial control and nationalist agitation. We will also examine the materiality of textiles, clay, wood, metal, plastic, paper, and food in their production, exhibition display, and cultural and political context. The last third of the course will focus on modern artists’ considerations of art and craft, the formation of national museums, and the contemporary art market. In parallel to the attention to visual and material objects, we will read selections from primary sources on art and industry, such as George C. Birdwood’s *Industrial Arts of India* (1880), The Journal of Indian Art and Industry, Mahatma Gandhi’s *Hind Swaraj* (1909), and K. G. Subrahmanyan’s *Eclecticism* (1992).

Distributive: Dist:INT or ART; WCult:NW

**ARTH 32.01 - Two Thousand Years of Korean Painting**  
**Instructor:** Kim  
This course explores Korea’s long painting tradition from the earliest petroglyphs to the 21st century. We will look at Goguryeo mural paintings, Goryeo Buddhist Paintings, and Joseon landscapes, portraits, genre, and folk paintings, as well as Korea’s modern and contemporary art, including North Korean propaganda posters. We will ask questions like: How have Korean paintings reflected changes in religious beliefs, political ideology, and material culture? What quintessential aesthetic values (if any) are found in Korean painting? How much does contemporary “global” Korean painting contain the legacy of the Korean painting tradition?

No previous knowledge of Korean art is required.

Distributive: Dist:ART; WCult:NW

**ARTH 32.11 - Introduction to Korean Art**  
**Instructor:** Kim  
This course will introduce the arts and culture of Korea from the prehistoric period through the twentieth century. Significant examples of painting, ceramics, sculpture, and architecture will be closely examined in their political, social, and cultural contexts. We will explore how East Asian motifs were incorporated into traditional Korean art. We will see how Korea struggled to find its artistic identity within the international context during the 20th century.

Cross-Listed as: ASCL 62.07

Distributive: Dist:ART; WCult:NW

**ARTH 32.21 - Sacred Art and Architecture of Japan**  
**Instructor:** Hockley  
This course examines Shinto and Buddhist architectural, sculptural, painting and print traditions from the prehistoric to the modern era. The primary emphasis will be on the relationship of these arts to their doctrinal sources and the ritual, social, and political contexts in which they were created and utilized.

Distributive: Dist:ART; WCult:NW

**ARTH 32.22 - The Japanese Painting Tradition**  
**Instructor:** Hockley  
This course provides a comprehensive introduction to the Japanese painting tradition. Surveying a broad range of themes, formats, and styles and exploring the relationship between indigenous sensibilities and the traditions Japanese artists borrowed from continental Asia and the West, it defines the unique aesthetic experience offered by Japanese sacred and secular painting. Its focus on patronage and studio practice emphasizes the social, political, and cultural processes that underscored important developments in the painting tradition.

**ARTH 33.01 - African Art (Survey)**  
**Instructor:** Hockley  
This course is designed to introduce undergraduate students to African art in the twentieth century. It charts the development and dimensions of artistic expressions and cultural production in Africa from the colonial period to the contemporary. By looking at various case studies comparatively, the course explores the intersection of developments in artistic practice and identity, and cultural production, and sweeping changes in the political, social and economic spheres in Africa. It considers the effects of colonialism, postcolonial conditions, neocolonialism, economic liberalism, and globalization on cultural production and artistic practice. Following a chronological format, it will attempt to cover the different sub-regions of the continent but draws substantial amount of examples from sub-Saharan Africa.

**ARTH 38.01 - Sacred Architecture of Asia**  
**Instructor:** Hockley  
This course provides an introduction to the sacred architecture of Asia and the Middle East through a series of case studies that include Buddhist monasteries, Hindu temples, Mosques, Daoist and Confucian temples, Shinto shrines, funerary architecture, and the sacred dimensions of political authority as manifested in palaces, city plans, and mausolea. The pan-Asianic nature and long historical development of Buddhism, Hinduism, and Islam affords opportunities to examine national and sectarian adaptations of architectural practices. This course has no prerequisites and assumes no prior experience with Asian religions or architectural studies.

Cross-Listed as: ASCL 70.01

Distributive: Dist:INT or ART; WCult:NW

**ARTH 38.02 - Contemporary Arts of Asia**  
This course examines the contemporary art of Asia from a variety of historical, cultural, and critical perspectives. Lectures, readings and discussions range across broad themes such as identity, globalization, trans-nationalism, and feminism and include examination of both traditional
and new media. Case studies examine the work of both well-established and emerging young artists. This course is designed to equip students with the critical skills necessary to appreciate, discuss, and analyze contemporary Asian art.

**Distributive:** Dist:ART; WCult:NW

**ARTH 38.03 - East Meets West**

**Instructor:** Kim

This class explores the interaction between the cultures of East Asia and the West from as early as c. 200 BCE to the early 20th century. The course consists largely of four themes: the Silk Road and the Arts, the Pottery Stories, the Jesuits and the Arts, and Asian Arts in Europe. The class starts with the Silk Road, the world’s first great superhighway that from ancient times linked East Asia to the Mediterranean World across Central Asia, and examines how ideas, art, and religions traveled and were transformed through their journey. The second theme, the Porcelain stories, conveys how aesthetics, technology, designs and motifs were transmitted from East to West and vice versa. We will ask questions, such as: Why was porcelain so desirable? Where did porcelain rank in the hierarchy of art forms and materials in Asia and Europe? How much did a piece of porcelain cost at any moment in time? Why did Japan and Korea have “the Pottery War” and what was the significance of that war in East Asia (and Europe)? The third theme, the Jesuits and the Arts, looks at the hybrid blend of two or more traditions and the artistic productions that arose from those blends. We also will examine together the paintings of Asian and European artists, the paintings of European artists on Asian themes with a traditional Asian medium, and the work of Asian painters’ on European subject matter with a European medium. The last theme, Asian art in Europe, scrutinizes the Western reception of Asian subjects, motifs, designs, and aesthetic values, and their appropriation for artistic productions. European interpretation (or imitation) of Chinese arts, so called Chinoiserie, and the Japanese influence on European art, known as Japonism, will be closely examined. Through lectures, readings, and films, we will explore the historical and artistic links between East and West and some selected art associated with those routes. This course requires no previous experience, but is intended for those who like interdisciplinary approaches to art and culture. No previous coursework is required.

Cross-Listed as: ASCL 70.02

**Distributive:** Dist:ART; WCult:NW

**ARTH 38.04 - Food & Art: A Global History**

**Instructor:** Camerlenghi

"This is a global history of food’s relation to art. We will examine food and art across multiple geographies and times, and methodologies. Topics will include cookbooks and menus; utensils and ceramics; plastics and lunchboxes; migrations of plants, dishes, and cooks; religious fasts and feasts; gardens, still-lives, the appetite; Pop art of food; activist food art; food labels and ephemera; terroir and the taste of place."

**Distributive:** Dist:INT or ART

**ARTH 40.01 - American Art and Identity**

**Instructor:** Coffey

Where is America? What makes America distinct? How have images of America helped to define and challenge our ideas about who “we” are? In this course we study how paintings, photographs, monuments, and other forms of visual culture have shaped the America we know today. We will trace the emergence of U.S.-American art and identity from the point of Encounter, through Independence, and up to the Centennial Celebrations of Columbus’ “discovery of America” in 1893 through discreet comparisons with developments in Mexico, and Canada. The course is organized chronologically around a series of themes that foreground the intersection between class, race, and nation-building. Students will learn how to identify and analyze the key genres and styles of 19th century American art, including portraiture, photography, ledger drawing, monuments, and landscape, history, and genre painting. They will consider how character and class are constructed through the portrait; how the claims of settler nationalism are naturalized through landscape; how anxieties about racial emancipation, immigration, and gender advancement are managed through images of the “people;” how war both consolidated and radically challenged prevailing conceptions of American identity; and how minoritized populations challenged the dominant construction of “America” throughout this period. There are no pre-requisites for this course. It has been designed as an introduction to the field of American art history as well as to the discipline of Art History more generally. First year students and non-majors are welcome.

**Distributive:** Dist:ART; WCult:CI

**ARTH 40.02 - The American Century: Modern Art in the United States**

**Instructor:** Coffey

What made the 20th century the “American Century”? In this course we will examine how painting, sculpture, photography, public murals, and monuments contributed to the political and economic rise and cultural dominance of the United States in the 20th century. Find out: how artists from the US and Mexico contributed to the search for the “Americanness” of American art; how African-Americans, Native Americans, Latino/as, women, and queer Americans have contributed to and challenged the image of America they created; how artists participated in the Cold War; and in turn, how the Cultural Cold War spawned a radical counter-culture and a new “culture war” over identity in the 1990s. In this course, students will develop a
have intervened in international avant-garde discourses by developing “ex-centric” strategies or ethics of avant-gardism. Anthropophagism—geometric abstraction, kinecism, and neo-concretismo—modernismo, muralism, social realism, surrealism, and genres of Latin and Latin@ American art: such as, Students will learn about the major figures, movements, and themes—over the course of the 20th century; learn how to visually analyze and write about works of art executed in different media and for different viewing contexts; learn how to locate a specific artist’s handling of a subject, theme, or motif within a particular socio-political context and be able to compare and contrast different artistic expressions of a subject, theme, or motif across time, develop a more nuanced understanding of social movements in the 20th century United States, develop a greater appreciation for the contributions of minoritized groups to American art, culture, and history; question received notions of “American” culture and identity; and engage in productive discussion about the strategic value, situated meaning, and intersectionality of nation, class, race, ethnicity, gender, sexuality, and identity. This course has no pre-requisites and requires no prior knowledge of Art History.

Distributive: Dist:ART; WCult:CI

**ARTH 40.03 - Twentieth Century Art from Latin America**

Instructor: Coffey

This course is an introductory survey of art produced by artists living in Latin and Latin@ America during the 20th century. We will approach this topic through case studies of the major figures and movements in the cosmopolitan centers of Argentina, Brazil, Chile, Colombia, Cuba, Ecuador, Mexico, Peru, Puerto Rico, Uruguay, and the U. S. We will treat Latin America as a geopolitical construct rather than an essential unity. Throughout the course we will be attentive to the distinctive character of the different national histories, populations, and cultural traditions that have shaped artistic production in this region while still acknowledging points of convergence, influence, and shared conviction among them. We will examine how national identity, racial formation, class difference, gender inequality, political struggle, and state violence have been addressed by artists from the region and in diaspora. Students will learn about the major figures, movements, and genres of Latin and Latin@ American art: such as, modernismo, muralism, social realism, surrealism, geometric abstraction, kinecism, and neo-concretismo, Latin American pop and conceptual art, installation, performance, and exhibition practices. They will develop an appreciation for the racialized modernisms of many Latin American countries and an ability to compare and contrast different iterations of hybridity from Mexican Indigenismo, to afro-Cubanismo, to Brazilian Anthropophagism (cannibalism), among others. They will develop an appreciation for how artists from Latin America have intervened in international avant-garde discourses by developing “ex-centric” strategies or ethics of avant-gardism. And they will explore the critical and reciprocal relationship between Latin American modernisms and state modernization and authoritarianism. This course has no pre-requisites and is accessible to both majors and non-majors. Students need no prior knowledge about Art History or Latin American art and history.

Cross-Listed as: LACS 78
Distributive: Dist:ART; WCult:CI

**ARTH 40.04 - Mexicanidad: Constructing and Dismantling Mexican National Identity**

Instructor: Coffey

Since the Mexican Revolution (1910-17), artists, intellectuals, and state-actors have endeavored to define and re-define Mexican national identity, or what is known as Mexicanidad. From the 1920s and 30s, when an emphasis was placed on Mexico’s rural and indigenous populations to the 1940s and 50s, when greater attention was given to Mexican modernization, through the years after 1968, when artists and intellectuals endeavored to reveal the repressive nature of Mexicanidad and its role in propagandizing an authoritarian state and ruling party. In this course we will place artists like José Clemente Orozco and Frida Kahlo within a broader visual cultural context that includes not only mural art and painting, but also sculpture, architecture, printmaking, photography, installation, film, and performance. We will cover art produced in Mexico from the turn of the 20th century through the “boom” years of the 1990s, with a focus on issues of race, class, gender, and sexuality throughout. Students will learn about the history of Mexican art, enhance skills in the visual analysis of modern and contemporary art, refine their ability to conduct original research and write effectively, and develop an understanding of how visual culture participates in the construction of national identity as well as how art can critique and queer that construction. This course has no pre-requisites and requires no prior knowledge of Art History or Mexican art and history.

Cross-Listed as: LACS 30.09
Distributive: Dist:ART; WCult:CI

**ARTH 40.05 - Latinx Art & Activist Print Media**

Since the late 1960s, printmaking and print cultures have been at the center of constructing identity discourses for Latinx communities in the United States. Through the analysis of prints, political graphics, comics, zines, and ephemera, we will study how the printed image negotiates relations of power. From posters of United Farm Worker boycotts and broadsides of the Young Lords to contemporary prints that narrate stories of migration and belonging, we will delve into graphic media and consider notions of authorship (collective/individual), activism, display, dissemination, consumption, collecting, and technology. Students will learn to think critically and empathetically about how these collective modes of making foreground the politics of representation: what we see, how we see, who gets to control our image, and how
can printed multiples challenge those narratives. Students will enhance their skills in visual analysis and writing, gain experience in collaborative printmaking, and refine their ability to conduct original research. No prerequisites or prior knowledge of Art History and Latinx Studies is required for the course.

Cross-Listed as: LATS 012
Distributive: Dist:ART; WCult:CI

**ARTH 41.01 - Modernism and Modernity: Art in late nineteenth-century France**

Instructor: Hornstein

From 1848 to 1914, French art and the modern city of Paris dominated the international art scene. This course explores the radical visual culture of the period in painting, sculpture, prints and photography, from the realism of Courbet and Manet to the abstraction of Seurat and Cézanne. We will focus on how new technologies, political and social revolutions, and exhibition culture influenced the work of Cassatt, Degas, Monet, Renoir, Van Gogh and Rodin, among others.

Distributive: Dist:ART; WCult:W

**ARTH 41.02 - Twentieth Century Art in Europe, 1900-1945**

Instructor: Hornstein

The rapid changes of the first half of the twentieth century inspired artisitic avant-gardes in France, Germany, Italy and Russia. We will examine “avant-garde” artistic practice as a cultural phenomenon, studying individual artists and their associated movements (Cubism, Futurism, Constructivism, Dada, Surrealism) through themes such as artistic responses to mass culture; new forms of technology; representations of sexual, racial, and class identity; and the relationship between art, nationalism, war and revolution.

Cross-Listed as: Formerly ARTH 16.22
Distributive: Dist:ART; WCult:W

**ARTH 41.03 - European Art 1750-1850**

European culture was transformed during the period 1750-1850. The absolutist monarchy established by Louis XIV would end with the traumatic rupture of the French Revolution. Napoleon redrew the map of Europe. The aristocracies that had ruled the West for a millennium, withered as the bourgeoisie and working classes struggled for control. The optimism of the Enlightenment slowly soured into the brooding inwardness of Romantic melancholia. The rise of mass industrial production and consumption would be accompanied by waves of technological and social change that irrevocably altered daily life. European powers pursued global dominance through colonial expansion with renewed vigor and brutality. This course examines these epochal changes through the lens of European cultural production, covering key artistic movements such as the Rococo, Neoclassicism, Romanticism, and Realism. We will closely analyze major works of art and visual culture alongside primary, historical texts of the period. These will be supplemented with recent scholarship that will help situate the works under investigation within the rich and complex social and intellectual milieu in which they were produced.

Distributive: Dist:ART; WCult:W

**ARTH 41.04 - European Art: 1850-1900**

This course will survey the history of European art the second half of the nineteenth century in a variety of media: painting, sculpture, print media, architecture and design. This is a rich and fascinating period of art-making as well as cultural and technological transformation during which political instability, industrialization, colonialism, and the growth of popular culture had an enormous impact on the production, style, and presentation of art. Old systems of patronage and institutional control over artists dissolved, leaving them to experiment with how to give form to “modernity,” and how to address a widening public audience for their art. Lectures and readings will shift between broad themes in 19th-century art coupled with in-depth examination of singular works, the goal being to strike a balance between close attention to art’s formal means and an account of what its chosen subject matter may have meant, to the artists themselves and to their public.

Distributive: Dist:ART; WCult:W

**ARTH 42.01 - Unmaking History: Contemporary Art in the Middle East**

Instructor: Elias

This course focuses primarily on the work of contemporary artists who make work in or about the so-called Middle East. It includes recent works by artists from nations as diverse as Algeria, Iran, Israel, Lebanon, Morocco, Syria, Turkey and the UAE. One of the main objectives of the course is to look at art practices that attempt to deepen our understanding of the varied cultures, ethnicities and societies that are found in this part of the world. The geographic focus of the course—mostly the Muslim nations of the Arabian peninsula and North Africa—is not meant to perpetuate the assumptions about this region as a monolithic geopolitical entity, nor to blindly label its production according to existing ethnic, religious or national categories. Against media stereotypes of the region, the artists studied in this course have made work that function as a critical platform for rethinking traditional identity formations and extending the space of cultural encounter across borders (territorial, political, linguistic). In many cases these artists may not be living and working in their country of birth but their ethnicity, religion or
citzenship continues to inform both their own sense of identity and the terms of their art practice. Some of the topics to be discussed include: artistic responses to the Arab-Israeli conflict, representations of everyday life in times of war, the movement and obstruction of people, goods and information across borders, the rise of new art markets in the Middle East, the politics of gender and sexuality in the Arab world, and the use of archival documents to rethink the meaning of evidence, truth and testimony.

Distributive: Dist:ART; WCult:NW

ARTH 47.01 - Building America: An Architectural and Social History

This course draws upon recent scholarship in anthropology, archaeology, material culture, social history and architectural history in its review of five centuries of American architecture. Course lectures not only emphasize America's principal architects and their designs, but also summarize the social and cultural forces that shaped the country's built landscape.

Cross-Listed as: HIST 034
Distributive: Dist:ART; WCult:W

ARTH 47.02 - Modern Architecture

Instructor: Heck

Architectural historians disagree about the origins of the modern era. For many, “modern” suggests principally the built works of the twentieth century. Others find the great projects of the nineteenth-century industrial revolution a more suitable place to begin. Still others—as will we—push the beginnings of “modern” architectural thought and practice back to the late eighteenth century. In this way we place architectural transformation in the context of the great changes taking place in the political, artistic, social and intellectual life of the period. This course approaches architecture as a cultural product and investigates the relationship between buildings, the ideas embodied in buildings and the cultures that designed them. We will chart the history of modern design from the Age of Enlightenment to the present.

Distributive: Dist:ART; WCult:W

ARTH 47.03 - Contemporary Architecture

Instructor: Heck

A survey of the history of architecture, around the world, from 1970 to the present. Lectures track architectural movements from the end of Late Modernism in the 1970s to the computer-driven designs currently under construction. We will pay close attention to the changing technologies and cultural values that have shaped the last thirty years of architectural design.

Distributive: Dist:ART

ARTH 48.02 - Histories of Photography

Instructor: Hornstein

This course introduces students to the history of photography from its beginnings in the 1830s to the present day. In addition to studying key photographers and pivotal moments within the medium’s development as an art form, we also examine the ways that photography’s status as a seemingly transparent form of documentary knowledge has shaped our lived experience. Seminal theoretical texts will introduce students to the complex and rewarding task of visually analyzing photographs.

Distributive: Dist:ART; WCult:W

ARTH 48.03 - The Arts of War

Walt Whitman said of the American Civil War: “the real war will never get in the books.” This course will raise core questions about how war is remembered and represented through text, performance, and visual culture. Our questions will be anchored in concrete case studies but will also raise far-ranging philosophical, ethical, and historical questions that examine instances of war in relation to the aesthetics of war.

Cross-Listed as: THEA 10.24
Distributive: Dist:INT or ART

ARTH 48.04 - Women in Art

This course will explore the complex and varied roles of women in the arts: as artists, patrons, “muses,” and cultural critics. We will examine the structural conditions of art making in the academy and the studio, the market and the exhibition. We will investigate gendered notions of genius, creativity and originality, including the status of women artists as “exceptional.” Looking also at the female nude in Western art and feminist art in post-modernism, we will analyze the roles that femininity and masculinity play in modernism. With a focus mostly on the 18th-20th c., major figures include Artemisia Gentileschi and Judith Leyster, Mme de Pompadour, Elisabeth Vigée-LeBrun, Mary Cassatt, Berthe Morisot, Frida Kahlo, Barbara Kruger and Cindy Sherman, among others.

Distributive: Dist:ART; WCult:W

ARTH 48.05 - Satire: Art, Politics & Critique

Instructor: O'Rourke

Satire has been used since antiquity as a powerful form of political, social and cultural critique. With humor, sarcasm, and often biting criticism, satire goes beyond pure comedy to speak with a moral voice. The targets of satire range from the world of fashion and the everyday to that of politics and high culture. We will examine case studies of satirical production, from the 18th century through the late 20th century, from the darkly comic prints of Hogarth and Daumier, to the overtly humorous and/or subversive
gazes of Duchamp and Dada, Warhol and Pop Art, to the satire of gender roles and modern capitalism in Postmodernism. We will pay particular attention to the role of satire in modern art as it employed irony, parody, ridicule and exaggeration to attack social mores, political figures and the art world status quo. We will also explore the use of satire in film and TV, from the darkly comic (Charlie Chaplin) to the ridiculous (Stephen Colbert). This course hopes to come to terms with the broad range and appeal of satire in the visual arts.

Distributive: Dist:ART; WCult:W

ARTH 48.06 - Borderlands Art & Theory

Instructor:

This seminar traces the developments of contemporary art practice in the U.S.-Mexico borderlands, and subsequently expands beyond this physical location to include artworks that reflect on living in between cultures, races, and languages. Students will develop a toolkit for analyzing the way borders shape culture and identity (race, gender, sexuality, class, religion, and ethnicity) in transnational points of contact. With an emphasis on printmaking, performance, photography, and film, the course will dwell on borders that respond to paradigms of fear and desire, contagion and containment, utopia and dystopia. Students will enhance their skills in visual analysis and writing, and refine their ability to conduct original research. No prerequisites or prior knowledge of Art History and Latinx Studies is required for the course.

Distributive: Dist:ART; WCult:CI

ARTH 48.07 - Michelangelo's Modernism

In 1837 Eugène Delacroix named Michelangelo Buonarroti the “father of modern art.” What led the great 19th century Romantic painter and critic to identify the Florentine sculptor, painter, architect, and poet as the origin of the modern school? Declared “divine,” during his lifetime, he functioned through five centuries of cultural production. Throughout the course we will consider why he came to embody the tension between the demands of tradition and innovation like no other artist. Each week we will closely investigate artworks in dialogue with primary sources in English translation. Secondary texts selected from the superb scholarly literature on Michelangelo and his afterlife will be used to supplement primary materials. Throughout the course we will consider the idea of Michelangelo and the Michelangesque functioned through five centuries of cultural production.

Distributive: Dist:ART; WCult:W

ARTH 48.08 - The Photographic Medium

The invention of the photograph radically changed the way we experience the world. The selfie and Instagram are but two of the most recent ways in which photographic technology has become ubiquitous in our everyday lives. This course traces the evolution of the photograph from pre-photographic forms, such as the diorama to its current digital apotheosis. We will focus on how the medium evolved in concert with changing social conditions that shaped, and were shaped in turn, by its evolution. A wide range of practices will be considered, from documentary photographs to fine art. Major figures in photo history will be discussed alongside developments in photographic technology and their impact on photographic imagery in both fine art and visual culture more broadly (advertising, science, journalism). Throughout we will explore photography as a ‘thick’ medium, one inextricably bound up with social and theoretical concerns. Students will exit having a broad knowledge of the historical benchmarks and aesthetic theories of photography, as well as the ability to describe and analyze images in light of photographic technique.

Distributive: Dist:ART; WCult:W

ARTH 61.71 - Italian Renaissance Architecture

Instructor: Camerlenghi

This course focuses on buildings constructed in Italy between 1420 and 1580. During this time, the Italian peninsula was a hotbed of revolutionary ideas about how architecture could shape and be shaped by the human will. The Renaissance saw the emergence of a new type of architecture, which took its cue from the needs, activities, and aspirations of people who defined themselves as “modern.” The chronologically presented material is interspersed with classes dedicated to the broad themes of the course (humanism, the inspirational role of ancient and medieval buildings, living conditions and styles, the rising profession of the architect, etc.). Lectures and readings will focus on the major thinkers, designers, and patrons of the period as well as on the economic, political, and religious forces that were at play in the formation of such ambitious and beautiful buildings.

Distributive: Dist:ART; WCult:W

ARTH 62.20 - Modern and Contemporary Korean Art

Instructor: Kim

This course examines the art and culture of Korea from the late nineteenth century through the twentieth century. During this period Korea experienced the fall of its 500-year-long dynasty, annexation to Japan, the Korean war, division into two Koreas, and internationalization/globalization. The class will explore how visual art, including paintings, photographs, posters,
ceramics, and film, reflected and expressed the political, socio-economic, and cultural changes and concerns of each period, in both South and North Korea.

Cross-Listed as: ASCL 62.08
Distributive: Dist:ART; WCult:NW

**ARTH 62.30 - Japanese Prints**
Instructor: Hockley

A survey of the Japanese print tradition from its inception in the seventeenth century through modern prints in the early twentieth century, this course emphasizes the relationship between prints and the political, social, and cultural milieu in which they circulated. The curriculum includes applications of recent critiques and theoretical approaches from fields as diverse as sexuality and gender studies, mass culture and media studies, aesthetics of popular arts, and the sociology of consumption.

Cross-Listed as: ASCL 62.12
Distributive: Dist:ART; WCult:NW

**ARTH 62.71 - Islamic Architecture**
Instructor: Camerlenghi

This course examines the architecture of Islamic cultures from the seventh-century rise of the Umayyad dynasty to the modern centers of Dubai and Doha. By studying the historical contexts within which Islamic architecture developed, we will consider major themes, chronological developments and regional variations in both religious and secular architecture. Additionally, by examining instances of cross-cultural influence, we will explore pivotal interactions between Islamic and non-Islamic architectural traditions.

Cross-Listed as: MES 18.03
Distributive: Dist:ART; WCult:NW

**ARTH 62.81 - Women, Gender, and Art in East Asia**
Instructor: Kim

This course will focus on women as the subjects, the creators, and the patrons of art in China, Korea, and Japan from the 16th century to the present. It will be organized chronologically, culturally, and thematically. This will involve an exploration of powerful matrons of art and their aspirations, a historical survey of women artists and their artistic contributions, and an examination of the religious and secular images of women and its limitations. The course will also look at contemporary artists and investigate their artistic discourses, messages, and experimentations. Extensive attention will be given to the creation, modification, and persistence of these images throughout history, due to various social, economical, psychological, and intellectual conditions. This course will develop students’ thinking skills in the history of art and improve their ability to conduct research and communicate both orally and in writing within the discipline.

This course requires no previous coursework or experience, but is intended for those who like interdisciplinary approaches to art and culture.

Cross-Listed as: ASCL 62.13
Distributive: Dist:ART; WCult:NW

**ARTH 63.01 - Mexican Muralism**
Instructor: Coffey

This course provides an introduction to Mexican Muralism by focusing on the “Three Greats”: Diego Rivera, José Clemente Orozco, and David Alfaro Siqueiros. We will study major works by each artist through in-class discussion as well as by placing different scholarly interpretations in dialog. Students will learn how to visually analyze and interpret mural art. In addition to considering muralism and its relationship to the Mexican Revolution and the post-revolutionary reconstruction of the state and society, we will also consider class and the politics of labor, gender and the politics of the body, sexual identity and the politics of desire, and race and the politics of nationalism in Mexico and the United States in from the 1920s and 30s through the 1960s. The course places special emphasis on José Clemente Orozco’s *Epic of American Civilization* through term-long student research projects as well as an exploration of the historical reception of the mural over time. This course has no pre-requisites and is open to students of all levels with or without prior experience in Art History.

Cross-Listed as: LACS 48
Distributive: Dist:ART; WCult:CI

**ARTH 63.12 - When Media Were New**
Instructor: Hornstein

This survey of different forms of modern reproductive visual media provides a historical perspective on contemporary habits of media consumption. In addition to focusing visual technologies that emerged over the past two hundred years (lithography, photography, film and video) we will also consider earlier developments such as printing cultures in early modern Europe to historicize the relationship between reproducibility, visual culture, and society.

Distributive: Dist:ART; WCult:W

**ARTH 63.13 - Bad Art!**
Instructor: Hornstein

What are the criteria for judging art’s merits? Who gets to decide? This course examines the problem of aesthetic hierarchies in terms of the histories of their making and unmaking. How do they get constructed, defended, and
tipped? What are the stakes of categorizing some forms of art making as outside of “good taste”? What does “high” art really mean? This class will survey key moments in modern art history that reveal charged instances where particular forms of art were deemed beyond the pale or simply not art. What are the value judgments that take place in order for art to be deemed “bad” or “good”? We will examine these questions through the historical lens of the eighteenth to twentieth centuries, since this was a period that witnessed the democratization of art as we know it today. At the end of the course, we will reflect on the situation of contemporary art in light of the historical and theoretical questions that we have posed over the course of the term.

Topics to be considered: the history of art criticism, the fledgling power of the abstract entity called “the public” in terms of art’s reception; modern art and anti-aesthetic tendencies, the mundane and ugly as terms that modern artists elevated in order to distance themselves from middlebrow, bourgeois taste, and the predicament of discerning art’s value today.

Distributive: Dist:ART; WCult:W

ARTH 63.71 - Art & Money
Instructor: Elias

This course will cast a critical eye on the commercial mechanisms of the contemporary art world encompassing auction houses, private galleries, museums, art schools, art fairs, biennales and magazines. How is commercial value produced in the art market, and what does it have to do with the critical or symbolic value assigned to artworks in the art world more generally? In addressing this question we will examine the changing function of artistic production within a knowledge or experience-based economy. At the same time, this course will also offer students a critical framework for analyzing the display, marketing and consumption of artworks in a global economy.

Distributive: Dist:ART

ARTH 63.72 - Aesthetics of the Digital
Instructor: Elias

This course confronts one of the most urgent and elusive problems of our day: the relationship of aesthetics to the rise of digital media. Drawing on a range of critical texts and artistic practices, we will consider how fundamental aesthetic categories such as materiality and form are transformed through the radical shift from a work-oriented to a medium-oriented conception of art and reality. In broader terms, this module explores the rapidly mutable audio-visual environments/interfaces of the digital age and their impact on social relations and cultural production. We will also examine the tensions between intimacy and distance, distraction and attention, and passivity and participation that characterize image consumption within the routines of contemporary technological culture.

Finally, this module offers a historical and political framework for understanding contemporary art’s seeming disavowal of the digital and the expanding non-stop processes of twenty-first-century capitalism that underpin it. At the same time, we will assess some of emancipatory possibilities opened by the accessibility and affordability of digital cameras, editing software and mobile devices. As well as making use of the interpretive methods of art history, this module will introduce students to tools drawn from social semiotics, media studies, anthropology, visual culture, cybernetics and design philosophy.

Distributive: Dist:INT or ART

ARTH 63.73 - Art in the Age of Climate Change
Instructor: Elias

Since the advent of industrial capitalism, humans have released 555 petagrams of carbon dioxide into the atmosphere, increasing CO2 concentrations to a level not seen for at least 800,000 years. The long-term consequences of these atmospheric changes remain unknown, but there is already strong evidence that the Earth is rapidly moving into a less biologically diverse, less forested, much warmer, and probably wetter and stormier state. Research on climate change points to a particular irony: human actions have unprecedented impact on the environment, but this produces effects that are increasingly out of human control. Inside that conundrum lies another. Scientists have certain strategies to address urgent environmental challenges, but what of the arts and the humanities? What can practitioners in these fields, in dialogue with the sciences, offer in this moment of climatic disruption and political inaction? To what new modes of visualization does global warming give rise, and how do these aesthetic innovations allow us to live with and through environmental change? What ontological status can be assigned to various biological, geological, and meteorological ‘actors’ if human agency is no longer privileged?

In taking up these questions, this course recognizes that the manifold effects of climate change demand new structures of cross-disciplinary thinking and critical engagement. Accordingly, it draws on concepts and methods drawn from art history and critical theory as well as science and anthropology. As we will see, the field of contemporary art does not simply project forward to predicted catastrophic future scenarios. Rather, it foregrounds the unique capacities of humans to imagine scenarios or worlds that have not yet come into existence. What, in essence, can art help us imagine that science alone cannot? Through this line of enquiry, this course asks what it means to think through the possibilities and limits of our planet beyond a pessimistic orientation towards foreclosed futures.

Distributive: Dist:ART; WCult:W
ARTH 80.01 - Ideals of Physical Beauty: Gender and the Body in Ancient Art
Instructor: Cohen

Since the foundation of Art History as a discipline, Greek art has been admired for its emphasis on physical beauty. Greek culture articulated criteria of beauty for both sexes and created mythological personas exemplifying those ideals. This seminar studies Greek views on beauty and ugliness, as well as the links between beauty and (im)morality. It focuses on how artists went about depicting physicality and explores the connection between perceived beauty and pictorial style, often in comparison with other Mediterranean cultures. Contemporary critical frameworks and theoretical approaches to gender and representation will guide class discussions.

Open to sophomores, juniors, and seniors with instructor’s permission.
Distributive: Dist:ART; WCult:W

ARTH 80.02 - Advanced Seminar: Domes
Instructor: Camerlenghi

Domes have graced the skyline of human settlements for over three millennia. The seminar commences with a traditional typological survey of domes, progresses to explore the theoretical foundations that informed their construction, and concludes by examining the social, cultural, and religious factors favoring (or discouraging) their development and proliferation. We will focus especially, but not uniquely, on ancient and medieval domes. Historically, domes have covered a range of buildings: from kilns to tombs, from bell-towers to latrines; however, they most famously crowned places of worship, burial or power. We will ponder: What is a dome? Which qualities define their identities? How and why has the knowledge of dome construction been transferred across time and cultures? What are important methodological considerations to consider as we approach the study of domes?

Distributive: Dist:ART; WCult:W

ARTH 80.04 - Advanced Seminar: History of Museums and Collecting
Instructor: Camerlenghi

This course offers a close look at the history of museums and collecting from 16th century cabinets of curiosity to today’s large public museums. Attention will be given to the early history of museums and their theoretical and philosophical foundations, the emergence and guiding principles of public, academic, and donor museums, and recent developments in the museum world and the world of collecting. The course will include visits to museums and collections in Boston and other locations in the New England area.

Distributive: Dist:ART; WCult:W

ARTH 82.01 - Arts and Culture of Korea’s Last Dynasty
Instructor: Kim

This course provides an introduction to the arts and culture of the Joseon dynasty (1392-1910), which was founded on Confucianism. We will examine Confucian philosphy and how Confucian ideas shaped the social hierarchy, gender roles, and aesthetic values through exploration of the architecture of royal palaces and aristocratic houses, paintings both sacred and secular, ceramics, textiles and other crafts. Use of colors, symbolic motifs, and stories in the arts and cultures will be investigated. Understanding Korea’s final 500-year dynasty will deepen students’ comprehension of contemporary Korean culture as it manifests the legacy of Joseon Korea.

Cross-Listed as: ASCL 80.03
Distributive: Dist:INT or ART; WCult:NW

ARTH 82.02 - The Camera in Nineteenth-Century Asia
Instructor: Kim

This course examines the use of photography by colonial governments, anthropologists, commercial photographers, and tourists in nineteenth-century Asia. It also takes into account indigenous uses of photography that both conform with and react against Western uses of the medium. Consideration is also given to the diffusion of photographic images into other media including news publications, government documents, academic studies, travelogues, guidebooks, and museum displays.

ARTH 83.02 - Contemporary Art: Disaster, War and the Ethics of Witnessing
Instructor: Cohen

This seminar focuses on the relationship between lens-based media and moments of catastrophe in order to think creatively about how both operate pictorially. What constitutes the category of catastrophe—as opposed to crisis, war, etc.—and how does that category structure but also exceed photographic representation? We will look at photographs and films that bear witness to massacres, genocides and terrorist attacks. Some of the case studies include Auschwitz, Hiroshima, Apartheid South Africa, the Vietnam War, the Palestinian Nakba, the Cambodian Genocide and the Lebanese Civil War. We will also look at the role images play in documenting more recent events such as the Gulf War, the 9/11 terrorist attacks in New York, the 2011 earthquake in Fukushima, the Syrian Civil War and the European migrant crisis. Readings will take us through photographic history, critical theory, and art history. Our study will conclude in considering how artist themselves have theorized the place and purpose of photography and film in historical catastrophes. Underlying the arc of our study are three interrelated categories of questions. These concern: 1) the relationship of aesthetics to ethics and politics; 2) the relationship of those models of visibility and visibility to subaltern ways of understanding history 3) the ways in
which art relates to questions of alterity and agency, which is to say how art might speak to without speaking for the victims of catastrophe.

Distributive: Dist:ART

**ARTH 83.03 - Modern Art, Spectacle, and Strategies of Resistance**

Instructor: Hornstein

In this seminar, we will take a historical and theoretical approach to understanding the diverse sets of strategies that artists have employed to disrupt, contest, playfully oppose, and ironically challenge power, broadly construed. We will focus on nineteenth and twentieth-century (mostly European) artists who were committed to producing critical or counter-discursive art in moments of political tribulation.

Distributive: Dist:ART; WCult:W

**ARTH 83.05 - Advanced Seminar: Art and the Law**

This Advanced Seminar addresses legal issues that pertain to the sale, acquisition, display, ownership, and destruction of works of art. The topic is framed around two related questions: How does the special status of art, as a privileged sphere of creative expression, grant it different treatment under the law? What are some of the exemptions, protections, or obligations that are accorded to art that are not extended to other forms of personal property? The first part of the course will focus on case studies in which legal questions are entangled with ethical and political concerns: illicit international trade in looted art, repatriation claims, high-profile forgeries, and new guidelines for authentication. The second half looks at the legal framework that governs artists’ rights (including resale royalties, copyright, and freedom of expression) as well as the rules that structure transactions in the primary (e.g. artist-dealer contracts and handshake agreements) and secondary art markets. We will also analyze problems related to the representation of artists’ estates, the acquisition and de-accessioning of artworks by museums, and the tax codes associated with charitable contributions of works of art. Finally, the class considers how artists strategically make use of the unique affordances of the law and test what it is that artworks can do outside the circumscribed domain of the art world.

Distributive: Dist:ART

**ARTH 89 - Independent Study**

Independent Study is intended for advanced students who have demonstrated their ability to do independent research in art history and who wish to study some topic in greater depth than is possible in a regularly scheduled course or seminar. The Independent Study project should be preceded by at least one Art History course in an area related to the topic under consideration, and may even develop out of that course. A student interested in undertaking Independent Study must first submit a proposal to the faculty member with whom he or she wishes to study. Assuming agreement by that faculty member, the proposal will then be reviewed by the entire Art History faculty. Ordinarily, this must be done in the term immediately preceding the term in which the Independent Study course will be taken. The Independent Study course cannot be used to fulfill any of the requirements of the Art History major or minor.

**ARTH 89.01 - Senior Seminar in Art Historical Theory and Method**

Instructor: Elias

This seminar, the Department of Art History’s “culminating experience,” helps students to locate contemporary theories and methods for the analysis of art and visual culture within a critical historiography of the discipline. Rather than concentrating on objects, a period, or a nation/region, we instead focus on how scholars have approached writing about art. The goal is not to be comprehensive, but rather to touch on key issues and problems that continue to animate the practice of art history.

Distributive: Dist:ART

**ARTH 89.02 - Senior Seminar in Art Historical Theory and Method**

Instructor: Horstein

This seminar, the Department of Art History’s “culminating experience,” helps students to locate contemporary theories and methods for the analysis of art and visual culture within a critical historiography of the discipline. Rather than concentrating on objects, a period, or a nation/region, we instead focus on how scholars have approached writing about art. The goal is not to be comprehensive, but rather to touch on key issues and problems that continue to animate the practice of art history.

**ARTH 89.03 - Senior Seminar in Art Historical Theory and Method**

Instructor: Coffey

This seminar, the Department of Art History’s “culminating experience,” helps students to locate contemporary theories and methods for the analysis of art and visual culture within a critical historiography of the discipline. Rather than concentrating on objects, a period, or a nation/region, we instead focus on how scholars have approached writing about art. The goal is not to be comprehensive, but rather to touch on key issues and problems that continue to animate the practice of art history.

Distributive: Dist:ART
**ARTH 89.04 - Senior Seminar in Art Historical Theory and Method**

Instructor: Cohen

This seminar, the Department of Art History’s “culminating experience,” helps students to locate contemporary theories and methods for the analysis of art and visual culture within a critical historiography of the discipline. Rather than concentrating on objects, a period, or a nation/region, we instead focus on how scholars have approached writing about art. The goal is not to be comprehensive, but rather to touch on key issues and problems that continue to animate the practice of art history.

Distributive: Dist:ART

**ARTH 89.05 - Senior Seminar in Art Historical Theory and Method**

Instructor: Kassler-Taub

This seminar, the Department of Art History’s “culminating experience,” helps students to locate contemporary theories and methods for the analysis of art and visual culture within a critical historiography of the discipline. Rather than concentrating on objects, a period, or a nation/region, we instead focus on how scholars have approached writing about art. The goal is not to be comprehensive, but rather to touch on key issues and problems that continue to animate the practice of art history.

Distributive: Dist:ART

**ARTH 91 - Honors**

The first in a sequence of two courses devoted to independent research and the writing of a thesis or execution of a project under direction of a departmental adviser. Students admitted to and participating in the departmental honors program must take these courses in consecutive terms of the senior year.

Students are awarded one course credit for successful completion of this course upon completion of ARTH-092. Students register for ARTH-091 and receive a grade of “ON” (ongoing) at the end of the term. Students then register for ARTH-092 the subsequent term to complete the coursework. A final grade will replace the “ON” in ARTH-091 upon completion of ARTH-092.

Prerequisite: Consult the statement of the Art History Honors Program. Only one of these courses may be counted as part of the major in Art History.

**ARTH 92 - Honors II**

The second in a sequence of two courses devoted to independent research and the writing of a thesis or execution of a project under direction of a departmental adviser. Students admitted to and participating in the departmental honors program must take these courses in consecutive terms of the senior year.

Students are awarded one course credit for successful completion of this course. Students who have registered for ARTH-091 register for ARTH-092 to complete the coursework. A final grade will replace the “ON” for ARTH-091 upon completion of this course for a total of 2 credits for ARTH-091 and ARTH-092.

**Asian Societies, Cultures, and Languages**

**Chair:** Allen Hockley

**Professors:** P. K Crossley (History), D. E. Haynes (History), Y. Horiuchi (Government), T. C. Levin (Music), R. Ohnuma (Religion), C. S. Sneddon (Geography and Environmental Studies), J. Stanford (Linguistics), D. Washburn (ASCL, Film and Media Studies, and Comparative Literature);

**Associate Professors:** S. R. Craig (Anthropology), J. Dorsey (ASCL), S. J. Ericson (History), L. Gibbs (ASCL), A. F. Hockley (ASCL and Art History), S. L. Kim (ASCL and Art History), E. G. Miller (History), D. A. Peterson (Linguistics), G. Raz (Religion), S. Schmidt-Hori (ASCL), S. Suh (ASCL and History);

**Assistant Professors:** M. Xie (ASCL);

**Senior Lecturers:** Zenghong Chen (ASCL), M. Ishida (ASCL), A. Li (ASCL), I. W. Watanabe (ASCL), Lei Yan (ASCL);

**Lecturers:** S. Eom (ASCL)

To view Asian Societies, Cultures, and Languages Courses, click here, see below for an explanation for ASCL’s course number system.

- ASCL courses are numbered by category, not by their level of difficulty. None of the courses in the 50s, 60s and 70s have prerequisites.
- DS (Discipline Specific) courses for South and Southeast Asia are numbered in the 50s
- DS (Discipline Specific) courses for East Asia are numbered in the 60s
- IITD (Interdisciplinary, Interregional, Transnational, Diaspora) courses are numbered in the 70s.
- ASCL 10.01, 10.02, 10.03 and 11.04 may count as IITD courses
- Senior Seminars are numbered in the 80s
Asian Societies, Cultures, and Languages
Requirements for Majors & Minors

Major
• One introductory course chosen from ASCL 1: Thinking through Asia offerings
• Two language courses beyond the first-year level (or the equivalent)
• Three Interdisciplinary, Interregional, Transnational or Diaspora courses
• Three Discipline Specific courses
• One ASCL 80: Advanced Seminar (serves as the Culminating Experience)

Language Track Major
• One introductory course chosen from ASCL 1: Thinking through Asia offerings
• Five language courses beyond the first-year level (or the equivalent)
• Three Interdisciplinary, Interregional, Transnational or Diaspora courses and Discipline Specific courses (at least one course from each category is required)
• One ASCL 80: Advanced Seminar (serves as the Culminating Experience)

Minor
• One introductory course from among the ASCL 1: Thinking through Asia offerings
• Two Interdisciplinary, Interregional, Transnational or Diaspora courses
• Three Discipline Specific courses

Language Minor
• Six language courses beyond the first-year level

Modified Major
ASCL Modified Majors require seven ASCL courses combined with four from another program or department. Students wishing to pursue a Modified Major must submit a proposal to the ASCL Steering Committee that includes:
• Your list of the courses comprising your modified major. Your list must include
  • ASCL 1
  • ASCL 80-level course (Culminating Experience)
  • Selection of the remaining five ASCL courses that represent an equitable mix of DS (Discipline Specific) and IITD (Interdisciplinary, Interregional, Transnational, and Diaspora) courses
  • Four courses from the modifying department or program
  • Include the ORC descriptions of all the courses you plan to use for your modified major
  • A rationale for your modified major.
  • The rationale must demonstrate the intellectual coherence of the courses comprising your major. In other words, the courses you use to modify your major must compliment your ASCL courses. For example, if your ASCL courses focus on China (or East Asia more broadly), then so should the four courses you are using to modify the major. Post-Dartmouth career plans are not an acceptable rationale for the modified major.
  • Students should meet the ASCL Chair to discuss your course selection and rationale before you submit your proposal for review by the ASCL Steering Committee.

Honors Program
The ASCL Honors Program consists of a two-term, two-course sequence comprised of ASCL 90 and ASCL 91, during which the student completes an honors thesis. To qualify for the Honors Program the applicant must have a GPA of 3.0 overall and GPA of 3.4 in the major. Admission to the program is contingent upon acceptance of the applicant’s thesis proposal. Students should develop a thesis proposal in consultation with a prospective advisor. The primary advisor for an honors thesis must be an ACSL affiliated faculty member. Secondary advisors drawn from ASCL or other departments and programs are encouraged when the student’s project warrants additional expertise. Proposal guidelines can be found on the ASCL website.

As part of the Honors curriculum, ASCL 90 and 91 carry high expectations regarding student performance with regard to writing, deadlines, accountability, and critical reflection. The thesis advisor will assess the student’s progress at the end of the first term of the Honors course sequence. If insufficient progress has been made on the thesis, students will be dropped from the program and given a grade for the work completed in the first term. The grade can count toward the ASCL major but not as a substitute for the ASCL Culminating Experience. A public
presentation of the honors thesis at the end of the second term is a requirement of the Honors program. Completion of both ASCL 90 and 91 replace the ASCL culminating experience. ASCL 91 is an addition to ASCL’s ten-course major.

Students wishing to pursue a fall/winter thesis should submit their proposal to the Steering Committee no later than the seventh week of their junior-year spring term. Proposals for winter/spring theses should be submitted no later than the seventh week of the applicant’s senior year fall term.

Admission to the Honors Program is by vote of ASCL Steering Committee.

Foreign Study Programs

ASCL offers foreign study programs in China (LSA+), Japan (LSA+), and a winterim program in Vietnam, as well as exchange programs with Yonsei University (Seoul), Keio University (Tokyo), Kanda University (China, Japan), and Waseda University (Tokyo). Information about these programs is available through the Frank J. Guarini Institute for International Education.

ASCL - Asian Societies, Cultures, and Languages

ASCL 1.01 - Urban Asia
Instructor: Hockley, Eom

Asian cities, once considered to be recipients or followers of urban models imposed by Western cities, have become new models of urbanism themselves, thereby serving as the heart of the growing body of scholarship which focuses on such dynamic urban processes reshaping cities across the globe. For instance, over the last few decades, Singapore, Shanghai, and Seoul have distinguished themselves as points of reference for other aspiring cities in and beyond Asia. How have Asian cities transformed in an interconnected global economy? How does an interdisciplinary reading of Asian cities provide ways to think anew about Asia today?

With Asia at the center of our urban inquiries, this course proposes to read Asian cities from historical and comparative perspectives. The primary purpose of this course is to introduce students to multiple disciplinary approaches to Asia’s urban environments and their dynamic relationships to other parts of the world. The course features instructors from several Dartmouth departments and programs presenting a diversity of theoretical perspectives and empirical studies drawn from cities across East, South, and Southeast Asia.

Distributive: Dist:INT or SOC; WCult:NW

ASCL 10.01 - Introduction to Chinese Culture
Instructor: Gibbs, Xie

The aim of this course is to provide students with a basic knowledge and appreciation of Chinese culture. We will examine the evolution of Chinese culture and identity from the earliest Chinese dynasties, dating back more than 3500 years, to the present day. Through readings of literary texts in translation, students will be introduced to topics in language, history, literature and art, philosophy and social and political institutions. The course is open to students of all classes. It is required for participation in the LSA and FSP, for the major, and the minor.

Distributive: Dist:LIT; WCult:CI

ASCL 10.02 - Introduction to Korean Culture
Instructor: Kim, Suh

This course provides an introduction to Korean culture and history, examining Korea's visual and textual expressions from the pre-modern age to the twentieth century. What are the origins of Korean national and cultural identities? How have Korean claims of cultural distinctiveness been manifested and modified over time? Tracing answers to these questions simultaneously helps us to consider how and why Korea has entered America's consciousness. As Korea matters to the US not simply as a fact but as a project, this course avoids portraying Korea through any generalized statements or uncritical categories. Rather, students are encouraged to explore novel perspectives on Korea and thereby unravel their own prejudices and agendas. No prior acquaintance with the Korean language is required.

Cross-Listed as: HIST 05.04

Distributive: Dist:SOC; WCult:CI

ASCL 10.03 - Introduction to Japanese Culture
Instructor: Schmidt-Hori

Japanese cultural history through a broad survey of literature, art, social and political institutions, and popular culture. Modern conceptions of Japan and formations of Japanese identity have evolved under the pressures created by radical swings between periods of wholesale appropriation of foreign cultural forms and periods of extreme isolation. The course will trace the evolution of Japanese culture by examining the ways in which cultural archetypes are distinguished in Japan. Taught in English. Open to all classes. Required for the LSA, major and minor.

Distributive: Dist:LIT; WCult:CI
ASCL 11.04 - Introduction to South Asia: Culture and Identity on the Indian Subcontinent
Instructor: ASCL Faculty
This interdisciplinary course is an introduction to the cultures of South Asia—particularly the contemporary nations of India, Pakistan and Bangladesh—with a focus on the issue of identity. The course will examine the many identities of South Asia, including regional, religious, caste, national and gender identities and explore how these identities have been shaped in contexts of change from ancient times to the present. Topics covered will include the role of identity in food practices, Bollywood and sport as well as the role of identity in politics and the public sphere.
Distributive: Dist:SOC; WCult:CI

ASCL 51.01 - Hinduism
Instructor: Ohnuma
An introductory survey of the Hindu religious tradition of South Asia from 1500 B.C.E. down to the present day. Emphasis will be given to the historical development of elite, Sanskritic Hinduism and its constant interaction with popular and local traditions.
Cross-Listed as: REL 9
Distributive: Dist:TMV; WCult:NW

ASCL 51.02 - Modern Hinduism
Instructor: Faculty
The names “Hinduism,” a religion, and “India,” a nation, come from the same word. What’s at stake in mapping one onto the other? We will study the consolidation of Hindu traditions as a modern religion—how the “ism” got in the “Hinduism”—in historical context, examining the writings of thinkers like Gandhi, Radhakrishnan, and Vivekananda. One of the most compelling things about Hinduism’s global image is its association with nonviolence. But a major focus will be the development of Hindutva ideology, which recasts the religion in a militant, masculinized mode. Who speaks—within the academy and outside it—for Hinduism?
Cross-Listed as: REL 19.06
Distributive: Dist:TMV; WCult:NW

ASCL 51.03 - Indian Buddhism
Instructor: Ohnuma
An introductory survey of the Buddhism of South Asia from its beginnings in the 6th century B.C.E. to its eventual demise in the 12th century C.E. Emphasis will be given to the major beliefs, practices, and institutions characteristic of Indian Buddhism, the development of its different varieties (Hinayana, Mahayana, and Vajrayana), and its impact upon South Asian civilization at large. Open to all classes.
Cross-Listed as: REL 018
Distributive: Dist:TMV; WCult:NW

ASCL 51.04 - Tibetan Buddhism
Instructor: Seton
An introductory survey of Buddhism in Tibet from its inception in the 8th century until the present day. Emphasis will be given to the central doctrines, practices, and institutions characteristic of Tibetan Buddhism, its development of various popular and elite religious ideals (householder, nun, monk, scholar, solitary hermit, crazy yogi, and female dakini), and its evolving identity in the West. Not open to students who have received credit for REL 19.21 or ASCL 61.02.
Cross-Listed as: REL 19.21 REL 41.05
Distributive: Dist:TMV; WCult:NW

ASCL 51.05 - Religions of Southeast Asia
This introductory course surveys religion in Southeast Asian contexts. We begin by analyzing the terms “Religion” and “Southeast Asia” as products of global politics. Then, we examine contemporary case studies from seven Southeast Asian countries to explore how religions shape local communities and life experiences. Our course materials lead us to investigate how Spirit Religions, Buddhism, Daoism, Christianity, and Islam intersect and inform understandings of embodiment, health, power, nature, and death. Open to all.
Cross-Listed as: REL 02.01
Distributive: Dist:TMV; WCult:NW

ASCL 52.01 - Music and Dance of North India
Instructor: Levin
This experimental interdisciplinary course explores traditional North Indian (Hindustani) music and dance as both an artistic practice and a cultural system. Course work combines regular group lessons on the tabla—the principal percussion instrument in the performance of Hindustani raga—with weekly reading, listening, and viewing assignments focusing on Indian music theory, history, and aesthetics. Visiting artists will demonstrate the central dance, instrumental, and vocal forms of Hindustani performing arts. No prior musical experience required.
Cross-Listed as: MUS 17.02
Distributive: Dist:ART; WCult:NW

ASCL 53.01 - Divine Love: Desire, Sex, and Romance in Traditions of India
Instructor: Faculty
"You've got the money, but we've got the love." Indians comparing their country with this one often make judgments in these terms. But isn't love a human universal? In this course we will examine how religious texts have helped construct Indian attitudes towards desire, sex, and romance. We will tour various historical genres: erotic how-to, epic, mystical poetry, drama. The ideal bond in many of these texts unites a human subject with a divine lover.

Cross-Listed as: COLT 55.01
Distributive: Dist:TMV; WCult:NW

**ASCL 54.01 - Political Economy of Development in Colonial and Postcolonial South Asia**

Instructor: ASCL Faculty

In 1947, India was partitioned into India and Pakistan. Since then, these countries have wrestled with issues of governance and development, but colonial rule casts a long shadow over their efforts. This course introduces students to the complex politico-economic landscape of the subcontinent by examining how the idea of development changes in modern South Asian history. How are developmental efforts embedded in contexts of politics, society, and culture? How do political systems affect decisions? This course considers these questions by examining themes such as the colonial state's construction of railway and irrigation networks; Nehru's vision of an industrial economy; the challenges posed by Partition and militarization of Pakistan; the Green Revolution; and the onset of economic deregulation.

Distributive: Dist:INT or SOC; WCult:NW

**ASCL 54.02 - Ethnic Identities in Modern South Asia**

Instructor: ASCL Faculty

South Asian society has long been represented by rigid systems of hierarchy. Caste and religion have been represented as inexorable determinants of social possibility. Yet, what are the ways in which people have actually identified themselves, and to what extent is hierarchical identification a product of South Asia's modern history? This course explores the problems of social and cultural difference in South Asia. How do modern institutions such as the census and electoral politics shape the way in which these problems are perceived today? What are the effects of the introduction of English education? This course explores the problems of social and cultural difference in South Asia. We focus on religion, caste, language, and gender as factors shaping ethnic identity in South Asia.

Distributive: Dist:INT or SOC; WCult:NW

**ASCL 54.03 - The City in Modern South Asia**

Instructor: Faculty

South Asian cities are currently undergoing massive demographic and spatial transformations. These cannot be understood without a consideration of both the specific history of South Asia and a broader account of urban change. This course examines these changes in historical perspective and situates urban South Asia within a global context. How did colonial rule transform cities such as Delhi, Lahore, and Bombay? How were the differing ideologies of India and Pakistan mapped onto new capitals such as Chandigarh and Islamabad? How are ethnic pasts and techno futures reconciled in booming cities such as Bangalore and Mumbai? How are slums produced and what are the experiences of people living in them? What are the connections between the urban environment and political mobilization? We consider a range of sources, including scholarly literature, films, and short stories.

Cross-Listed as: HIST 92.05
Distributive: Dist:INT; WCult:NW

**ASCL 54.04 - Partition in South Asia**

Instructor: ASCL Faculty

In the years leading to 1947, nationalist activism against the British and tensions between Hindus and Muslims escalated in the Indian subcontinent. This culminated in Partition and the emergence of the nations of India and Pakistan. Independence was marred, however, by the bloodshed accompanying the mass movements of Muslims into Pakistan and Hindus into India. What were the factors leading to this juxtaposition of triumphal Independence with shameful Partition? What were the implications of Partition for ordinary people? How have memories of Partition continued to affect powerfully politics and culture in the subcontinent? This seminar investigates such questions using a wide variety of materials including films, memoir, fiction, and scholarly works. This course follows recent scholarship in focusing on the long-term implications of Partition for the subcontinent. Hence, while we certainly will investigate the events leading up to Partition, our emphasis will be on understanding the effects of Partition on the lives of ordinary people during and after.

Distributive: Dist:INT or SOC; WCult:NW

**ASCL 54.07 - Colonialism, Development, and the Environment in Africa and Asia**

Instructor: Haynes

This course examines the environmental history of Africa and Asia, focusing on the period of European colonialism and its aftermath. Topics include deforestation and desertification under colonial rule; imperialism and conservation; the consequences of environmental change for rural Africans and Asians; irrigation, big dams and transformations in water landscapes; the development of national parks and their impact on wildlife and humans; the environmentalism of the poor; urbanization and pollution;
and global climate change in Africa and Asia. Open to all classes.
Cross-Listed as: HIST 75; AAAS 50; ENVS 45
Distributive: Dist:INT or SOC; WCult:NW

**ASCL 54.08 - The History of Modern South Asia**
Instructor: Lhost
This course examines the history of South Asia during the nineteenth and twentieth centuries. Themes of the course include the development of British imperialism, the impact of colonial rule on Indian rural society and economy, processes of cultural change, the development of nationalism, the historical role of Gandhi, the emergence of Hindu-Muslim conflict, and the character of post-colonial South Asia. Open to all classes.
Distributive: Dist:INT or SOC; WCult:CI

**ASCL 54.09 - The Vietnam War**
Instructor: Miller
This course examines the conflict which Americans call "The Vietnam War" as a major event in the 20th century histories of both the United States and Vietnam. In addition to exploring the key decisions made by U.S. and Vietnamese leaders, students will also learn about the experiences of ordinary soldiers and civilians. This course incorporates multiple American and Vietnamese sources and perspectives, and also investigates multiple explanations of the war's origins and outcome. Open to all classes.
Cross-Listed as: HIST 026
Distributive: Dist:INT or SOC; WCult:W

**ASCL 54.10 - Global South Asia**
Instructor: Lhost
Home to some of the world’s richest people and biggest companies, South Asia has been the source of countless stories of success. Yet there’s more to these stories than meets the eye. What makes South Asia important globally and what is the history behind South Asia’s recent rise? Global South Asia answers these questions by looking at the ways the region has been connected to other parts of the world throughout history.
Cross-Listed as: HIST 90.09
Distributive: Dist:SOC; WCult:W

**ASCL 54.11 - Gandhi, Twentieth Century India and the World**
Instructor: Haynes
This course explores the history of modern India through the figure of Mahatma Gandhi. After exploring early developments in Gandhi's life and his philosophy of non-violence, we will examine the role of Gandhi and of his image in major political developments in India. We will also take up many key issues relating to Gandhian thought, including Hindu-Muslim relations, caste, gender and sexuality, and social equality. Finally, we will discuss Gandhi's legacy in India and globally.
Cross-Listed as: HIST 05.11
Distributive: Dist:INT or SOC; WCult:NW

**ASCL 55.01 - Anthropology of Tibet and the Himalayas**
This course introduces students to the peoples and cultures of Tibet and the greater Himalayan region (Nepal, northern India, Bhutan). We examine the cultural, ecological, political, religious, and economic interfaces that define life on the northern and southern slopes of Earth's greatest mountain range. In addition to learning about Himalayan and Tibetan lifeways, we will also learn about how these mountainous parts of Asia have figured into occidental imaginings, from the earliest adventurers to contemporary travelers.
Cross-Listed as: ANTH 32
Distributive: Dist:SOC; WCult:NW

**ASCL 59.01 - Topics TBA Foreign Study in India**
Instructor: University of Hyderabad Faculty
Credit for this course is given to students who successfully complete this course at the University of Hyderabad while on the ASCL/WGSS FSP.
Cross-Listed as: WGSS 91
Distributive: WCult:NW

**ASCL 59.02 - Topics TBA Foreign Study in India**
Instructor: University of Hyderabad Faculty
Credit for this course is given to students who successfully complete this course at the University of Hyderabad while on the FSP.
Cross-Listed as: WGSS 92
Distributive: WCult:NW

**ASCL 59.03 - Foreign Study in India -Topics TBA**
Instructor: Faculty
Credit for this course, taught by the FSP director, is given to students who successfully complete this course at the University of Hyderabad while on the ASCL/WGSS FSP. Topics vary from year to year.
Cross-Listed as: WGSS 90
Distributive: WCult:NW

**ASCL 60.01 - Traditional Chinese Short Fiction**
Instructor: ASCL Faculty
This is a survey course of the Chinese narrative tradition in the form of short fiction, spanning roughly from the 3rd century BCE to the second decade of the 20th century CE. We will discuss the birth and development of this literary genre, including its aesthetic and linguistic conventions, its themes, and its relationships to other literary and cultural forms and activities. We will also explore the philosophical, literary, aesthetic, socio-political atmospheres and circumstances in which Chinese short fiction evolved over the different stages of its long history.

The goal of the course is to acquaint the student with the unique and important genre of traditional Chinese literature. The material will be presented in chronological order. Knowledge of Chinese is not required.

Distributive: Dist:LIT; WCult:NW

ASCL 60.02 - Women in China
Instructor: ASCL Faculty
This is a survey course of Chinese ideas and practices concerning women. The pursuit of this theme will take the student through a wide variety of Chinese literary genres and materials, including the classics, poetry, fiction, drama, biography, and law. The use of women as a focus in the organization of the course provides the selectivity that makes such comprehensiveness possible. The aim is to provide the student with an intimate portrait of the development of Chinese culture as a whole through the examination of one of its central systems. The course is designed with the presumption that an understanding of Chinese thoughts about women will lead to an enhanced understanding of Chinese thoughts about Chinese people and life in general. The material will be presented in chronological order, keeping in mind the broader time perspectives.

Distributive: Dist:LIT; WCult:NW

ASCL 60.03 - Frontier in Traditional Chinese Thought: Beyond the Great Wall and the Becoming of China
Instructor: Xie
The conceptions of frontier, frontier-heartland relations, unity and territoriality are crucial to the formation of the Chinese cultural and spatial identity from the ancient time to today. At the moment, the frontier space beyond the Great Wall takes up more than half of the entire Chinese territory. The ways Chinese people deal with their ethnic minority regions, differentiate the northerners and the southerners, view their own culture and cultural others and imagine their regional and global roles can all be related to the spatial conceptions with regard to the frontier in pre-modern China. This course will trace the development of these conceptions through a variety of philosophical, cosmological, religious, historical, geographical, and literary texts and images. Classical Chinese texts however are not categorized by discipline but represent a body of interdisciplinary knowledge that reflects the culture’s thoughts and values. The course will deal with the materials in a way that relive their a-disciplinary nature while maintaining a critical perspective on them. When relevant, the course will also examine broader theoretical issues such as political morality, gender and sexuality, and border-crossing.

Distributive: Dist:TMV; WCult:NW

ASCL 60.04 - Modern Chinese Literature across Time, Space and Media
Instructor: Xie
This upper level survey course will introduce participants to major works in modern Chinese literature and related media forms, as well as academic discussions surrounding them. Using a variety of sources, including literary texts, films, music, ballet, installation, and digital arts, we will closely examine each in terms of their content and form. We will look at associated original texts, undertake critical analyses of their social contexts, and consider their influences and the challenges they face in China and the world. We will also introduce at least two genres of literature and arts each week, and compare how similar motifs unfold in different ways through different media. By highlighting the temporal development of modern Chinese literature as well as the spatial dissemination of the texts, the course will allow participants to realize both the depth and range of modern Chinese literature.

Distributive: Dist:LIT; WCult:NW

ASCL 60.05 - Love and Desire in Modern Chinese Literature
Instructor: Gibbs
Spanning a selection of short stories and novels from the early twentieth century to the turn of the millennium, this course explores connections between themes of filial piety, nationalism, revolutionary idealism, nostalgia for the past, ideological constraints placed on love, and attempts to subvert those constraints. Lectures and readings will relate the works covered to key intellectual and political movements, connecting ideas of individual romance and disillusionment to larger issues of modernity and globalization.

Distributive: Dist:LIT; WCult:NW

ASCL 60.07 - Chinese Painting, Poetry, and Philosophy
Instructor: ASCL Faculty
A systematically trained traditional Chinese scholar was expected to achieve perfection in all the three areas – classical poetry, calligraphy, and traditional Chinese painting. Thus the poetry-calligraphy-painting “Three Perfections” represents certain significant aspects of the Chinese culture. Since none of the “Three Perfections” is possible beyond the intellectual context of Chinese philosophy, and also, since the traditional Chinese painting
has to be written (in the way of Chinese calligraphy) rather than painted, the Chinese painting/calligraphy, poetry, and philosophy are indeed the key for understanding the Chinese culture. By introducing the basics of traditional Chinese painting/calligraphy, classical Chinese poetry, Chinese cosmology, philosophy and religions, this course is the gateway to the Chinese manuscript culture that defines the written tradition of the Chinese culture. The first-hand experience of basic brush-and-ink techniques of traditional Chinese shuhua (calligraphy and painting) provides the student with visual and enjoyable illustrations of the relationship between traditional Chinese art and cosmology. Reading through the oriental tradition of Chinese painting, poetry, and philosophy, the student will be able to view the same universe from a different but an artistic, literary, intellectual, and written perspective.

Distributive: Dist:ART; WCult:NW

ASCL 60.09 - Classical Chinese Poetry
Instructor: ASCL Faculty
This is an introduction to classical Chinese poetry, from its beginning to the last imperial dynasty in China, Qing (1616-1911) dynasty. By reading, discussing and writing on the representative works of classical Chinese poetry, the students will familiarize themselves with the key genres of classical Chinese poetry, such as archaic style poem, fu rhapsody, modern style poem, ci lyric and qu musical lyric, as well as the major poets who have had an enduring impact on the Chinese literary tradition. We will study both the Chinese originals and their English translations in this course. The poems will be examined in their cultural, historical, intellectual and literal contexts.

Distributive: Dist:LIT; WCult:NW

ASCL 60.19 - Languages of China
Instructor: Pulju
In this course, we will survey both the history of language in China, and the current linguistic situation. Topics will include: geographical and genealogical classification of languages in China; the phonological and grammatical systems of representative languages; the reconstruction of Middle and Old Chinese; ways of writing both Sinitic and non-Sinitic languages; language as a marker of ethnic identity; and past and present language policies, both governmental and non-governmental.

Cross-Listed as: LING 11.02
Distributive: Dist:SOC; WCult:NW

ASCL 60.20 - Languages and Scripts of Gender, Class, and Nation
Instructor: Schmidt-Hori
While language is commonly believed to be a great "tool" with which we describe our feelings and physical phenomena, it is also the portal through which we understand the world. In other words, language defines, constrains, and colors human experiences. With this premise as the basis, this course attempts to expand our horizons by examining the ways the spoken languages of Japan, Korea, and China convey concepts such as masculinity, femininity, affection, status, and solidarity. In the latter half of the term, we will also explore the layers of complexity embedded in the writing systems of these three nations. In so doing, we will shed light on each society's historical negotiation of its national identity, Sinophilia, and desire to become a first-class nation of the modern world. No previous knowledge of an Asian language is required.

Distributive: Dist:INT or TMV; WCult:NW

ASCL 60.21 - Body Politics in Japan: Beauty, Disfigurement, Corporeality
Instructor: Schmidt-Hori
The body is a tangible, self-evident entity. Or is it? The premise of ASCL 60.21 is that the body is a political, ethical, sociocultural, and historical phenomenon deeply ingrained in our perceptions of self, other, and the world. This course is an endeavor to understand the politics of the body in premodern and modern Japan through a wide range of primary and secondary texts. In order to consider the multiple perspectives of the body across time, the readings are organized thematically, covering topics from physical beauty as virtue/vice, symbolic meanings of hair and clothing, aesthetics of the Tale of Genji, to disfigurement, disability, aging, race, among other things. This course is open to everyone and no knowledge of Japanese literature or language is required.

Distributive: Dist:INT or TMV; WCult:NW

ASCL 60.22 - Gender, Sexuality, and Power in Premodern Japan
Instructor: Schmidt-Hori
With a mythical transgendered Sun Goddess, amorous noblemen in pursuit of beautiful ladies, vengeful women wreaking revenge on unfaithful lovers, and Buddhist priests and samurai in same-sex love affairs, classical Japanese literature is populated by figures with a surprisingly diverse range of gender types. The course will cover, in chronological order, myths, courtly tales, poetry, martial epics, ghostly drama, and medieval short stories from the 8th to 16th centuries, and through these texts depicting the interrelationship of gender, sexuality, and power, students will come to an understanding of how historical, political, linguistic and cultural forces shape subjectivity. The course is open to all students; it is taught in English and there are no pre-requisites.

Distributive: Dist:TMV; WCult:NW
ASCL 60.23 - Critiquing Modern Japan through the Works of Murakami Haruki
Instructor: Schmidt-Hori
The students will read and discuss several works of Japan’s best-known contemporary author, Murakami Haruki. Through focusing on the recurrent themes of violence, isolation, disconnection, materialism, apathy, and sexuality in Murakami’s fictions, the students will consider the various societal issues of post-1970s Japan.
Distributive: Dist:LIT; WCult:NW

ASCL 60.24 - Image and Text in Modernizing Japan
Instructor: Dorsey
Images and text have been variously combined in the Japanese tradition, from the ancient picture scrolls to today’s manga (comics). This course traces the evolution of such media in early modern Japan, with a focus on the late nineteenth century shift from the “communal reading” of visually-oriented texts to the silent, solitary reading of fiction. Some consideration will also be given to the re-emergence of the visual imagination in film, manga, and animation.
Distributive: Dist:LIT; WCult:NW

ASCL 60.25 - The Art of War: Stories, Paintings, Films, and Propaganda from Japan’s Modern Wars
Instructor: Dorsey
In this course we will examine the relationship between a wide variety of cultural artifacts and modern Japan’s experience of war, particularly WW II. Topics addressed within this context include: government censorship, literary subversion, popular culture versus high culture, visual versus written media, postwar cultural memory, the ideology of suicide squads, and the mentality of victimhood. No Japanese language is required for the course, but students with sufficient ability will be expected to make use of original sources.
Distributive: Dist:LIT; WCult:NW

ASCL 60.92 - Theory and Practice of Translation
Instructor: Dorsey
Every time we interpret a facial expression, cloud-filled sky, data set, blood test result, or sequence of musical notes, we are, in a sense, “translating.” This course seeks to make us more aware of that process through an engagement with the theory and practice of translation as it has been practiced between English and Japanese, two utterly unrelated languages. We’ll look at Japanese and English textbook translations, manga and young adult “translations” of classics like the Tale of Genji, Murakami Haruki’s translation of Salinger and Rubin’s translations of Murakami. We’ll try our hand at translating poetry, jokes, songs, puns, prose and more, polishing our own translating skills while experimenting with different conceptual approaches and “workshopping” our attempts. Prerequisite: JAPN 31 or equivalent.
Distributive: Dist:LIT; WCult:NW

ASCL 60.93 - Countercultures of Japan’s 1960s
Instructor: Dorsey
Like their American counterparts, Japanese youth in the 1960s occupied university administration buildings, protested war and imperialism, and denounced discrimination, exploitation, and the status quo. This course will explore their counterculture through the music, fiction, film, and comics (manga) of that decade. Topics include: ambivalent attitudes towards the U.S., generational discord, new conceptions of love and sex, the legacy of war and the relationship of culture to politics. Most of the course will be conducted in Japanese, but some theoretical and historical issues will be researched and discussed in English.
Distributive: Dist:LIT; WCult:NW

ASCL 60.94 - Chinese Martial Arts Fiction
Instructor: ASCL Faculty
This course is an introduction to the Chinese literary genre of martial arts fiction, including the world of Chinese martial arts, especially taijiquan. It will focus on Yitian tulong ji (Heaven Sword and Dragon Saber: literally, The Tale of Relying on Heaven to Slay the Dragon) by Jin Yong (Louis Cha), the most successful and influential contemporary Chinese martial arts fiction writer. Supplementary readings of the relevant original classics on martial arts will also be introduced.

ASCL 60.95 - Modern Chinese Poetry
Instructor: ASCL Faculty
An introduction to modern Chinese poetry. Rebelling against over two thousand years of poetic tradition, Chinese poetry of the twentieth century represents one of the major achievements of modern Chinese literature and reflects the brilliance of young literary talent.

ASCL 61.01 - The Religions of China
Instructor: Raz
An introduction to China’s three major religions—Confucianism, Daoism, and Buddhism—through the reading of classic texts. Also, a look at important elements in Chinese folk religion: ancestor worship, temples, heavens and hells, and forms of divination. Special attention will be paid to the importance of government in Chinese religious thought and to continuity and change in the history of Chinese religion. Open to all classes.
Cross-Listed as: REL 10
Distributive: Dist:TMV; WCult:NW
**ASCL 61.05 - Women and Religion in Japan**  
Instructor: Simpson  
This course examines how Japanese religious traditions (such as Shinto, Buddhism, and others) have informed the lives of women in premodern and modern Japan, and the roles that women have played as nuns, patrons, lay practitioners, and religious specialists. We will examine both what religious traditions said about women and womanhood, and how women interacted with religious views and practices, many of which denigrated or limited women’s participation.
Cross-Listed as: REL 19.29  
Distributive: Dist:TMV; WCult:NW

**ASCL 61.06 - Religions of Japan**  
Instructor: Simpson  
This course examines the historical development of the various religious traditions of Japan, from prehistoric to contemporary times. While prehistoric artifacts indicate what early Japanese religion may have looked like, the bulk of Japanese history features interactions between native, local Japanese practices and beliefs and the influence of continental traditions such as Buddhism, Confucianism, Daoism, and geomancy. Here, we will consider how the Japanese have adapted, combined, and redefined religious traditions over the centuries while interrogating what the word “religion” means within the context of each religion, sect or locality. Open to all.
Cross-Listed as: REL 19.31  
Distributive: Dist:TMV; WCult:NW

**ASCL 61.07 - Shinto: Foundations, Festivals, and Fox Shrines**  
Instructor: Simpson  
Shinto has been called the way of the gods, a nature religion, a native Japanese religion, a nationalist religion, to name but a few of its many descriptions. In this class, we will spend a great deal of time figuring out what Shinto is and is not, debating the relative merits of these classifications. We will see that Shinto is, to say the least, a multifaceted tradition with a complex history and countless local variations. Open to all.
Cross-Listed as: REL 19.32  
Distributive: Dist:TMV; WCult:NW

**ASCL 61.08 - Buddhism in Korea and Japan: From Tribute Missions to Temple Tourism**  
Instructor: Simpson  
Buddhism has long been an established religious tradition and important aspect of cultural heritage in both Korea and Japan. However, there are key differences in how Buddhism developed and how the religion functions today. In South Korea, most people classify themselves as Buddhist or Christian; in Japan, the majority consider themselves non-religious, yet visit Buddhist temples and hold Buddhist funerals; in North Korea, roughly 10,000 Buddhists remain in spite of religious persecution by the state. Clerical marriage is widely accepted in Buddhist sects throughout Japan, whereas the practice has been the subject of heated debate in South Korea since the 1950s. How did these differences emerge, and what common ground remains?
Cross-Listed as: REL 41.06  
Distributive: Dist:TMV; WCult:NW

**ASCL 61.09 - Yin Yang and Feng Shui: Chinese Cosmology, Divination and Arts of Placement**  
Instructor: ASCL Faculty  
This is an introduction to the *yin yang* and *feng shui* (geomancy) cosmological and self-cultivation theories and practices. On the one hand, Chinese *yin yang* and *feng shui* cosmology is the foundation to understand traditional Chinese art, architecture and culture. On the other hand, they provide us with effective practices for our self-cultivation and to fight against COVID-19. We will learn the basics of the related Chinese cosmological classics, such as *I Ching* (*Yijing* or *Zhouyi*), the *Classic of Changes*, which has also been considered one of the earliest masterpieces in Chinese literary and intellectual traditions, as well as the arts and theories to improve our lives by creating balanced and optimal environments outside and inside our bodies.
Distributive: Dist:TMV; WCult:NW

**ASCL 62.01 - Chinese Calligraphy**  
Instructor: ASCL Faculty  
Traditional Chinese literature ranges from the earliest examples--divinations inscribed on turtle plastrons and ox scapulae dating back more than 3000 years--to the popular knight-errant novels of the early 19th century. The Opium War of 1839-42 is taken as the cut off point for courses in this topic category, which considers cultural as well as literary themes. Courses reflect the interests and expertise of the teaching staff and include the development of the Chinese script, historical prose, fiction and drama, poetry, and oral literature. Courses under this rubric are defined by historical period and/or literary genres. Courses numbered 61 - 63 are literature-in-translation courses, and do not require knowledge of the Chinese language. There are no prerequisites and courses are open to students of all classes. They may be repeated for credit if the topic varies. This course is a survey of the major script types in the Chinese writing system and an introduction to the art of Chinese calligraphy. Along with studying the history of Chinese calligraphy, the student will learn about the similar technical origins of Chinese calligraphy and
painting, study and practice the basic techniques of Chinese calligraphy, and learn the basic rules of formation of Chinese characters. Classroom practice will give the student hands-on experience of using traditional Chinese writing tools.

Distributive: Dist: ART; WCult: NW

**ASCL 62.02 - Traditional Performance in China: Past and Present**

Instructor: Gibbs

From folksong collection in Confucian times to current efforts at preserving Intangible Cultural Heritage, this course begins by introducing traditional ideas about the folk and folk culture in China, and how the relationship between folk and elite has changed over time, with special emphasis on the twentieth and twenty-first centuries. Through the examination of local traditions of storytelling, epic singing, folksongs, ritual, and local drama from various time periods and geographical areas, students will gain a deeper, more nuanced understanding of the diversity of regional and ethnic expressive forms within China and how they continue to develop over time through the present day. During this course, you will also become familiar with important theories from folklore studies and learn to apply them in analyzing performances and texts—skills that can be fruitfully extended to both personal and professional areas of your life in the future.

Distributive: Dist: LIT; WCult: NW

**ASCL 62.06 - Exploring Korea Through Film**

Instructor: Kim

This course explores cinematic representations of Korean history and the diverse interpretations of social, cultural, and political issues portrayed in modern and contemporary Korean films. The course is structured by thematic issues, including: Korean ideas about politics and monarchy, North Korea's self-identity, rapid industrialism, South Korea's democratic movement, and Korean's concept of love. The class will view Korean films, and also read novels depicting similar issues and compare and contrast the theatrical and literary representations.

Distributive: Dist: SOC; WCult: NW

**ASCL 62.07 - Introduction to Korean Art**

Instructor: Kim

This course will introduce the arts and culture of Korea from the prehistoric period through the twentieth century. Significant examples of painting, ceramics, sculpture, and architecture will be closely examined in their political, social, and cultural contexts. We will explore how East Asian motifs were incorporated into traditional Korean art. We will see how Korea struggled to find its artistic identity within the international context during the 20th century.

Cross-Listed as: ARTH 32.11

Distributive: Dist: ART; WCult: NW

**ASCL 62.08 - Modern and Contemporary Korean Art**

Instructor: Kim

This course examines the art and culture of Korea from the late nineteenth century through the twentieth century. During this period Korea experienced the fall of its 500-year-long dynasty, annexation to Japan, the Korean war, division into two Koreas, and internationalization/globalization. The class will explore how visual art, including paintings, photographs, posters, ceramics, and film, reflected and expressed the political, socio-economic, and cultural changes and concerns of each period, in both South and North Korea.

Cross-Listed as: ARTH 62.20

Distributive: Dist: ART; WCult: NW

**ASCL 62.09 - Krieger's Virtual Girlfriend: Japanese Anime and the Idea of the Posthuman**

Instructor: Washburn

An examination of major trends in popular visual culture in Japan since the 1980s focused on the growth in production and distribution of animated films, tv series, and video games. Screenings will include works by Miyazaki Hayao, Rintaro, Takahata Isao, and Kon Satoshi. Readings will include both critical and historical sources that will provide the social and economic contexts for the development of the anime industry, theories of animation, and the global impact of Japanese popular culture.

Cross-Listed as: FILM 47.19

Distributive: Dist: ART; WCult: NW

**ASCL 62.10 - Sacred Art and Architecture of Japan**

Instructor: Hockley

This course examines Shinto and Buddhist architectural, sculptural, painting and print traditions from the prehistoric to the modern era. The primary emphasis will be on the relationship of these arts to their doctrinal sources and the ritual, social, and political contexts in which they were created and utilized.

Cross-Listed as: ARTH 32.21

Distributive: Dist: ART; WCult: NW

**ASCL 62.11 - The Japanese Painting Tradition**

Instructor: Hockley

This course provides a comprehensive introduction to the Japanese painting tradition. Surveying a broad range of themes, formats, and styles and exploring the relationship between indigenous sensibilities and the traditions Japanese artists borrowed from continental Asia and the
West, it defines the unique aesthetic experience offered by Japanese sacred and secular painting. Its focus on patronage and studio practice emphasizes the social, political, and cultural processes that underscored important developments in the painting tradition.

Cross-Listed as: ARTH 32.22
Distributive: Dist:ART; WCult:NW

**ASCL 62.12 - Japanese Prints**

Instructor: Hockley

A survey of the Japanese print tradition from its inception in the seventeenth century through modern prints in the early twentieth century, this course emphasizes the relationship between prints and the political, social, and cultural milieu in which they circulated. The curriculum includes applications of recent critiques and theoretical approaches from fields as diverse as sexuality and gender studies, mass culture and media studies, aesthetics of popular arts, and the sociology of consumption.

Cross-Listed as: ARTH 62.30
Distributive: Dist:ART; WCult:NW

**ASCL 62.13 - Women, Gender, and Art in East Asia**

Instructor: Kim

This course will focus on women as the subjects, the creators, and the patrons of art in China, Korea, and Japan from the 16th century to the present. It will be organized chronologically, culturally, and thematically. This will involve an exploration of powerful matrons of art and their aspirations, a historical survey of women artists and their artistic contributions, and an examination of the religious and secular images of women and its limitations. The course will also look at contemporary artists and investigate their artistic discourses, messages, and experimentations. Extensive attention will be given to the creation, modification, and persistence of these images throughout history, due to various social, economical, psychological, and intellectual conditions. This course will develop students' thinking skills in the history of art and improve their ability to conduct research and communicate both orally and in writing within the discipline.

This course requires no previous coursework or experience, but is intended for those who like interdisciplinary approaches to art and culture.

Cross-Listed as: ARTH 62.81
Distributive: Dist:ART; WCult:NW

**ASCL 63.01 - Asian Medical Systems**

Instructor: Armbrecht

This course investigates systems of healing practiced in, and derived from, Asia. We will focus primarily on three Asian medical systems: Ayurveda, Chinese medicine, and Tibetan medicine. We will strive to understand how these medical systems are based on coherent logics that are not only biologically but also culturally determined. We will also analyze the deployment of these medical systems in non-Asian contexts, and examine the relationship between Asian systems and "western" biomedicine.

Cross-Listed as: ANTH 045
Distributive: Dist:SOC; WCult:NW

**ASCL 64.01 - Cultural Struggles in Colonial Korea**

Instructor: Kim

This course explores Korean history between 1876 and 1945, as Korea entered the modern period. First, we will examine how Japan, China, and Korea responded to Western imperialism in the 19th century, and then how China and Korea responded to Japanese imperialism early in the 20th century. The second half of the class will explore the Japanese colonial government's assimilation policy during the colonial period in Korea, and how Korea was affected by and reacted to various aspects of this policy. The establishment of historiography, formulation of aesthetic and cultural cannons, and shaping of images of Koreans and their land will be explored by examining diverse media including literature, photographs, exhibition catalogues, and other primary sources. The class will conclude with the continuing legacy of the Japanese colonial period. All readings are in English. No prior knowledge of Korea or Korean language assumed.

Distributive: Dist:SOC; WCult:NW

**ASCL 64.03 - North Korea: Origins and Transitions**

Instructor: Suh

This course explores the history of the Democratic People's Republic of Korea (North Korea) from a global perspective. Topics include the Japanese colonial legacies; liberation, division, and foreign occupation between 1945 and 1950; the meanings of the Korean War; comparing Kim Il-Sung's North Korean revolution with Park Chunghee's state building in the South; the reality of "Self-Reliance"; social control and everyday life; and issues around human rights.

Cross-Listed as: HIST 78.02
Distributive: Dist:SOC; WCult:NW

**ASCL 64.04 - Christianity in Korea**

Instructor: Suh

This course examines Korean Christians' beliefs and practices, which have shaped and brought tensions to current socio-religious phenomena. Topics include the Korean origins of Christianity, the encounter between Catholicism and Neo-Confucianism in the eighteenth century, Protestant missionaries' role in medicine and education, the rise of nationalism and Christianity under
Japanese colonialism, churches in North Korea, Pentecostalism under South Korea’s rapid industrialization and democratization, Korean missionaries around the world, and Christian musicians and entertainers in Korea, as well as the interface between gender and Korean Christian culture.

Cross-Listed as: HIST 78 REL 32.01
Distributive: Dist:TMV; WCult:NW

ASCL 64.05 - The Two Koreas, 1948-Present
Instructor: Suh
This course explores the emergence of the two Koreas, from a global perspective. Beginning with the legacies of the Chosŏn Dynasty, we will examine the impact of Japanese colonialism on the divergence of the two nation-states: the Republic of Korea (South Korea) and the Democratic People’s Republic of Korea (North Korea). Analyzing scholarly writings and primary sources, the course will focus on the domestic and international processes through which the two regimes clashed and competed in the context of the Cold War. We will primarily focus on drastic differences manifested between the two countries’ ideologies, cultures, and political economies, but also pay attention to unexpected parallels experienced by Koreans across the hostile division. Students will pursue a final research project, in consultation with the instructor, on a comparison of their choice related to the themes of this course. No prior knowledge of the Koreas or the Korean language is expected.

Cross-Listed as: HIST 78.03
Distributive: Dist:SOC; WCult:NW

ASCL 64.08 - The History of China since 1800
Instructor: Crossley
This survey course traces China's social, political, and cultural development from the relative peace and prosperity of the high Qing period, through the devastating wars and imperialist incursions of the nineteenth century, to the efforts, both vain and fruitful, to build an independent and powerful new nation. Open to all classes.

Cross-Listed as: HIST 05.03
Distributive: Dist:TMV; WCult:NW

ASCL 64.09 - Late Imperial China in Global Context
Instructor: Crossley
China's history, from the 3rd century BCE to the twentieth century, examined in the context of global developments in demography, economy, urbanization, technology, trade, and the arts. Open to sophomores, juniors, and seniors.

Cross-Listed as: HIST 072
Distributive: Dist:SOC; WCult:NW

ASCL 64.11 - The Emergence of Modern Japan
Instructor: Mills
A survey of Japanese history from the mid-nineteenth century to the present. Topics to be covered include the building of a modern state and the growth of political opposition, industrialization and its social consequences, the rise and fall of the Japanese colonial empire, and the postwar economic ‘miracle.’

Cross-Listed as: HIST 05.05
Distributive: Dist:SOC; WCult:NW

ASCL 64.12 - Postwar Japan: From Occupied Nation to Economic Superpower
Instructor: Mills
This course examines the internal and external forces that have shaped Japan's government, economy, and society since 1945. Topics to be treated include American Occupation reforms, the conservative hegemony in politics, rapid economic growth and its costs, the mass middle-class society, and Japan's changing world role. Open to all classes.

Cross-Listed as: HIST 079
Distributive: Dist:SOC; WCult:NW

ASCL 64.13 - Intellectual History of East Asia
Instructor: Crossley
A comparative exploration of Chinese and Japanese thought, from the formation of Confucianism in the Warring States period to the confrontation between traditional thought and the imported ideologies of the twentieth centuries. In writing assignments, students may concentrate upon either Chinese or Japanese topics. Open to sophomores, juniors, and seniors.

Cross-Listed as: HIST 074
Distributive: Dist:TMV; WCult:NW

ASCL 64.14 - Slaves and Rebels in Korea, 1392-1910
Instructor: Suh
This course explores the history of Choson Korea (1392-1910) through the experiences of outcasts and commoners. By examining the desires and despair of peasants, slaves, rebels, entertainers, and religious minorities, this course assesses the foundation of the state and the operation of society as manifested at the margins of society. How did the religious and intellectual heritage of Korea legitimize hereditary status, slave ownership, gender division, and regional discrimination? In what ways did ordinary people conform to or struggle against elite governing? Does the longevity of the Chasŏn dynasty testify to the successful control of the status system by those at the top? Or does
Instructor: Ericson

This course explores the origins and development of the warrior class that dominated and redefined the political economy and high culture of Japan between the twelfth and nineteenth centuries. Through readings, discussions, lectures, and films, we will examine such topics as the rise of the samurai, the transition from imperial to warrior government, the evolution of samurai values and beliefs, and the legacy of warrior rule and culture for modern Japan.

Distributive: Dist:SOC; WCult:NW

ASCL 70.01 - Sacred Architecture of Asia
Instructor: Hockley

This course provides an introduction to the sacred architecture of Asia through a series of case studies that include Buddhist monasteries, Hindu temples, Mosques, Daoist and Confucian temples, Shinto shrines, funerary architecture, and the sacred dimensions political authority as manifested in palaces, city plans, and mausolea. The pan-Asian nature and long historical development of Buddhism, Hinduism, and Islam affords opportunities to examine national and sectarian adaptations of architectural practices. Focusing on relationships between sacred architecture and religious doctrine, ritual practice, and the communities that use sacred sites this course introduces an array of analytical approaches to sacred architecture that students will learn to employ in class discussion and written assignments. This course has no prerequisites and assumes no prior experience with Asian religions or architectural studies.

Cross-Listed as: ARTH 38.01
Distributive: Dist:INT or ART; WCult:NW

ASCL 70.02 - East Meets West
Instructor: Kim

This class explores the interaction between the cultures of East Asia and the West from as early as c. 200 BCE to the early 20th century. The course consists largely of four themes: the Silk Road and the Arts, the Pottery Stories, the Jesuits and the Arts, and Asian Arts in Europe. The class starts with the Silk Road, the world’s first great superhighway that from ancient times linked East Asia to the Mediterranean World across Central Asia, and examines how ideas, art, and religions traveled and were transformed through their journey. The second theme, the Porcelain stories, conveys how aesthetics, technology, designs and motifs were transmitted from East to West and vice versa. We will ask questions, such as: Why was porcelain so desirable? Where did porcelain rank in the hierarchy of art forms and materials in Asia and Europe? How much did a piece of porcelain cost at any moment in time? Why did Japan and Korea have “the Pottery War” and what was the significance of that war in East Asia (and Europe)? The third theme, the Jesuits and the Arts, looks at the hybrid blend of two or more traditions and the artistic productions that arose from those blends. We also will examine together the paintings of Asian and European artists, the paintings of European artists on Asian themes with a traditional Asian medium, and the work of Asian painters’ on European subject matter with a European medium. The last theme, Asian art in Europe, scrutinizes the Western reception of Asian subjects, motifs, designs,
and aesthetic values, and their appropriation for artistic productions. European interpretation (or imitation) of Chinese arts, so called Chinoiserie, and the Japanese influence on European art, known as Japonism, will be closely examined. Through lectures, readings, and films, we will explore the historical and artistic links between East and West and some selected art associated with those routes. This course requires no previous experience, but is intended for those who like interdisciplinary approaches to art and culture. No previous coursework is required.

Cross-Listed as: ARTH 38.03
Distributive: Dist:ART; WCult:NW

**ASCL 70.03 - Asian Animation as Socio-Political Artifact**

Instructor: Faculty

Because animated films have traditionally been targeted at children, animators in Asia have often been able to side-step much of the political control exercised by some of their more centralized governments to create sophisticated artistic works that speak as much to educated adults as they do to children. The course will feature the most interesting of these works from China, Japan, and Korea, and students will analyze them within a socio-political and cultural context. Particular attention will be paid to the development of both originality and argumentation in student papers and class participation.

Cross-Listed as: FILM 42.08
Distributive: Dist:ART; WCult:NW

**ASCL 70.04 - Tokyo and Shanghai as Ideas: Urban Space/Imagined Modernity**

Instructor: Washburn

Tokyo and Shanghai are not just major centers of political and economic activity. They are also ideas, functioning as imagined space that is backdrop for and symbol of the desires, aspirations, and dislocations characteristic of contemporary Asian societies. This course examines the hold Tokyo and Shanghai have had on Eastern Asian writers, artists, and intellectuals, and the role these metropolises currently play in the globalization of modern culture.

Distributive: Dist:INT or LIT; WCult:NW

**ASCL 70.05 - China in the Japanese Imagination: Translations of Identity**

Instructor: Washburn

China has profoundly influenced every formative element of identity in Japan: language, legal and political institutions, religion, philosophy, and the visual and literary arts. This course surveys key historical moments -- the Taika Reforms of the seventh century, mid-Heian appropriations of Tang court society, Tokugawa adaptations of Ming and Qing culture -- to examine how the process of translating Chinese cultural forms radically reshaped Japanese society and impacted the vexed modern relationship between the two nations.

Distributive: Dist:INT or LIT; WCult:NW

**ASCL 70.06 - Magic and Supernaturalism in Asian Literature and Film**

Instructor: Chin

This course examines magical and supernatural elements in literature and films from China, Japan, India and Southeast Asia. It studies artistic, psychological and political implications and interregional traditions of folklore and fiction. Literary texts include Pu Song Lin’s *Strange Tales from a Studio*, Catherine Lim’s *The Howling Silence*, Batin Long bin Hok’s *Jah Hut Tales* and Tunku Halim’s *Dark Demon Rising*. Films may include Akira Kurosawa’s *Dreams*, Masaki Kobayashi’s *Kwaidan* and contemporary works such as Chan Wook Park’s *Thirst*.

Distributive: Dist:INT or LIT; WCult:NW

**ASCL 70.07 - Asian Performance Traditions**

Instructor: Chin

This course studies the performance traditions of Asia, focusing on China, Japan, Indonesia and India. Classical forms studied include Noh, Bunraku, Beijing opera, Sanskrit drama, Balinese dance and Javanese puppet theater. Attention is paid to social, religious and aesthetic influences on these traditions, theories on which they are based, the history behind the theatrical practices, and training and dramatic techniques. Students gain an appreciation of the rich variety and scope of theatrical conventions of Asia.

Cross-Listed as: THEA 24
Distributive: Dist:ART; WCult:NW

**ASCL 70.08 - Nomads from Central Asia to the Middle East**

Instructor: ASCL Faculty

This course examines nomadic pastoralism as an economic system adapted to ecologically marginal environments and as a socio-political system adapted to the culturally heterogeneous regions of Central Asia and the Middle East. We will survey the changing roles of nomadic peoples to gain insight into the political and social dynamics of historical and contemporary societies in this region. Nomad society, its origins and development, the ecology of the pastoralism, gender, and identity issues as well as the relationship between nomad and sedentary societies and the role of pastoralism as a route of cultural transmission and economic exchange are examined.

Distributive: Dist:INT or SOC; WCult:NW
ASCL 70.09 - Global Sounds
Instructor: Levin
A survey of music and music-making whose origins are at least partially in the non-European world. In Spring 2015, the class will address ways that particular kinds of music are culturally and socially contextualized, comodified, and transformed as they circulate globally. Examples include Indian raga, Javanese gamelan, and Gnawa trance music. Course work will include listening, reading, and critical writing assignments. Where possible, visiting musicians will be invited to demonstrate and discuss the music under consideration.
Cross-Listed as: MUS 4
Distributive: Dist:ART; WCult:NW

ASCL 70.10 - Music from the Lands of the Silk Road
Instructor: Levin
Drawing from the world’s rich and diverse musical traditions, this course focuses on music and musical life in a particular geographic region or on a specific topic addressed from a cross-cultural and/or interdisciplinary perspective. The focus of this particular topic is on music from the lands of the Silk Road—the network of trade routes that crisscrossed Eurasia, linking East Asia, South Asia, and Central Asia with Persia, the Middle East, and Europe. Examples will be drawn from contemporary musical traditions of Central Asia, Korea, Japan, China, Azerbaijan, and India. No prior musical experience is required.
Cross-Listed as: MUS 45.06
Distributive: Dist:ART; WCult:NW

ASCL 70.11 - Catastrophe, Memory, and Narrative: Japanese and Jewish Responses to Atrocity
Instructor: ASCL Faculty
This course will examine Japanese and Jewish responses to twentieth-century atrocities. We will pay close attention to how catastrophic events are mourned and memorialized through narrative. We will analyze eyewitness accounts of the events, memoirs, fiction, feature films and filmed testimonies, photography museum exhibits, etc. We will discuss issues such as the nature of mourning and the process of mourning through art and culture; the memorializing of tragedy; the ethics of the representation of tragedy; revenge and survivor guilt. Throughout, we will be asking about the possibilities, and the difficulties, of comparing responses by different cultures to different types of atrocities. This will require accounting for differences in religious belief, notions of psychology, and literary and artistic form. Is the process of mourning universal? Are the responses to atrocity? Is comparing the Japanese and Jewish cases ethically suspect? How does a nation that has victimized mourn its own victimization?
Distributive: Dist:LIT; WCult:NW

ASCL 70.12 - Voices and Images from Asian Borderlands
Instructor: Xie
Borderlands are where modern nation-states are geographically defined and where their orders are both challenged and reinforced. This course studies the formation of modern nations in Asia and its consequences in the twentieth century from a “borderland perspective.” The cases to be studied include Hokkaido in Japan, Manchuria in mainland China, the Partition of India and Pakistan, the division of the two Koreas, the Taiwan island, and the highlands connecting East and South Asia commonly referred to as Zomia. The long historical process from colonial expansion to post-war demarcation across Asia, along with the ordinary people’s experience of this process, is witnessed by writers and artists from the borderlands with distinctive creativity and criticism. The disciplinary perspectives involved in the course range from literature, film, and art to history, anthropology, and linguistics. Enrollment is open, and there are no prerequisites. You do not need to know any Asian language to take the course.
Distributive: Dist:LIT; WCult:NW

ASCL 70.16 - Eat, Drink, Japan: An Interdisciplinary Approach
Instructor: Ericson
This course is an interdisciplinary survey of food and beverage in Japan from premodern times to the present. Through lectures, readings, discussions, and films, we will explore the subject from the multiple perspectives of history, culture, and contemporary politics and society. The topics covered will range from food production and consumption to religious and artistic representations and the construction of cultural identities in Japan’s past and present.
Distributive: Dist:SOC; WCult:NW

ASCL 70.17 - Women in Asian Cities
Instructor: Parikh
We live in a time of increasing urbanization and globalization, paralleled with prevailing poverty and uneven access to infrastructure. In this course, we will explore these issues through a focus on women across Asia. We will also examine how politics of race, class, caste, religion, and migration status shape urban experiences for these women. Major thematic areas for this course include migration, informal economies, mobility, culture, and urban nature. The class will draw on academic scholarship, newspaper articles and popular culture to introduce gendered perspectives on cities across Asia.
including Istanbul, Tehran, Mumbai, Hong Kong, and Manila.

Cross-Listed as: GEOG 80.06 WGSS 37.06

Distributive: Dist:SOC; WCult:CI

**ASCL 70.18 - Social Revolutions East and West: Japan and the United States in the 1960s**

**Instructor: Dorsey**

This course examines social movements in the United States and Japan during the turbulent 1960s. Activists and artists engaged with civil rights causes, anti-war movements, and campaigns to end discrimination of all sorts, blending these political agendas with the production of culture and the deployment of new technologies. As a result, new cognitive praxes came into place, and the patterns of knowledge production were forever changed. With a focus on the genres of music, comics/manga, and literature as they evolved in America and Japan in the 1960s, students in the course will learn to recognize how knowledge and worldviews are shaped by the systems of culture that generate them. There are no prerequisites for this course.

Cross-Listed as: COLT 57.10

Distributive: Dist:INT or LIT; WCult:CI

**ASCL 70.20 - Buddhist Meditation Theory**

**Instructor: Seton**

The Buddhist theory of meditation was first articulated 2,500 years ago and has since been adapted to numerous cultural contexts in Asia and the West. This course offers a survey of the three traditional religious frameworks for meditation practice, but also pays some attention to the secularized applications of mindfulness techniques in modern society and to the current status of scientific studies on the effects of those techniques. The course primarily concerns theoretical questions and controversies surrounding Buddhist meditation, but students will get the chance to experiment with secular mindfulness techniques outside of class and to attend a field trip to a local Buddhist temple. Open to all.

Distributive: Dist:TMV; WCult:NW

**ASCL 70.22 - Developing Vietnam: History, Environment, and Culture**

**Instructor: Miller**

This interdisciplinary course explores the history, society, and culture of Vietnam, with particular attention to the theme of development in Vietnam since the 1980s. It is part of a teaching and learning partnership between Dartmouth and Fulbright University Vietnam, a Vietnamese liberal arts university in Ho Chi Minh City. Throughout the term, Dartmouth and Fulbright students will interact and co-learn with each other via online discussions, collaborative assignments, and a small group research project.

Distributive: Dist:SOC; WCult:NW

**ASCL 70.23 - Travel, Migration, and Diaspora in the Transpacific Asias**

**Instructor: Eom**

This interdisciplinary course provides an overview of migration and diaspora studies in Asia and across the Pacific. The course places travelers and migrants at the heart of modern Asian history and culture while examining the social, cultural, political, and economic implications of the movement of people across geographic boundaries. The course deals with a series of case studies that include, but are not limited to, imperial travelers, missionaries, colonial settlers, labor migrants, American GIs, international adoptees, orphans and refugees, transnational domestic workers, return migrants, and Asian diasporas in the Americas. With a strong emphasis on transpacific migrants and their residential, commercial, religious, and social spaces, the course will engage in an interdisciplinary dialogue and utilize a range of activities and media—site visits, walking tours, interviews, autobiographies, literature, and film—to offer students fruitful methods for understanding multifaceted aspects of transnational connections and diasporic identities that migrants have cultivated between Asia and the world.

Distributive: Dist:INT or SOC; WCult:NW

**ASCL 80.01 - Colonial Photography**

**Instructor: Hockley**

This course examines the uses of photography by colonial governments, anthropologists, commercial photographers, and tourists in nineteenth-century Asia and the Middle East. It also addresses indigenous uses of photography that conform with and/or react against colonialist uses of the medium. The primary focus of the course is on photographs but consideration is also given to the diffusion of photographic images into other media including news publications, government documents, scientific studies, travelogues, fiction, textbooks, and museum displays.

Distributive: Dist:INT or ART; WCult:CI

**ASCL 80.03 - Arts and Culture of Korea’s Last Dynasty**

**Instructor: Kim**

This course provides an introduction to the arts and culture of the Joseon dynasty (1392-1910), which was founded on Confucianism. We will examine Confucian philosophy and how Confucian ideas shaped the social hierarchy, gender roles, and aesthetic values through exploration of the architecture of royal palaces and aristocratic houses, paintings both sacred and secular, ceramics, textiles and other crafts. Use of color, symbolic motifs, and stories in
the arts and culture will be investigated. Understanding Korea’s final 500-year dynasty will deepen your comprehension of contemporary Korean culture as it manifests the legacy Joseon Korea.

Cross-Listed as: ARTH 82.01
Distributive: Dist:INT or ART; WCult:NW

ASCL 80.04 - Lu Xun and Hu Shi
Instructor: ASCL Faculty

Through the writings of Lu Xun (1881-1936) and Hu Shi (1891-1962), two of the most important scholar-writers of the twentieth century, this course will examine several issues that were raised during the first two decades of this century by Chinese intellectuals who felt an acute, ever-increasing inadequacy of their own cultural heritage in the face of Western democracy and technological and scientific advancements. Those issues, raised more than seven decades ago, have persistently engaged the central attention of modern Chinese intellectuals, and include discussions of China's modernization (or Westernization) and of China's vernacular language movement, debates about various political and social philosophies, questions surrounding the so-called new culture movement, and other such issues. The seminar will be conducted in English; however, readings will include several original articles in Chinese. Permission of instructor required.

Distributive: Dist:LIT; WCult:NW

ASCL 80.05 - Regional Identity in Modern Chinese Literature
Instructor: Gibbs

How does the concept of “region” in contemporary Chinese literature connect to discussions of gender, ethnicity, tradition/modernity, country/city, and north/south? In this course, we will examine ways in which contemporary writers have evoked place through literature, looking at how social discussions occur across/between spaces. Students will be encouraged to explore authors, places, and subtopics related to their own interests in the final papers. No knowledge of the Chinese language is required for this course, although students who can read Chinese are encouraged to make use of Chinese-language materials.

Distributive: Dist:LIT; WCult:NW

ASCL 80.06 - Chinese Calligraphy and Manuscript Culture: Orchid Pavilion
Instructor: ASCL Faculty

Courses numbered 81 or above are advanced seminar courses. May be repeated for credit if topic varies.

As the most well-known masterpiece of Chinese calligraphy, the Orchid Pavilion by Wang Xizhi (Wang Hsi-chih), the Sage of Chinese Calligraphy, has become a unique epitome of Chinese art, culture and intellectual tradition. This advanced Chinese calligraphy seminar will investigate the contents, contexts and controversies of the art, culture, style and technique of the Orchid Pavilion.

Distributive: Dist:ART; WCult:NW

ASCL 80.07 - The History of Development in Asia
Instructor: Miller

For more than a century, development has been a central theme in the study of Asian politics, culture, and societies. But what is “development,” exactly? This seminar explores the history of development in Asia by treating development as a species of politics, rather than a socio-economic process. In the assigned readings and discussions, we will examine the complex interactions between development and empire in various places in Asia, in both colonial and postcolonial contexts. We will also compare recent efforts by scholars to develop new methodological approaches to the study of development ideas and practices in Asia. In addition to completing the assigned readings, each student will write an article-length paper about a particular topic or event in the history of development in Asia. This paper must be based on original research in primary sources.

Distributive: Dist:INT or SOC; WCult:NW

ASCL 80.08 - Imperialism in Modern East Asia
Instructor: Mills

An examination of Western and Japanese imperialism in East Asia from the Opium War to the Pacific War. Subjects to be treated include the imposition of unequal treaties, the "scramble for concessions" in China, the creation of Japan's formal and informal empires, and the rise and fall of the Greater East Asia Co-Prospere Sphere. Open to all classes.

Cross-Listed as: HIST 077
Distributive: Dist:INT or SOC; WCult:NW

ASCL 89 - Independent Research
Instructor: ASCL Faculty

Independent research under the direction of members of the staff. Students should consult with a member of the staff in the term preceding the term in which the independent work is to be done.

ASCL 90 - Honors Thesis I
Instructor: ASCL Faculty

The ASCL Honors Program consists of a two-term, two-course sequence comprised of ASCL 90 and ASCL 91, during which the student completes an honors thesis. To qualify for the Honors Program the applicant must have a GPA of 3.0 overall and GPA of 3.4 in the major.
Admission to the program is contingent upon acceptance of the applicant’s thesis proposal. Students should develop a thesis proposal in consultation with a prospective advisor. The primary advisor for an honors thesis must be an ACSL affiliated faculty member. Secondary advisors drawn from ASCL or other departments and programs are encouraged when the student’s project warrants additional expertise. Proposal guidelines can be found on the ASCL website.

As part of the Honors curriculum, ASCL 90 and 91 carry high expectations regarding student performance with regard to writing, deadlines, accountability, and critical reflection. The thesis advisor will assess the student’s progress at the end of the first term of the Honors course sequence. If insufficient progress has been made on the thesis, students will be dropped from the program and given a grade for the work completed in the first term. The grade can count toward the ASCL major but not as a substitute for the ASCL Culminating Experience. A public presentation of the honors thesis at the end of the second term is a requirement of the Honors program. Completion of both ASCL 90 and 91 replace the ASCL culminating experience. ASCL 91 is an addition to ASCL’s ten-course major.

Students wishing to pursue a fall/winter thesis should submit their proposal to the Steering Committee no later than the fifth week of their junior-year spring term. Proposals for winter/spring theses should be submitted no later than the fifth week of the applicants senior-year fall term. Admission to the Honors Program is by vote of ASCL Steering Committee.

Students are awarded one course credit for successful completion of this course upon completion of ASCL-091. Students register for ASCL-090 and receive a grade of “ON” (ongoing) at the end of the term. Students then register for ASCL-091 the subsequent term to complete the coursework. A final grade will replace the “ON” in ASCL-90 upon completion of ASCL-091.

CHIN - Chinese

CHIN 1 - First-Year Courses in Chinese
Instructor: Yan

An introduction to spoken and written Modern Standard Chinese. Conversational drill and comprehension exercises in classroom and laboratory provide practice in pronunciation and the use of the basic patterns of speech. Intensive reading is conducted for textbook lessons. Grammar is explained, and written exercises given. Traditional characters are learned in Chinese 1 and 2; simplified characters are introduced in Chinese 3. Classes are conducted increasingly in Chinese. Mandatory student-run drill sessions meet Monday to Thursday for fifty minutes each day for all beginning Chinese language classes. Students who plan to use these courses to fulfill the language requirement may not take it under the Non-Recording Option.

Satisfactory completion of Chinese 3 fulfills the language requirement.

CHIN 2 - First-Year Courses in Chinese
Instructor: Yan, A. Li

An introduction to spoken and written Modern Standard Chinese. Conversational drill and comprehension exercises in classroom and laboratory provide practice in pronunciation and the use of the basic patterns of speech. Intensive reading is conducted for textbook lessons. Grammar is explained, and written exercises given. Traditional characters are learned in Chinese 1 and 2; simplified characters are introduced in Chinese 3. Classes are conducted increasingly in Chinese. Mandatory student-run drill sessions meet Monday to Thursday for fifty minutes each day for all beginning Chinese language classes.

Satisfactory completion of Chinese 3 fulfills the language requirement.

CHIN 3 - First-Year Courses in Chinese
Instructor: A. Li

An introduction to spoken and written Modern Standard Chinese. Conversational drill and comprehension exercises in classroom and laboratory provide practice in pronunciation and the use of the basic patterns of speech. Intensive reading is conducted for textbook lessons. Grammar is explained, and written exercises given. Traditional characters are learned in Chinese 1 and 2; simplified characters are introduced in Chinese 3. Classes are conducted increasingly in Chinese. Mandatory student-run drill sessions meet Monday to Thursday for fifty minutes each day for all beginning Chinese language classes.

Satisfactory completion of Chinese 3 fulfills the language requirement.

CHIN 4 - Advanced First-Year Chinese
Instructor: Chen, A. Li
This course is designed for students with varying, minimal levels of competence in speaking, listening, reading, and writing. Weekly class hours include four sixty-five minute sessions with the master teacher and up to four fifty-minute drill and/or conversation sessions. There are weekly exams, a midterm, and a final, as well as writing assignments, oral presentations, and supplementary work assigned as needed. This course seeks to achieve two goals: 1) to help students equalize their levels of the required speaking, listening, reading, and writing skills; 2) to allow them to raise these levels and thereby significantly increase their understanding of Modern Standard Chinese. Chinese 4 is an accelerated first-year course. Satisfactory completion of Chinese 4 satisfies the Foreign Language Requirement and places the student into the 20-level series.

Students who plan to use this course to fulfill the language requirement may not take it under the Non-Recording Option.

**CHIN 22 - Intermediate Modern Chinese (Second-year level)**

Instructor: Chen, Yan

CHIN 22 and CHIN 23 cover a full second-year level course, using the textbook *Integrated Chinese, Level Two* and a variety of other materials. The course is designed for students who have completed CHIN 4 or the equivalent. Students who have only completed CHIN 3 may be eligible for this course with permission of the instructor. Class hours include four sixty-five or five fifty-minute sessions with the master teacher and up to four fifty-minute drill and/or conversation sessions. There are weekly exams, a midterm, and a final, as well as writing assignments, oral presentations, and supplementary work assigned as needed. This series is intended to raise the student’s levels in speaking, listening, reading, and writing skills and, thereby, significantly increase their understanding of Modern Standard Chinese.

Distributive: Dist:LIT; WCult:NW

**CHIN 31 - Advanced Modern Chinese (Third-year level)**

Instructor: Instructor TBD

This course is not repeatable. Under some circumstances and with the permission of the instructor, this series (31, 32 and 33) may be taken non-sequentially. Readings will be selected from literary, political, and historical publications. There will be regular exams, writing exercises, oral presentations, and supplementary work assigned as needed. Prerequisite: CHIN 23 or permission of the instructor.

Distributive: Dist:LIT; WCult:NW

**CHIN 32 - Advanced Modern Chinese (Third-year level)**

Instructor: Instructor TBD

This course is not repeatable. Under some circumstances and with the permission of the instructor, this series (31, 32 and 33) may be taken non-sequentially. Readings will be selected from literary, political, and historical publications. There will be regular exams, writing exercises, oral presentations, and supplementary work assigned as needed. Prerequisite: CHIN 23 or permission of the instructor.

Distributive: Dist:LIT; WCult:NW

**CHIN 33 - Advanced Modern Chinese (Third-year level)**

Instructor: Instructor TBD

This course is not repeatable. Under some circumstances and with the permission of the instructor, this series (31, 32 and 33) may be taken non-sequentially. Readings will be selected from literary, political, and historical publications. There will be regular exams, writing exercises, oral presentations, and supplementary work assigned as needed. Prerequisite: CHIN 23 or permission of the instructor.

Distributive: Dist:LIT; WCult:NW

**CHIN 40 - Advanced Chinese**

040 courses are “topics courses” designed to develop mastery of the spoken and written language. Students who have completed at least two 30-level courses are encouraged to continue their language study through 040 courses. Depending on the topic, readings are drawn from literary, cultural, political, business, and historical publications. Assigned work includes written and oral presentations.
CHIN 40.03 - Advanced Reading in Modern Chinese Short Stories (Fourth-year level)
Instructor: A. Li
This course aims to help students develop an ability to use Chinese at an advanced level – critical reading of original literary works, writing and speaking to express a broad range of topics, as well as literature appreciation, through reading selected modern Chinese short stories by well-known Chinese writers. Not open to students who have received credit for CHIN 043.
Distributive: Dist:LIT; WCult:NW

CHIN 40.04 - Advanced Chinese for Commerce and Economics
Instructor: Yan
This course will improve students’ four communication skills (reading, writing, listening, and speaking), with a particular emphasis on speaking and writing, while also introducing students to an array of authentic and relevant economy-related topics and materials in Chinese. Course materials will include essays, dialogues, business cases and newspaper articles, as well as supplementary audio-visual materials. Students will learn about the general economic and business environment in China, and will use the case study method to gain insights into the business models of specific, influential Chinese companies and international firms that have successfully entered the Chinese market. The course will further develop students’ Chinese proficiency at an advanced level. The combination of textbook and supplementary readings, and topic-based knowledge beyond “pure language” will achieve the goal of enhancing both students’ language ability and their understanding of the world of Chinese business.

CHIN 41 - Advanced Chinese (Fourth-year level)
Instructor: TBD
Advanced readings from literary, political, and historical publications.
Prerequisite: Two third-year level Chinese courses or permission of the instructor.
Distributive: Dist:LIT; WCult:NW

CHIN 42 - Advanced Chinese (Fourth-year level)
Instructor: Instructor TBD
Advanced readings from literary, political, and historical publications.
Prerequisite: Two third-year level Chinese courses or permission of the instructor.
Distributive: Dist:LIT; WCult:NW

CHIN 45.01 - Introduction to Classical Chinese
Instructor: Instructor TBD
An introduction to the basic grammar and vocabulary of the Classical Chinese language, using examples from a selection of texts from the Warring States Period (5th to 3rd century B.C.E.).
Distributive: Dist:LIT; WCult:NW

CHIN 49 - Independent Advanced Study in Chinese Language and Literature
Instructor: ASCL Faculty
Available to students who wish to do advanced or independent study in Chinese. Chinese 49 may be considered a non-language course with approval of the advisor. The student must first submit a proposal to the Major/Minor advisor, and the section faculty, before obtaining permission from the faculty member with whom he or she wishes to work.
Distributive: Dist:LIT; WCult:NW

JAPN - Japanese

JAPN 1 - First-Year Courses in Japanese
Instructor: Ishida, Watanabe
An introduction to written and spoken modern Japanese. In addition to mastering the basics of grammar, emphasis is placed on active functional communication in the language, reading comprehension, and listening comprehension. Conversational drill and comprehensive exercises in classroom and laboratory provide practice in pronunciation and the use of the basic patterns of speech. Classes are conducted in Japanese. Reading in simple materials is extensive. Mandatory student-run drill sessions meet four times a week for fifty minutes for all beginning Japanese language classes.

JAPN 2 - First-Year Courses in Japanese
Instructor: Ishida, Watanabe
An introduction to written and spoken modern Japanese. In addition to mastering the basics of grammar, emphasis is placed on active functional communication in the language, reading comprehension, and listening comprehension. Conversational drill and comprehensive exercises in classroom and laboratory provide practice in pronunciation and the use of the basic patterns of speech. Classes are conducted in Japanese. Reading in simple materials is extensive. Mandatory student-run drill sessions meet four times a week for fifty minutes for all beginning Japanese language classes.

JAPN 3 - First-Year Courses in Japanese
Instructor: Ishida, Watanabe
An introduction to written and spoken modern Japanese. In addition to mastering the basics of grammar, emphasis is placed on active functional communication in the language, reading comprehension, and listening comprehension. Conversational drill and comprehensive exercises in classroom and laboratory provide practice in pronunciation and the use of the basic patterns of speech. Classes are conducted in Japanese. Reading in simple materials is extensive. Mandatory student-run drill sessions meet four times a week for fifty minutes for all beginning Japanese language classes. Students who plan to use this course to fulfill the language requirement may not take it under the Non-Recording Option. Satisfactory completion of Japanese 3 fulfills the language requirement.

Never serve in partial satisfaction of Distributive or World Culture requirements

**JAPN 22 - Intermediate Modern Japanese**
Instructor: Ishida

A continuation of the fundamentals of grammar and further acquisition of spoken communication skills, aural comprehension, and proficiency in reading and writing. This is an intensive course that integrates homestays and the local environment into course materials. Students will be expected to master a wide variety of reading and video materials.

Distributive: WCult:NW

**JAPN 23 - Intermediate Modern Japanese**
Instructor: Watanabe

A continuation of the fundamentals of grammar and further acquisition of spoken communication skills, aural comprehension, and proficiency in reading and writing. This is an intensive course that integrates homestays and the local environment into course materials. Students will be expected to master a wide variety of reading and video materials.

Distributive: WCult:NW

**JAPN 31 - Advanced Japanese**
Instructor: Watanabe

A progression of materials from JAPN 23. Intensive review and continued study of modern Japanese at the advanced level. Conversation skills will continue to be an important aspect of this course, but more emphasis will be placed on reading and writing skills. Reading materials will be drawn from current newspapers, contemporary fiction, essays from journals, and excerpts from poetry. Short audiovisual selections will be used as well. Assigned work includes written compositions and oral presentations.

Prerequisite: JAPN 23 or permission of instructor.

Distributive: Dist:LIT; WCult:NW

**JAPN 32 - Advanced Japanese**
Instructor: Ishida

A progression of materials from JAPN 31. A variation of materials used in JAPN 31. Note: Although the materials used in this course differ from the materials used in JAPN 31, the general level of proficiency required to enroll in either JAPN 31 or JAPN 32 is roughly equivalent. Students may take JAPN 32 even if they have been unable to enroll in JAPN 31.

Prerequisite: JAPN 31 or permission of instructor.

Distributive: Dist:LIT; WCult:NW

**JAPN 33 - Advanced Japanese**
Instructor: Ishida

A continuation and progression of materials used in JAPN 31 and JAPN 32. Note: the level of proficiency required to enroll in JAPN 33 is higher than the proficiency required for either JAPN 31 or JAPN 32.

Prerequisite: JAPN 32 or permission of instructor.

Distributive: Dist:LIT; WCult:NW

**JAPN 40 - Advanced Japanese**

040 courses are “topics courses” designed to develop mastery of the spoken and written language. Students who have completed at least two 30-level courses are encouraged to continue their language study through 040 courses. Depending on the topic, readings are drawn from literary, cultural, political, business, and historical publications. Assigned work includes written and oral presentations.

**JAPN 41 - Advanced Japanese**
Instructor: Ishida

A variation of materials used in JAPN 33. Note: although the materials used in this course differ from the materials used in JAPN 33, the general level of proficiency required to enroll in either JAPN 33 or JAPN 41 is roughly equivalent. Students may take JAPN 41 even if they have been unable to enroll in JAPN 33.

Prerequisite: Two third-year level Japanese courses, or permission of the instructor.

Distributive: Dist:LIT; WCult:NW

**JAPN 42 - Advanced Japanese**
Instructor: Watanabe

A progression of materials from JAPN 41. Designed to develop mastery of the spoken and written language. Assigned work includes written compositions and oral presentations.

Prerequisite: JAPN 41 or permission of the instructor.
Distributive: Dist:LIT; WCult:NW

**JAPN 43 - Advanced Japanese**

Instructor: Watanabe

A progression of materials from JAPN 41 and JAPN 42. Designed to develop mastery of the spoken and written language. Assigned work includes written compositions and oral presentations.

Prerequisite: JAPN 41 or JAPN 42, or permission of the instructor.

Distributive: Dist:LIT; WCult:NW

**JAPN 45.01 - Classical Japanese Grammar and Translation Workshop**

Instructor: Schmidt-Hori

The students will first learn the basic grammar and vocabulary of classical Japanese through the textbook and workbook, rather than lectures given by the instructor. Class time is spent on comparing the students’ answers to clarify specific difficulties and doing new exercises as a group. Once the basics are introduced and learned, the students will translate excerpts of classical literature, such as the *Tale of Genji* and the *Tale of the Bamboo Cutter*, as homework and compare their works in class.

Distributive: Dist:LIT; WCult:NW

**JAPN 49 - Independent Advanced Study in Japanese Language and Literature**

Instructor: ASCL Faculty

Available to students who wish to do advanced or independent study in Japanese. The student must first submit a proposal to the Major/Minor Advisor, and the section faculty, before obtaining permission from the faculty member with whom he or she wishes to work.

Distributive: Dist:LIT; WCult:NW

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**Biological Sciences - Undergraduate**

Chair: Thomas P. Jack


To view Biological Sciences Undergraduate courses, click here. (p. 159)

To view Biological Sciences Graduate requirements, click here. (p. 727)

To view Biological Sciences Graduate courses, click here. (p. 728)

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**Requirements for Majors in the Department of Biological Sciences**

The biological sciences are a diverse collection of scientific disciplines that interact and intermingle in tremendously complex and interesting ways. To provide the maximum potential for students to explore this vast area of science, the Department of Biological Sciences offers a flexible major that allows students to select coursework to fit their individual interests and career aspirations. Before declaring an area of concentration, students develop their course plan in consultation with one or more faculty advisors.

Prerequisites: CHEM 5 and CHEM 6 (or equivalent), and one quantitative course from among BIOL 29, COSC 1, ENGS 20, EARS 17, QSS 15, MATH 4, MATH 8 or above. MATH 10 (or equivalent) satisfies the quantitative requirement. Students who elect to include BIOL 29 in their area of concentration (see below) must fulfill this prerequisite with one of the other courses listed above. Although not required for the major, some upper-level Biology courses require CHEM 51-52 (or equivalent). In addition, because many graduate and professional schools require CHEM 51-52 for admission, we highly recommend that students consider taking these courses. Students must pass all prerequisite courses for the major in order to graduate.

Biology 11: BIOL 11 (The Science of Life) is one pathway for entering the Biology curriculum. BIOL 11 counts toward the major if it is taken anytime during the first year (including after taking one or more Foundation courses) or as the first biology course. Only one offering of BIOL 11 may be taken for credit. Students interested in the subject matter of Biology Foundation courses may wish to take the Biology Placement test (available in Canvas) to help them make decisions about course selection.

Foundation Courses: Students take three courses from among five foundation courses: BIOL 12/BIOL 19 (Cell Structure and Function); BIOL 13 (Gene Expression and Inheritance); BIOL 14 (Physiology); BIOL 15 (Genetic Variation and Evolution); BIOL 16 (Ecology). The
foundation courses are not sequenced and may be taken in any order. Students interested in Bio FSP are encouraged to take BIOL 16 in fall or spring of their first year and BIOL 15 in their first or second year. In deciding which three courses to select from this list, students should discuss with their faculty advisors which foundation courses would be most appropriate for their area of concentration. Not all foundation courses need to be completed before the student moves on to courses in their area of concentration.

Area of Concentration: To complete the major, students develop an area of concentration by taking seven additional courses, including two biology courses numbered 50 or above. Biology courses numbered 10 or below may not be counted towards the major. Below we list a number of possible areas of concentration that students may find useful in guiding their course selection. Please keep in mind that this list is not rigid or exhaustive. The courses listed for each area are suggestions to help you get started. Students are not required to limit themselves to the courses listed under a single area. Students may also develop an area of concentration that is not listed. Any Biology faculty member may serve as your advisor even if they are not listed under a specific area of concentration (provided they feel comfortable advising you in that area). Our hope is that together with your advisor you will design a major that fulfills your unique interests and goals. Faculty members with interests in the listed areas are given below; students interested in other areas should ask the Department Chair or the departmental Undergraduate Committee to suggest a faculty member who would be appropriate to advise the student in developing their course plan. In recognition of the interdisciplinary nature of the life sciences, up to two suitable advanced courses from other departments may be included in the area of concentration when appropriate to the student’s objectives, or a modified major may be constructed (see below). One term of Independent Research (BIOL 95) or Honors Research (BIOL 97) may also be included among the seven courses.

Culminating Experience
To satisfy the culminating experience requirement, students must take a course numbered 50 or above, normally during their senior year. Any Biology course numbered 50 or above that is appropriate for the student’s area of concentration will satisfy the culminating experience requirement. Each student will determine with their faculty advisor which course is suitable as a culminating experience for their area of concentration and interests. These courses include the Biology foreign study program, independent research courses, courses that focus on the primary literature in a discipline, and courses with substantial laboratory components and/or individual projects. The culminating experience course should be taken in a student’s senior year, although a course taken in the junior year may in exceptional circumstances satisfy the culminating experience and requires the approval of the Department Chair or the departmental Undergraduate Committee.

Independent Research and the Biology Honors Program
Biology majors are encouraged to undertake independent research in biology either as part of the Honors Program or separately. Participants in the Honors Program should apply to enroll in BIOL 97/98. The subject of the honors research project should be directly relevant to the student’s area of concentration. Those who conduct research outside of the Honors Program should enroll in BIOL 95/96.

Work on an Honors thesis normally extends through three terms or more. Candidates for Honors must meet the minimum College requirements. Application to enroll in BIOL 95/96 or BIOL 97/98 should be made at least one month prior to the beginning of the term in which the course is to be elected. Plans for research should be made in the term before the project begins. Independent research conducted off campus during a leave/transfer term without the direct supervision of a faculty advisor from the Dartmouth College Department of Biological Sciences cannot be used to earn credit for BIOL 95, BIOL 96, BIOL 97 or BIOL 98.

BIOL 97 (or BIOL 95) may be counted only once among the seven courses for the area of concentration, but two terms of Independent Research may be taken for course credit towards graduation.

Each Honors candidate shall submit a thesis to a committee at least two weeks before the end of the last term. The committee will be composed of three faculty members, including the thesis supervisor. At least two members of this committee must be members of the Biology faculty. Each candidate’s Honors Program concludes with the candidate making a public presentation of her or his work, followed by an oral examination, conducted by the thesis committee, on the thesis work and related topics. The quality of the written thesis and the student’s grasp of his or her research program as determined by their performance on the oral exam determine if the student’s degree is awarded with honors.

Requirements for a Biology Modified Major
Students who wish to complement their interest in the life sciences with several courses in one or more disciplines may consider a modified major. For a modified major, the prerequisite and foundation course requirements remain the same. The area of concentration consists of five advanced Biology courses (additional foundation courses and courses numbered 20 and above) and four suitable advanced courses from another department or combination of departments. At least two of the advanced Biology courses should be numbered 50 and above; one of these is the culminating experience, normally taken in the senior year. Courses outside the Biology Department may not be
substituted for foundation courses or for the five advanced Biology courses in their area of concentration.

**Biology Major Modified with Math**

Mathematics is the “Language of Science”. Students who are more quantitatively oriented may want to consider modifying their Biology major with Mathematics. To facilitate this, the Biological Sciences and Mathematics Departments have agreed on the following structure for a Biology modified with Mathematics major. In addition to the biology courses in their area of concentration, students choosing this option will take four courses from among the offerings in Mathematics. Prerequisites and foundation course requirements for the Biology major remain the same. All students choosing this option must take MATH 22 (Linear Algebra with Applications) and MATH 23 (Differential Equations). The other two mathematics courses should be chosen in consultation with your Biology advisor depending on your area of concentration. Any two courses in the following list of Mathematics Department courses are appropriate:

Discrete Methods and Modeling: MATH 20 (Probability), MATH 36 (Mathematical Models in the Social Sciences), MATH 76 (Topics in Applied Mathematics)

Probability and Statistics: MATH 20 (Probability), MATH 28 (Introduction to Combinatorics), MATH 40 (Probability and Statistical Inference), MATH 50 (Introduction to Linear Models), MATH 70 (Elements of Multivariable Statistics and Statistical Learning)

Dynamics: MATH 46 (Introduction to Applied Mathematics), MATH 53 (Chaos!), MATH 76 (Topics in Applied Mathematics)

**Requirements for the Biology Minor**

The prerequisites for the Biology minor are CHEM 5 and CHEM 6 (or equivalent) and one quantitative course from among BIOL 29, COSC 1, ENGS 20, EARS 17, QSS 15, MATH 4, MATH 8 or above. MATH 10 (or equivalent) satisfies the quantitative requirement. In addition, students will complete two foundation courses and four additional Biology courses (BIOL 11 or above). Students may choose to use BIOL 29 as a prerequisite or as one of the four additional Biology courses, but not both. Students who elect to count BIOL 29 as one of the four additional Biology courses must fulfill the quantitative prerequisite with one of the other courses listed above. Students do not need to develop an area of concentration for the minor but they may do so if they wish. Courses outside the Biology Department may not be substituted for foundation courses, or the four additional Biology courses.

**Academic Standing**

Satisfactory completion of the Biology major or modified major requires obtaining a final grade point average of at least 2.00 in BIOL 11 (if taken for the major) and all foundation and area of concentration courses applied to the major. Post-matriculation transfer credits may not be used for BIOL 11 or the Foundation courses. No more than two transfer credits may be used for area of concentration courses.

**Credit and Advanced Placement**

The Department gives no credit for courses taken at another college or university prior to first year matriculation at Dartmouth.

**EXAMPLES OF COURSES FOR AREAS OF CONCENTRATION**

Possible faculty mentors are listed in parentheses.

*Note: BIOL 40 requires CHEM 51-52/57-58 as a prerequisite.

**BIOL - Biological Sciences - Undergraduate Courses**

To view Biological Sciences Undergraduate requirements, [click here.](p. 157)

To view Biological Sciences Graduate requirements, [click here.](p. 727)

To view Biological Sciences Graduate courses, [click here.](p. 728)

**BIOL 2 - Human Biology**

Instructor: Witters

A course designed to help students (biologists and non-biologists) understand the biological basis of human health and disease. The course will emphasize the fundamental aspects of biochemistry, genetics, cell and molecular biology, physiology, anatomy, reproductive biology, and structure/function of various organs as they relate to humans. Particular emphasis will be placed on specific topics in human health and disease and how these issues affect us all individually in our own health and collectively in our international society. Open to all students without prerequisite. BIOL 2 does not count for biology major or minor credit.

Distributive: Dist:SCI

**BIOL 11 - The Science of Life**

Biology, like all of science, is a problem-solving endeavor. This course introduces students to a major problem in biology and considers it from many different perspectives, viewpoints and biological levels of organization. Along the way, students are exposed to many of the major concepts in biology, from molecules to ecosystems. Each offering will address a different major problem. No prerequisites

Note: BIOL 11 (The Science of Life) is one pathway for entering the Biology curriculum. BIOL 11 counts toward the major if it is taken anytime during the first year (including after taking one or more Foundation courses) or
as the first biology course. Only one offering of BIOL 11 may be taken for credit. Students interested in the subject matter of Biology Foundation courses may wish to take the Biology Placement test (available in Canvas) to help them make decisions about course selection.

Distributive: Dist:SCI

BIOL 11.03 - Emerging Infectious Diseases: How Microbes Rule the World
Instructor: Guerinot and McClung

Emerging infectious diseases, which have shaped the course of humanity and caused untold suffering and death, will continue to challenge society as long as humans and microbes co-exist. This course will explore why infectious diseases emerge and re-emerge. The viruses, bacteria and eukaryotes that cause these diseases continually evolve in response to their hosts. Dynamic interactions between rapidly evolving infectious agents and changes in the environment and in host behavior provide such agents with favorable new ecological niches. In addition, dramatic increases in the worldwide movement of people and goods drive the globalization of disease.

Note: For many students, BIOL 11 will be the entrance course to the major. To help students determine if they are sufficiently prepared to enter a foundation course directly, the Biology department has established an online self-assessment exam for students. Students who have any concerns about their preparedness should take BIOL 11 before enrolling in a foundation course. BIOL 11 may be counted toward the biology major if it is taken either during the first year or as the first biology course counted toward the major. Only one offering of BIOL 11 may be taken for credit.

Prerequisite: No prerequisites

Distributive: SCI

BIOL 11.06 - Why can't we all just get along?
Cooperation and Conflict across the Biological Sciences
Instructor: R. Calsbeek

Cooperation and conflict are universal themes that arise when considering how entities at various levels of organization interact. This is particularly true in biology, from atoms interacting within a molecule, molecules interacting within a cell, or cells interacting within a multicellular organism, individuals interacting within groups, disease organisms interacting within their host, or nations interacting with one another. We will explore how the concepts of game theory apply at the biochemical, cellular and organismal levels to explore how groups of entities at these various levels interact, and how groups transition to individuals. All along the way we will discuss a lot of biology and see how biologists apply what they know to new problems.

Note: For many students, BIOL 11 will be the entrance course to the major. To help students determine if they are sufficiently prepared to enter a foundation course directly, the Biology department has established an online self-assessment exam for students. Students who have any concerns about their preparedness should take BIOL 11 before enrolling in a foundation course. BIOL 11 may be counted toward the biology major if it is taken either during the first year or as the first biology course counted toward the major. Only one offering of BIOL 11 may be taken for credit.

Prerequisite: No prerequisites.

Distributive: Dist:SCI

BIOL 11.07 - Major Events in the History of Life and the Human Genome
Instructor: Peterson

Over the course of the last 4.5 billion years, life has faced a number of challenges, and in response has evolved a number of remarkable innovations. These innovations are written in DNA, and thus molecular fossils for many of the major events in the history of life can be found within our very own genomes. This course will survey the human nuclear and mitochondrial genomes, using a gene or region from a chromosome as a “ticket” to a particularly important event or process in the history of life including the origin of life itself (Chromosome 14), the advent of protein synthesis (Chromosome 22), the invention of DNA (Chromosome 8), the rise of atmospheric oxygen (mitochondrion), the origin of species (Chromosome 2), the origin of animals and the rise of macroecology (Chromosome 12), and the origin of humans and human language (Chromosome 7).

Note: For many students, BIOL 11 will be the entrance course to the major. To help students determine if they are sufficiently prepared to enter a foundation course directly, the Biology department has established an online self-assessment exam for students. Students who have any concerns about their preparedness should take BIOL 11 before enrolling in a foundation course. BIOL 11 may be counted toward the biology major if it is taken either during the first year or as the first biology course counted toward the major. Only one offering of BIOL 11 may be taken for credit.

Prerequisite: No prerequisites.

Distributive: Dist:SCI

BIOL 11.08 - Animal Minds
Instructor: Jack and LaI dread

Darwin claimed that other species share the same "mental powers" as humans, only to different degrees. This course will examine the evidence for Darwin's claim, focusing on the evolutionary, neural, and molecular basis of animal
cognition. We will ask how and why organisms behave as they do, exploring the ways in which evolution has adapted organisms’ information gathering, perception, learning ability, memory, and decision making to both their physical and social world. Key examples will be drawn from navigation, tool-use, communication, and cultural imitation. An overarching emphasis will be placed on the active process of scientific discovery, especially how strong inference and multiple competing hypotheses enable scientists to make discoveries.

Note: For many students, BIOL 11 will be the entrance course to the major. To help students determine if they are sufficiently prepared to enter a foundation course directly, the Biology department has established an online self-assessment exam for students. Students who have any concerns about their preparedness should take BIOL 11 before enrolling in a foundation course. BIOL 11 may be counted toward the biology major if it is taken either during the first year or as the first biology course counted toward the major. Only one offering of BIOL 11 may be taken for credit

Prerequisite: No prerequisites

Distributive: Dist:SCI

BIOL 12 - Cell Structure and Function
Instructor: Bickel, Grotz, Bezanilla, He

BIOL 12 will provide a foundation in the fundamental mechanisms that govern the structure and function of eukaryotic cells. Topics include membrane transport, energy conversion, signal transduction, protein targeting, cell motility and the cytoskeleton, and the cell cycle. Emphasis will be placed on discussion of the experimental basis for understanding cell function. The laboratory section will provide students with hands-on experience in modern laboratory techniques including microscopy, cell fractionation, and protein purification. Open to all students without prerequisite. Biology 19 is a foundation course equivalent of Biology 12. Note: BIOL 12/BIOL 19, BIOL 13, BIOL 14, BIOL 15, BIOL 16 may be taken in any order.

Distributive: Dist:SLA

BIOL 13 - Gene Expression and Inheritance
Instructor: Griffin, Amodeo, Dolph, Jack

This course provides a foundation in genetics and molecular biology. Topics covered include the flow of genetic information from DNA to RNA to protein, transmission of genetic information from one generation to the next and the molecular mechanisms that control gene expression in bacteria and eukaryotes. These concepts will be integrated into a discussion of contemporary problems and approaches in molecular genetics. Laboratories utilize basic molecular biology techniques to further investigate topics discussed in lecture. Open to all students without prerequisite. Note: BIOL 12/BIOL 19, BIOL 13, BIOL 14, BIOL 15, BIOL 16 may be taken in any order.

Distributive: Dist:SLA

BIOL 14 - Physiology
Instructor: ter Hofstede, Hill

This course introduces students to the complexity of organisms by studying how their different organ systems strive to maintain internal homeostasis in the face of different environmental demands. The adaptive responses of selected organisms (humans, different animals and plants) to a variety of environmental factors will be studied from the molecular, cell, tissue, organ, and systems level of organization. Some of the topics to be covered include biological control systems (hormones, neurons) and coordinated body functions (circulation, respiration, osmoregulation, digestion). All systems studied will be integrated by analyzing how different organisms adapt to living in extreme environments (deserts, high altitude) or facing changing environmental demand (navigation, exercise). Open to all students without prerequisite. Note: BIOL 12/BIOL 19, BIOL 13, BIOL 14, BIOL 15, BIOL 16 may be taken in any order.

Distributive: Dist:SLA

BIOL 15 - Genetic Variation and Evolution
Instructor: Zhaxybayeva

This course examines fundamental population-level processes and mechanisms that give rise to diversity of living organisms. The class will explore the interplay of evolutionary forces acting on genetic variation for both single-gene traits and complex traits determined by multiple genes and environmental conditions. Evolution of the human population will serve as the main study system. The class periods will include problem-solving sessions and hands-on activities on experimental evolution, observational data analyses and computer-based evolutionary inferences. Open to all students without prerequisite. Note: BIOL 12/BIOL 19, BIOL 13, BIOL 14, BIOL 15, BIOL 16 may be taken in any order. NOTE: As of winter term 2019, this course no longer has a laboratory component and will not meet the SLA requirement.

Distributive: Dist:SCI

BIOL 16 - Ecology
Instructor: Pries, Ayres

This course examines fundamental concepts in the rapidly developing areas of ecology. These topics include the factors that limit the distributions and abundances of organisms, the effects that organisms have on ecosystems, the integration of ecosystems around the globe, and the conservation of species diversity. The class will also explore how the behavior and physiology of individual organisms shape both local and global patterns of
distribution and abundance. Laboratories focus on experimental and quantitative analyses of local ecosystems, with an emphasis on field studies. Open to all students without prerequisite. Note: BIOL 12/BIOL 19, BIOL 13, BIOL 14, BIOL 15, BIOL 16 may be taken in any order.

Distributive: Dist:SLA

**BIOL 19 - Honors Cell Structure and Function**

Instructor: Bezanilla

This honors introduction to cell biology is for students with a strong background in biology and chemistry. This course will discuss fundamental topics, including protein targeting, the cytoskeleton, membrane transport, cellular energetics, the cell cycle, and signal transduction. The course will emphasize experimental strategies to understand eukaryotic cell function, and the laboratory will provide hands-on experience in modern cell biological techniques, including microscopy, cell fractionation, and protein purification.

Biology 19 is open only to first-year students and enrollment is limited. Invitation to enroll will be based in part on performance on the Biology Placement Exam (online). Biology 19 is a foundation course equivalent of Biology 12.

Distributive: Dist:SLA

**BIOL 21 - Population Ecology**

Instructor: McPeek

This course explores the description of populations, population growth, and the determination of abundance. Examples will be drawn from a diversity of plant and animal taxa to illustrate the broad scope of population ecology, including its role as a foundation for evolutionary ecology and community ecology, and its contributions to applied problems in conservation biology, pest management, human demography, and the management of harvested populations. Throughout, this course will emphasize the development of verbal, graphical, and mathematical models to describe populations, generate predictions, test hypotheses, and formalize theory. No student may receive course credit for both BIOL 21 and BIOL 51. Offered in alternate years.

Prerequisite: BIOL 15 or BIOL 16

Distributive: Dist:SCI

**BIOL 22 - Methods in Ecology**

Instructor: Trout-Haney

This course is an introduction to sampling and survey methodologies for populations and communities in both aquatic and terrestrial environments. The course will be divided into week-long modules, each focusing on a particular group of organisms in the environment. A great deal of emphasis will be placed on hypothesis generation, experimental design and statistical analysis. Participation in the laboratory/field component is both required and critical as one of the primary benefits of this course will be "on the ground" training in field methods.

Prerequisite: BIOL 16

Distributive: Dist:SCI

**BIOL 23 - Social Evolution: Cooperation and Construction Among Animal Architects**

Instructor: Laidre

For the evolution of social life, cooperation raises a fundamental problem. Indeed, Darwin regarded cooperation as one of the greatest puzzles for his theory of evolution. If natural selection favors individuals that selfishly maximize their own reproductive success, then why should organisms cooperate at all? Yet evidence for cooperation is ubiquitous in many social animals, from insects to humans. This course will explore how and why cooperation evolves, with the goal of understanding general ecological and evolutionary principles, especially the conditions under which social organisms work together to help one another despite competition and conflicting interests. A central theme of the course will be cases of cooperation in which social animals architecturally construct their surroundings, by building long-lasting shelters.

Prerequisite: BIOL 15 or BIOL 16

Distributive: Dist:SCI

**BIOL 24 - Vertebrate Zoology**

Instructor: R. Calsbeek

This course will examine origins, diversity, structure and function within and among the vertebrate classes (including fish, amphibians, reptiles, birds and mammals). We will consider the evolution of the vertebrate body plan and innovations associated with common organ systems (e.g., skeletal, muscular, digestive, sensory, etc.) shared by different taxa. In addition, we will consider specialization of form and function to the diverse ecology of vertebrates as well as the manner in which very different taxa cope with similar habitats and environmental demands. In so doing, we will draw on evolutionary principles such as adaptation, convergent and parallel evolution and evolutionary constraints. The course will primarily consist of lecture and readings with examination of specimens and opportunities for off-campus field trips. Offered in alternate years.

Prerequisite: BIOL 15 or BIOL 16

Distributive: Dist:SCI

**BIOL 25 - Introductory Marine Biology and Ecology**

Instructor: Chen
A course designed both for biology majors and other students interested in the interrelationships between marine organisms and their physical and biological environments. The course emphasizes the marine environment as an ecosystem with special focus on communities in coastal margin, open ocean, and deep sea habitats ranging from polar to tropical latitudes. Applied issues relevant to human impact and conservation in marine ecosystems will also be covered. Offered in alternate years.

Prerequisite: One from among BIOL 12/BIOL 19, BIOL 13, BIOL 14, BIOL 15, or BIOL 16

Distributive: Dist:SCI

**BIOL 26 - Global Change Biology**

Instructor: Pries

We live in the Anthropocene era in which humans have an outsized effect on the environment. In this course, we will apply ecological concepts to understand the consequences of environmental changes for species and ecosystems. Through discussing scientific literature and exploring long-term ecological datasets, we will investigate how humans have altered the environment and the repercussions for biogeochemical cycling and species distributions, phenology, and interactions. We will also evaluate solutions for mitigating these consequences.

Prerequisite: BIOL 16, ENVS 2 or GEOG 3

Distributive: Dist:SCI

**BIOL 27 - Animal Behavior**

Instructor: R. Calsbeek

Behavioral sciences are extremely broad and the study of animal behavior requires an interdisciplinary approach that integrates psychology, ecology, evolutionary biology, neural science and the underpinnings of learning and memory science. We will draw on each of these fields as we explore topics ranging from signaling and cognition to mating behaviors and sexual selection to foraging and optimality theory. We will consider how proximate and ultimate causality structure behavior throughout the animal kingdom. Thus, the course will take an evolutionary approach to understand behavior in vertebrates and insects and other invertebrates; in fresh water and marine systems, and in terrestrial groups. Offered in alternate years.

Prerequisite: BIOL 15 or BIOL 16 or instructor permission

Distributive: Dist:SCI

**BIOL 28 - Macroevolution**

Instructor: Peterson

Macroevolution focuses on the evolutionary process from the perspective of the species and through the lens of deep time. More specifically, it focuses on the issue of whether life is organized hierarchically, and if so, can selection occur at any/all of these other levels, in addition to the level of the organism. This course is especially well suited for discussion and question, as the definition of macroevolution, as well as its very existence, is under intense discussion by both microevolutionists and macroevolutionists alike. Topics covered include punctuated equilibrium, species-level selection, homology, and mass extinctions.

Prerequisite: One from BIOL 12/BIOL 19, BIOL 13, BIOL 14, BIOL 15, BIOL 16, or EARS 2; or instructor permission.

Cross-Listed as: EARS 032

Distributive: Dist:SCI

**BIOL 29 - Biostatistics**

Instructor: Cottingham

The course will cover basic descriptive statistics, simple probability theory, the fundamentals of statistical inference, regression and correlation, t-tests, one-way analysis of variance, basic analyses of frequency data and non-parametric statistics, and the general philosophy of experimental design. We will explore these topics from the perspective of biological applications. Examples will be drawn from all sub-disciplines of biology (e.g. biochemical kinetics, development, physiology, ecology, and evolution).

Prerequisite: Two courses in biology numbered 11 or higher.

Distributive: Dist:QDS

**BIOL 31 - Physiological Ecology**

Instructor: Staff

What factors determine the distribution and abundance of organisms? What are the consequences of climate change for biological communities? This course is an exploration of environmental effects on fundamental physiological processes in plants and animals. Abiotic factors, such as temperature and water availability, interact with biotic forces, such as predation, herbivory, and competition, to constrain the ability of organisms to survive, grow, and reproduce. Physiological solutions that allow success in one environment may preclude it in another. This course seeks to build up from physiological principles to understand characteristics of populations, communities, and ecosystems. Laboratories will challenge students to generate and test their own hypotheses using contemporary theoretical frameworks and modern research apparatus. Offered in alternate years.

Prerequisite: One from among BIOL 12/BIOL 19, BIOL 13, BIOL 14, BIOL 15, or BIOL 16

Distributive: Dist:SLA
**BIOL 32 - Animal Communication**  
Instructor: ter Hofstede  
Animals, including humans, have evolved to communicate with each other in a multitude of ways. Using examples from across the animal kingdom, this course will consider the variety of communication systems observed in nature from physical, neurobiological, and evolutionary perspectives. Comparisons will be made between animals with similar or different solutions to problems in communication, including comparisons with human examples. The course consists of four parts. Part I will look at the physics behind signal generation/transmission in different modalities and the neural basis of signal reception, part II will consider evolutionary constraints in generating, receiving and processing signals, part III will consider these principles in the main contexts of communication (mating, conflict, social situations, interspecific interactions), and part IV will integrate this information and these concepts in the context of human communication. Offered in alternate years.  
Prerequisite: One from among BIOL 12/BIOL 19, BIOL 13, BIOL 14, BIOL 15, or BIOL 16, or PSYC 6  
Distributive: Dist:SCI

**BIOL 35 - Cellular and Molecular Neuroscience**  
Instructor: Hoppa  
This course focuses on cellular and molecular mechanisms that underlie the development and function of the nervous system. This includes aspects of gene expression (transcription, mRNA metabolism) and cell biology (cellular transport and cytoskeleton, cell cycle, signal transduction, and signaling pathways) as they pertain to neurons and glia. Lectures supplemented by in-class discussion of primary research articles will also serve as an introduction to microscopic, electrophysiological, molecular biological, and genetic techniques and animal models used to study the nervous system and neurological disorders. Not open to students who have received credit for PSYC 046 or BIOL 049.  
Prerequisite: One from among BIOL 12/BIOL 19, BIOL 14, PSYC 6.  
Cross-Listed as: PSYC 035  
Distributive: Dist:SCI

**BIOL 37 - Endocrinology**  
Instructor: Witters  
The molecular, biochemical, genetic and physiologic aspects of the endocrine system will be explored with an emphasis on human and mammalian biology. We will use examples of pathobiology arising from dysfunction of this system to draw attention to the normal modes of endocrine regulation. Topics will be drawn from seminal publications in the biomedical literature. The course will employ a hypothesis-based, problem-solving paradigm, involving, in part, the study of experimental techniques used in investigation.  
Prerequisite: BIOL 12/BIOL 19. A prior course that emphasizes genetics is recommended. Otherwise permission of instructor.  
Distributive: Dist:SCI

**BIOL 40 - Biochemistry**  
Instructor: Schaller, Lee  
This course studies molecular structure and function from a biochemical point of view, emphasizing the biochemistry of proteins, lipids, and carbohydrates. Topics include protein structure and function, enzymes and enzyme kinetics, lipids and membranes, and carbohydrates and cell walls. The participation of these biomolecules in metabolism is also discussed, and focuses on the metabolic pathways of glycolysis, glucogenesis, fatty acid oxidation, amino acid catabolism, the TCA cycle, and oxidative phosphorylation. The course concludes with a look at the integration of metabolism in mammals. Students with credit for CHEM 41 may not receive credit for BIOL 40.  
Prerequisite: BIOL 12/BIOL 19 and CHEM 52 or CHEM 58 or permission of the instructor.  
Distributive: Dist:SCI

**BIOL 41 - Cells into Organs: Assembly, Function and Disease**  
Instructor: He  
How do cells organize into the myriad forms of tissues and work together to perform specific physiological functions? In this course, we will use epithelial tissues as an example to explore these fundamental questions. Epithelia are among the most common types of tissue organization in animals. They line the cavities, ducts and surfaces of all the major organ systems and provide a variety of functions such as secretion, protection and sensing. During development, epithelial tissues also function in morphogenetic processes that guide the formation of body patterns. Defects in epithelial growth control and function play a major role in human diseases such as cystic fibrosis and cancer. The goal of this course is to understand the form, dynamics and function of epithelial tissues, and how dysregulation of epithelia can lead to various human diseases.  
Prerequisite: BIOL 12/BIOL 19 or instructor permission  
Distributive: Dist:SCI

**BIOL 42 - Biology of the Immune Response**  
Instructor: Turk, Pioli, Obar, Noelle, Green, Rothstein
This course will consider immunoglobulin structure, antigen-antibody reactions, complement, hypersensitivity, immunogenetics, immunodeficiency, tumor immunology and therapy, and autoimmunity.

Prerequisite: BIOL 12/BIOL 19 or BIOL 13, or permission of the instructor.

Distributive: Dist:SCI

BIOL 43 - Developmental Biology
Instructor: Griffin

The course of study will take a comparative approach in dissecting the molecular, cellular and genetic basis of animal embryogenesis and other processes of development. The course will analyze the sequential steps of fertilization; specification events of early embryogenesis and basic development of the germ layers; body plan specification; morphogenesis; neurogenesis; stem cells; cell type specification and differentiation; tissue development leading to organ differentiation; and gametogenesis.

Prerequisite: BIOL 12/BIOL 19 or BIOL 13

Distributive: Dist:SCI

BIOL 45 - Molecular Biology
Instructor: Grotz

This course will build upon the material presented in BIOL 13 with in depth analysis of the molecular mechanisms underlying fundamental processes including DNA replication, transcription and translation in bacteria and eukaryotes. Key regulatory events that influence gene expression will be discussed including the function of promoters and enhancers, chromatin structure and epigenetics, RNA mediated silencing and mRNA processing. Emphasis will be placed on understanding how molecular techniques are used to elucidate critical aspects of these processes. Selected papers from the primary literature will be presented to illustrate current advances.

Prerequisite: BIOL 13

Distributive: Dist:SCI

BIOL 46 - Microbiology
Instructor: Nadell, O'Toole, Cramer, Leib

A lecture, discussion, and laboratory course considering the biology of microorganisms, with emphasis on bacteria. Topics such as structure, function, genetics, and metabolism of bacterial cells will be covered. The ecological role of various species of microorganisms will also be discussed.

Prerequisite: BIOL 12/BIOL 19, BIOL 13, or BIOL 16

Distributive: Dist:SLA

BIOL 47 - Genomics: From Data to Analysis
Instructor: Zhaxybayeva

Massive amounts of genomic data pervade 21st century life science. Physicians now assess the risk and susceptibility of their patients to disease by sequencing the patient’s genome. Scientists design possible vaccines and treatments based on the genomic sequences of viruses and bacterial pathogens. Better-yielding crop plants are assessed by sequencing their transcriptomes. Moreover, we can more fully explore the roots of humanity by comparing our genomes to those of our close ancestors (e.g., Neanderthals, Denisovans). In this course, students will address real-world problems using the tools of modern genomic analyses. Each week students will address a problem using different types of genomic data, and use the latest analytical technologies to develop answers. Topics will include pairwise genome comparisons, evolutionary patterns, gene expression profiles, genome-wide associations for disease discovery, non-coding RNAs, natural selection at the molecular level, and metagenomic analyses.

Prerequisite: BIOL 13 OR BIOL 15

Distributive: Dist:SCI

BIOL 48 - Disease, The Environment, and Human History
Instructor: McPeek

Most diseases result from either environmental challenges that individuals face or the constitution of the individuals’ genomes. For example, health challenges like obesity, diabetes and allergies can result from changes in the human diet, and infectious diseases like flus, Lyme disease and even bubonic plague are exacerbated by environmental changes that humans have made to our environment. Diseases as varied as dementia, various cancers, sickle cell anemia and cystic fibrosis result from past genetic changes in humans that may have actually been favored in some contexts. Moreover, humans and their pathogens continually change in response to one another. In this course, we will place various human diseases in these broader contexts to explore their sources and ultimate causes, and we will consider the implications of this exploration for how science can shape better public policy to produce better health outcomes for individual patients and the public health system more broadly.

Prerequisite: One from among Biol 12/BIOL 19, Biol 13, Biol 14, Biol 15, Biol 16, or instructor permission

Distributive: Dist:SCI

BIOL 50 - Advanced Topics in Ecology

Different offerings of this course will cover one or more specific advanced topics in ecology. Material will be
presented in a manner designed to encourage student participation and problem solving. Each offering will focus on cutting edge approaches to studying the behavior of various organisms in multiple contexts. Assignments will be based on readings from the current literature working with modern data sets, and solving real-world problems in ecological biology. Students may take more than one offering of this course.

Distributive: Dist: SCI

**BIOL 50.01 - Ecotoxicology and Environmental Health**
Instructor: Chen

This course will examine the ecological impacts of environmental contaminants. Anthropogenic chemicals will be considered in terms of sources, fate and transport in air, water, and soil, and exposure pathways and effects on organisms. Chemicals will include inorganic as well as organic contaminants (e.g. mercury, lead, arsenic, PCBs, DDT, PFASs). Focus will be on individual, population, community, and ecosystem level effects. The class will use a combination of lectures, paper presentations, and discussions.

Prerequisite: BIOL 16 and one from among BIOL 21-BIOL 32

Distributive: Dist:SCI

**BIOL 50.02 - Ecology of Infectious Disease**
Instructor: Cottingham

This advanced undergraduate seminar will explore the dynamics of infectious disease through the lens of ecological science while providing training in writing and reviewing research proposals. We will begin by carefully reading case studies from the literature to develop content mastery and strategies for identifying important research questions. Groups of students will then write research proposals, practice the art of constructive peer review, and participate in a mock grant review panel.

Prerequisite: BIOL 16 and one from among BIOL 21-31, BIOL 46 or BIOL 48

Distributive: Dist:SCI

**BIOL 51 - Advanced Population Ecology**
Instructor: McPeek

This course explores theory and data regarding properties of biological populations. Topics of lectures and analytical exercises include: descriptions of abundance, dispersion, and demographic schedules; applying life tables and matrix models to understand population growth and age structure; life history theory; influence of endogenous feedbacks and exogenous forces on population dynamics; spatial patterns and processes; and contributions of population ecology to applied issues in conservation, pest management, human demography, and the management of harvested populations. No student may receive course credit for both BIOL 21 and BIOL 51. Offered in alternate years.

Prerequisite: BIOL 16 and one course from among BIOL 22 - BIOL 32

Distributive: Dist:SCI

**BIOL 53 - Aquatic Ecology**
Instructor: Staff

The study of interactions between biological communities and their freshwater environment. Lecture and readings provide the scientific background necessary for understanding the physical, chemical and biological dynamics of freshwater habitats. Emphasis is placed on application of fundamental concepts to problems in conservation and management of aquatic ecosystems. The laboratory and fieldwork, including a weekend field trip during the first week of classes, will acquaint students with modern methodological approaches for studying aquatic ecosystems. Offered in alternate years.

Prerequisite: BIOL 15 or BIOL 16 and one course from among BIOL 21, BIOL 22, BIOL 23, BIOL 24, BIOL 25, BIOL 27, BIOL 28, BIOL 29, BIOL 31, BIOL 46

Distributive: Dist:SLA

**BIOL 54 - Advanced Methods in Ecological Research**
Instructor: Ayres

Students will work in small groups to conduct original research projects addressing ecological questions that are developed by the students with inspiration from natural history observations, published research, and discourse within student working groups. Students will develop skills in exploring natural history, formulating interesting answerable research questions, deriving hypotheses from theory, developing research design, acquiring and analyzing data, making statistical and logical inferences, writing scientific papers, and presenting seminars.

Prerequisite: BIOL 16 and one from among BIOL 21-BIOL 32

Distributive: Dist:SLA

**BIOL 55 - Ecological Research in the Tropics I**
Instructor: Ayres

The Biology Foreign Studies Program (BIOL 55, BIOL 56, BIOL 57) exposes students, through intensive, full-immersion study, to Earth's most diverse biological communities. BIOL 56 is a continuation of BIOL 55; these courses comprise the first two-thirds of the FSP, and focus on land (tropical forests) and tropical freshwater ecosystems in Costa Rica. BIOL 57 focuses on coral reef ecosystems in the Caribbean. Students are challenged to know, understand and appreciate the diversity of form and function in organisms, and the interactions that generate
the often-spectacular patterns they see in the field. Habitats in Costa Rica include lowland rain forest, cloud forest, dry forest, montane forest, alpine paramo, streams and wetlands. The schedule is full, including fieldwork, laboratories, lectures and discussions, with emphasis on original research, mostly in small groups of 2-3. Faculty and advanced graduate TAs share field accommodations with students, and are in continuous contact as mentors, day and evening, throughout the program. Students master field and analytical methods (including hypothesis testing, statistical and software skills) for observational and experimental research. We pursue a great variety of research topics, including plant-pollinator and plant-herbivore interactions, processes driving coral reef structure (and coral reef decline), determinants of species distributions, animal behavior, and conservation ecology. Students practice the classic scientific approach: making observations, asking testable questions, generating hypotheses, developing experimental protocols, collecting data, making statistical inferences, writing scientific papers, and presenting seminars. Research papers are published in an annual book. Accommodations are at field stations in Costa Rica, and at a marine laboratory in the Caribbean. Acceptance into Program is required. In addition, BIOL 15 & BIOL 29 are recommended.

Prerequisite: BIOL 16, one course from among BIOL 21 - BIOL 32; acceptance into program, BIOL 15 and BIOL 29 recommended

Distributive: Dist:SLA

**BIOL 56 - Ecological Research in the Tropics II**

Instructor: Laidre

A continuation of BIOL 55. See BIOL 55 for a description of the Biology Foreign Study Program.

Prerequisite: BIOL 55 (taken in same term)

Distributive: Dist:SLA

**BIOL 57 - Ecological Research on Coral Reefs**

Instructor: Chen

Field and laboratory investigations of marine organisms and coral reef communities. Lecture and research topics include studies of algae, aquatic plants, invertebrates, and fish, with emphasis on populations, species interactions, community structure and energetics, and reef conservation and management. The course is based at the Little Cayman Research Center, Little Cayman Island. Scuba diving is optional. See BIOL 55 for an overview of the Biology Foreign Study Program.

Prerequisite: BIOL 55 and BIOL 56 (taken in same term)

Distributive: Dist:SLA

**BIOL 58 - Advanced Community Ecology**

Instructor: McPeek

This course will examine the various mechanisms structuring ecological communities of plants and animals. The course will consist of regular lectures, readings from the primary literature, and individual projects. Topics to be covered include simple two-species interactions (e.g. predation, competition, parasitism, mutualisms), simultaneous multispecies interactions, food web structure, regulation of species diversity on ecological and evolutionary time scales, community succession, and biogeography. Emphasis will be placed on the development of mathematical models and their relationship to empirical studies. Offered in alternate years.

Prerequisite: BIOL 15 and BIOL 16 and one from among BIOL 21 - BIOL 32

Distributive: Dist:SCI

**BIOL 59 - Biostatistics II**

Instructor: B. Calsbeek

This is an advanced course in statistics and experimental design, as applied to biological systems. There will be lectures and computer laboratories, regular homework assignments, and a major term project of statistical analysis. Topics covered include analysis of variance, generalized linear models and logistic regression, multivariate analysis methods, experimental design, and an introduction to Bayesian methods. Emphasis will be placed on the use of statistical programming for performing analyses.

Prerequisite: BIOL 29

Distributive: Dist:QDS

**BIOL 60 - Advanced Topics in Evolution**

Different offerings of this course will cover one or more specific advanced topics in evolutionary biology. Material will be presented in a manner designed to encourage student participation and problem solving. Each offering will focus on cutting edge approaches to studying evolution in various contexts. Assignments will be based on readings from the current research literature, working with modern data sets, and solving real-world problems in evolutionary biology. Students may take more than one offering of this course.

Distributive: Dist:SCI

**BIOL 60.01 - Evolutionary Ecology**

Instructor: R. Calsbeek

Theodosius Dobzhansky said "nothing in biology makes sense except in the light of evolution." Evolutionary ecology explores the fundamental and diverse role of evolutionary process in the natural world. We will explore the importance of natural and sexual selection acting in natural communities on land and in the water. Lecture topics will include the evolution of life history variation,
competition, predation, behavior, physiology, migration and dispersal, and molecular evolution. Because the course covers a wide range of topics, students should have a solid foundation in basic ecology and evolution prior to taking BIOL 60.01.

Prerequisite: One from the following: BIOL 21 - BIOL 32, BIOL 47 or BIOL 48

Distributive: Dist:SCI

**BIOL 60.02 - Evolution of Sex**

Instructor: R. Calsbeek

Despite the many benefits of asexual reproduction, the vast majority of eukaryotes reproduce sexually. How sex evolved, and how it persists despite its many associated costs, are major unanswered questions in evolutionary biology. We will explore the diversity of sexual reproduction and related evolutionary phenomena with a focus on critically evaluating current research and theory in this area.

Prerequisite: BIOL 15 and at least 1 from among BIOL 21, BIOL 23, BIOL 24, BIOL 27, BIOL 28, BIOL 32, BIOL 37, BIOL 47 or instructor permission

Distributive: Dist:SCI

**BIOL 63 - RNA: The Real Secret of Life**

Instructor: Peterson

Legend has it that after the discovery of the structure of DNA Francis Crick announced to the patrons of the Eagle Pub in Cambridge, England that they had discovered the secret of life. But what has been learned since this February day in 1953 is that although DNA is the bedrock of modern molecular biology, it is actually RNA that allowed for the emergence of life, and is the central molecule in life’s Central Dogma. Indeed, with the application of new deep sequencing technologies we are discovering that much of the genome is transcribed into functional RNA that does not code for proteins, but instead is involved in gene regulation and genomic architecture, in addition to the maintenance of genome integrity and even possibly the evolution of morphological complexity. In fact, the very question of “what is a gene?” is even being reconsidered, as the fundamental unit of genomic organization appears not to be the classical DNA-based “gene” but instead is the RNA-based transcript. In this course we will explore these issues and more through lectures, literature discussions, student-led presentations, and student writing assignments.

Prerequisite: One from among BIOL 40, BIOL 41, BIOL 43, BIOL 45, BIOL 47 or CHEM 41

Distributive: Dist:SCI

**BIOL 66 - Molecular Basis of Cancer**

Instructor: Grotz

In this course we will explore how cancer develops on a cellular level. Using primary literature as a guide, we will examine the basic cellular processes malignant tumors exploit to promote their rapid, invasive growth and ultimately disease. Topics that will be considered include the genetic factors that initiate cancer cell formation, cell cycle regulation, programmed cell death, cell signaling, angiogenesis, cytoskeletal rearrangements as well as how current cancer therapies work on a cellular level.

Prerequisite: BIOL 12/BIOI 19 and BIOL 13 and one from among BIOL 40, BIOL 41, BIOL 43, BIOL 45 or CHEM 41

Distributive: Dist:SCI

**BIOL 69 - Cell Signaling**

Instructor: Dolph

This course will focus on how signals are transmitted from the cell surface into changes in cellular function. Detailed analysis of specific membrane receptors, second-messenger systems, and protein kinases will be presented as well as how these components are integrated into larger "systems" such as apoptosis, metabolic signaling, synaptic transmission, and sensory transduction. Particular emphasis will be on the biochemical analysis of the pathways and their individual components as well as how these pathways are impaired in certain disease states. The course will consist of lectures and weekly discussions of recent primary literature.

Prerequisite: BIOL 12/BIOI 19 and BIOL 13 and at least one from among BIOL 37, BIOL 40, BIOL 41, BIOL 43, BIOL 45, CHEM 41

Distributive: Dist:SCI

**BIOL 70 - Biologic Lessons of the Eye**

Instructor: Zegans

The eye is unique. Unlike organs hidden deep within the body the transparent nature of the visual axis permits the direct observation of its living tissues without invasive surgery or imaging. Accordingly, the study of vision has yielded many far-reaching biologic insights which will be explored in this course. The course will conclude with a 10-14 day visit to Aravind Eye Hospital in Tamilnadu to present research and observe the delivery of eye care in India.

Prerequisite: BIOL 12/BIOI 19 and BIOL 13, one from BIOL 40, BIOL 41, BIOL 45, CHEM 41 and instructor permission.

Distributive: Dist:SCI

**BIOL 71 - Current Topics in Cell Biology**

Instructor: Lee
This course will cover in depth one or more specific topics in cell biology such as cell division, chromosome structure and function, signal transduction, the cytoskeleton, membrane assembly, and intracellular protein targeting. Material will be presented in a manner designed to encourage student participation and to demonstrate how modern molecular, biochemical, immunological, and genetic techniques are employed to study problems in cell biology. Reading assignments will be taken from the current research literature.

Prerequisite: BIOL 12/BIOL 19 and BIOL 13 and one from among BIOL 40, BIOL 41, BIOL 43, BIOL 45, CHEM 41

Distributive: Dist:SCI

BIOL 72 - Foundations of Epidemiology I

Instructor: Gilbert-Diamond

Epidemiology is the science of studying and understanding the patterns of disease occurrence in human populations with the ultimate goal of preventing human disease. This course is the first in a two-part sequence that aims to build mastery of fundamental epidemiological theory and methods for research. Topics will include introductions to population characteristics and disease frequencies, epidemiological study designs, measures of excess risk associated with specific exposures, and inferring causality in exposure-disease relationships.

Prerequisite: BIOL 29

Distributive: Dist:SCI

BIOL 73 - Foundations of Epidemiology II

Instructor: Romano

Epidemiology is the science of studying and understanding the patterns of disease occurrence in human populations with the ultimate goal of preventing human disease. This course is the second in a two-part sequence. Building off of concepts covered in Foundations of Epidemiology I, it aims to develop an in-depth understanding of population characteristics and disease frequencies, epidemiological study designs, measures of excess risk associated with specific exposures, and inferring causality in exposure-disease relationships.

Prerequisite: BIOL 72 and permission of instructor.

Distributive: Dist:SCI

BIOL 74 - Current Topics in Neurobiology

Seminar course on selected topics in cellular and molecular neurobiology focusing on the connection between molecule and malady in diseases ranging from developmental psychiatric conditions like autism and schizophrenia to neurodegenerative conditions such as Alzheimer’s Disease and multiple sclerosis. We will focus on connecting basic research with outstanding questions in the field. Students may take more than one offering of this course.

Prerequisite: BIOL 35/PSYC 35 (formerly BIOL 49/PSYC 46) or two from the following BIOL 40, BIOL 41, BIOL 43, BIOL 45, PSYC 6, PSYC 65

Distributive: Dist:SCI

BIOL 74.01 - Development, Plasticity and Dysfunction of the Synapse

Instructor: Hoppa

Seminar class in neurobiology focusing on synaptic transmission and neurobiological diseases of development and aging. Papers will introduce class to details of methods including optogenetics, microscopy, genetic manipulations and electrophysiology. Major questions in the field of neurobiology will be introduced through recent high-impact papers and live lectures and interviews with off-campus research labs that authored the paper. We will focus on connecting basic research to neurological diseases such as Parkinson’s, ALS, Epilepsy and Autism.

Prerequisite: Two from among BIOL 012, BIOL 013, BIOL 014, BIOL 049, BIOL 035, PSYC 006, PSYC 035, PSYC 046, PSYC 065

Distributive: Dist:SCI

BIOL 74.02 - Diseases of the Nervous System

Instructor: Hill

This course will investigate the cellular basis of several common neurodegenerative diseases including Alzheimer’s, demyelinating disorders and ALS. For each we will take a holistic approach to understand the: 1) cell types and pathways that are dysfunctional, 2) mechanisms of disease presentation, heterogeneity and patient prognosis and 3) current state of the scientific literature. Commonalities will be studied to understand how dysfunction in multicellular interactions results in a degenerative cascade of mind and body.

Prerequisite: Two from among: BIOL 012, BIOL 013, BIOL 014, BIOL 049, PSYC 006, PSYC 035, PSYC 046, PSYC 065

Distributive: Dist:SCI

BIOL 76 - Advanced Genetics

Instructor: McClung

Methods and strategies for the analysis of gene structure, function and genetic interactions. The course will examine how the genetic manipulation of model organisms, including yeast, Drosophila, C. elegans, and mouse, is used to explore the mechanisms of fundamental biological processes such as cell division, development, and intercellular communication. Emphasis will be placed on the application of classical genetic methods, including
mutant screens, recombination and complementation analysis, genetic mosaics, and the use of conditional mutations. Modern molecular-based approaches, including gene knockout, gene dosage and misexpression studies will also be included. Three hours of lecture and one hour of discussion per week.

Prerequisite: BIOL 12/BIOL 19 and BIOL 13 and one from among BIOL 40, BIOL 41, BIOL 43, BIOL 45, BIOL 47, or instructor permission

Distributive: Dist:SCI

BIOL 78 - Molecular Mysteries of Human Biology
Instructor: Witters

Knowledge of molecular mechanisms allows new approaches to understanding human biology and disease. This course will explore the normal and abnormal biology of several human conditions relying on biochemistry, molecular genetics, and physiology as tools of inquiry. Examples will be drawn from the histories of Mona Lisa, Michel-Eugène Chevreul, Otto Warburg, Hendrickje Stöffels, Steve Jobs, Paul Cézanne, Pearl Buck, Auguste D and Luigi Comaro among others

Prerequisite: BIOL 13 and BIOL 40 (or CHEM 41) or permission of instructor. A prior course on some aspect of mammalian physiology is recommended (e.g. BIOL 2, BIOL 14 or BIOL 37). Priority will be given to senior Biology majors.

Distributive: Dist:SCI

BIOL 95 - Independent Research in Biology I

Original and independent investigation of a biological problem with associated study of primary literature sources under the supervision of a faculty member for one academic term. Open only to Dartmouth Biology majors. Projects may include research in laboratory settings, field work, modeling, data mining, or development of new methodologies that will further understanding of a relevant basic or applied biological problem. Required of honors students as part of the major. Students taking BIOL 95 and BIOL 97 may count only one of these courses toward the elective courses for their major. In no case may a student elect more than two from courses among BIOL 95, 96, 97, and 98. Students who have completed or are taking BIOL 97 may enroll and receive college credit for BIOL 99 during spring term of their senior year.

Students are awarded one course credit for successful completion of this course at the end of the third term of study. Students subsequently register for BIOL 98 and complete this course upon completion of this course at the end of the third term of coursework.

Prerequisite: At least two Biology courses numbered 20 or above, a 3.0 average in previous Biology courses, and permission of the Undergraduate Committee and the supervising supervisor(s). The application and research proposal must be submitted at least one month prior to the beginning of the term in which the course is to be elected.

BIOL 96 - Independent Research in Biology II

A second term of original and independent investigation of a biological problem under the supervision of faculty member. Open only to Dartmouth Biology majors who have satisfied the requirements for BIOL 95 and who wish to continue their independent research for a second term. Does not count for credit in the major. In no case may a student elect more than two courses among BIOL 95, 96, 97, and 98.

Prerequisite: Satisfactory completion of BIOL 95 (including research paper) and permission of the Undergraduate Committee and the supervising instructor(s). The application and research proposal must be submitted at least one month prior to the beginning of the term in which the course is to be elected.

BIOL 97 - Honors Research in Biology I

Original and independent investigation of a biological problem with associated study of primary literature sources under the supervision of a faculty member. Open only to Dartmouth Biology majors. Projects may include research in laboratory settings, field work, modeling, data mining, or development of new methodologies that will further understanding of a relevant basic or applied biological problem. Required of honors students as part of the major. Students taking BIOL 95 and BIOL 97 may count only one of these courses toward the elective courses for their major. In no case may a student elect more than two from courses among BIOL 95, 96, 97, and 98. Students who have completed or are taking BIOL 97 may enroll and receive college credit for BIOL 99 during spring term of their senior year.

Students are awarded one course credit for successful completion of this course at the end of the third term of study. Students subsequently register for BIOL 98 and complete this course upon completion of this course at the end of the third term of coursework.

Prerequisite: At least two Biology courses numbered 20 or above, a 3.0 average in previous Biology courses, and permission of the Undergraduate Committee and the supervising supervisor(s). The application and research proposal must be submitted at least one month prior to the beginning of the term in which the course is to be elected.

BIOL 98 - Honors Research in Biology II

Original and independent investigation of a biological problem with associated study of primary literature sources under the supervision of a faculty member. Open only to Dartmouth Biology majors. Projects may include research in laboratory settings, field work, modeling, data mining, or development of new methodologies that will further understanding of a relevant basic or applied biological problem. BIOL 98 does not count for credit in the major. In no case may a student elect more than two courses among BIOL 95, 96, 97, and 98. Students who have completed or are enrolled in BIOL 98 may enroll and
receive college credit for BIOL 99 during spring term of their senior year.

Students are awarded one course credit for successful completion of this course. Students who have registered for BIOL 97 register for this course and continue with their coursework into a third term. Students do not register for a third term. A final grade will replace the “ON” for both BIOL 97 and this course upon completion of this course at the end of the third term of coursework.

Prerequisite: BIOL 97

**BIOL 99 - Senior Seminar in Biology**

Instructor: Schaller

This course will focus on presentation techniques and critical evaluation of other students' research and presentations. Students who have conducted independent research will present background information related to their research projects, develop seminars based on their own findings, and receive feedback. All students taking BIOL 97 are encouraged to enroll in this course. The course does not count towards the major.

Prerequisite: Senior standing and previous or current enrollment in BIOL 97

**Chemistry - Undergraduate**

Chair: Dean E. Wilcox


To view Chemistry Undergraduate courses, click here. (p. 174)

To view Chemistry Graduate requirements, click here. (p. 734)

To view Chemistry Graduate courses, click here. (p. 737)

**Requirements for the Chemistry Major**

The Chemistry Department offers five major programs. All major programs require an average GPA of 2.0 in all courses counted toward the major, including prerequisites taken in Chemistry. Normally, all courses that would serve as prerequisites to, or count toward, a major in Chemistry, and that are presented at the time the student declares a major must individually have a GPA of 2.0 or higher.

Three of the major programs are offered as majors in chemistry: Plan A, for those who wish a broad and thorough training in chemistry; Plan B, for those whose scientific interests are only partially based in chemistry; and a modified major, which is similar to Plan B, but also includes a second program involving another college department.

Plan A should be chosen by students who plan to do graduate work in chemistry or a closely allied science. Such students should normally take additional courses in chemistry, physics and mathematics to augment the plan’s minimum requirements. Plan A is also a suitable choice for premedical students.

Plan B is less structured and is suitable for students planning to engage in chemically-related careers, such as medicine, environmental science, life science or industrial science, or professions for which the study of chemistry may prove desirable, such as teaching, law or business.

The fourth program offered by the Chemistry Department is a major in biophysical chemistry. This is a relatively structured major designed for students interested in biophysical chemistry and associated methodologies for studying life processes. It provides a strong background for graduate work in biophysical chemistry, structural biology, biochemistry or biomedical science, and is suitable for premedical students. Students are encouraged to take additional courses in chemistry, biochemistry, biological sciences, mathematics and physics to augment the plan’s minimum requirements.

The fifth program is a major in biological chemistry. This major is designed for students interested in applications of chemistry to fundamental biological processes, similar to the biophysical chemistry option, but with less emphasis on the physical chemical underpinnings. In addition to being suitable for premedical students, it provides the framework for further graduate study in all areas of biological chemistry and biomedicine.

Dartmouth College requires that all majors must complete a substantial, graded culminating or integrating activity in their major. Many chemistry majors will satisfy this requirement by participating in undergraduate research by registering for CHEM 80, Independent Study in Chemistry, or for one or two terms of CHEM 87, Undergraduate Investigation in Chemistry; such students will often be enrolled in the Chemistry Honors Program as well.

Other chemistry majors will satisfy the requirement for a culminating or integrating experience by including in their major programs one of the three-course groups listed below. The course groups, each of which provides an
Students must indicate their preliminary plans for satisfying the requirement for the culminating or integrating experience when they declare a major in the sophomore year. Since a student may not enroll in CHEM 87 until they have been approved to do so (see later), the initial declaration of a major must show how the culminating experience requirement will be satisfied using one of the three-course groups mentioned above. Students must confirm their final plans for satisfying the culminating experience at the beginning of the fall term of the senior year. Modified majors with Chemistry as the primary department must define a culminating or integrating experience as part of the coherent and unified whole of their modified major, and must provide a statement to the Department’s Undergraduate Advisory Committee at chemistry@dartmouth.edu and to the Registrar, explaining their rationale for the courses selected for the modified major. This is required as they submit their modified major plans in DartWorks.

1. Plan A Major
Prerequisite: CHEM 5-6, or CHEM 10; MATH 3, MATH 8, and MATH 13 (or equivalents); and PHYS 13-14 (strongly recommended) or PHYS 3-4 or PHYS 15-16.

Required Courses: CHEM 51 or CHEM 57, CHEM 64, CHEM 75, CHEM 76 and CHEM 96.

Two additional courses selected from among CHEM 41, CHEM 42, CHEM 63, CHEM 80 or CHEM 87.01, CHEM 91, CHEM 92, CHEM 93, CHEM 95 (two different offerings of CHEM 95 are acceptable) and another offering of CHEM 96; graduate-level courses in Chemistry; BIOL 40; MATH 20, MATH 22 or MATH 24, MATH 23 and MATH 46; PHYS 19 and, with prior written permission, relevant major credit (or graduate-level) courses in other departments in the Division of the Sciences. BIOL 40 cannot be taken in conjunction with CHEM 41.

2. Plan B Major
Prerequisite: CHEM 5-6, or CHEM 10; MATH 3 and MATH 8 (or equivalent); and PHYS 13-14 (strongly recommended) or PHYS 3-4 or PHYS 15-16.

Required Courses: Of the eight courses, a minimum of six must be in chemistry to include a) CHEM 51 or CHEM 57, CHEM 75 and CHEM 76, and CHEM 64; b) two additional courses from the following group: CHEM 41, CHEM 42, CHEM 52 or CHEM 58, CHEM 63, CHEM 80 or CHEM 87.01, CHEM 91, CHEM 92, CHEM 93, CHEM 95 (two different offerings of CHEM 95 are acceptable) CHEM 96 (two different offerings of CHEM 96 are acceptable) and graduate-level courses in chemistry. Note that CHEM 76 is a prerequisite to some offerings of CHEM 96.

The remaining two courses may be additional chemistry courses from group b) above or may be chosen from the following: BIOL 40; MATH 20, MATH 22 or MATH 24, MATH 23 and MATH 46; PHYS 19 and, with prior written permission, relevant major credit (or graduate-level) courses in other departments in the Division of the Sciences. BIOL 40 cannot be taken in conjunction with CHEM 41.

3. Modified Major

Modified Major with Chemistry as the primary department
Prerequisite: As required by courses elected.

Required Courses: Six in total, which must include CHEM 51 or CHEM 57, CHEM 64, and CHEM 75. The other three courses must be Chemistry Department courses.

Four additional courses from the secondary department selected with the approval of any member of the Undergraduate Advisory Committee (and under certain circumstances by the secondary department; see the Regulations under Department Major).

Modified Major with Chemistry as the secondary department
Prerequisite: As required by courses elected.

Required Courses: Four courses, which must be chemistry offerings, suitable (beyond prerequisites to the major) for completion of the Plan A or Plan B major.

4. Biophysical Chemistry Major
Prerequisite: CHEM 5-6, or CHEM 10; MATH 3 and MATH 8 (or equivalent); PHYS 13-14 (strongly recommended) or PHYS 3-4 or PHYS 15-16. (BIOL 12 or BIOL 19 and BIOL 13 are recommended but not required).

Required Courses: CHEM 41, CHEM 51 or CHEM 57, CHEM 52 or CHEM 58, CHEM 75, CHEM 76, CHEM 64, and CHEM 95.

One additional course selected from among CHEM 42, CHEM 63, CHEM 80, CHEM 87.01, CHEM 91, CHEM 92, CHEM 93, CHEM 95 (this must be a different offering of CHEM 95 from the one that is used as the required course), or CHEM 96; graduate-level courses in chemistry; ENGS 35; MATH 20, MATH 22 or MATH 24, MATH 23, or MATH 46; PHYS 19; and with prior written permission, relevant major credit (or graduate-level)
courses in other departments in the Division of the Sciences.

5. Biological Chemistry Major

Prerequisite: CHEM 5-6, or CHEM 10; BIOL 12 or BIOL 19, and BIOL 13; MATH 3 and MATH 8 (or equivalent); PHYS 13-14 (strongly recommended) or PHYS 3-4 or PHYS 15-16.

Required Courses: CHEM 51 or CHEM 57, CHEM 52 or CHEM 58, CHEM 64, CHEM 40, CHEM 41 and CHEM 42.

Two additional courses selected from CHEM 63, CHEM 80 or CHEM 87.01, CHEM 91, CHEM 92, CHEM 93, CHEM 95 (two different offerings of CHEM 95 are acceptable), CHEM 96 (two different offerings of CHEM 96 are acceptable), graduate courses in chemistry, or with prior written permission, relevant major credit (or graduate level) courses in other departments in the Division of the Sciences. If CHEM 80 or CHEM 87.01 is selected as one of the two courses, the research project must have a biochemical focus.

There are many different ways to complete a major in Chemistry. To better inform your decision, the Department has prepared a document, Planning for a Chemistry Major, showing various paths that students can take through the major; not only does this emphasize that the major is more flexible than it might appear at first glance, but it also shows that there are several major plans that do not require taking two major courses in a term. This document is available at http://chemistry.dartmouth.edu/undergraduate-major.

Students considering a Chemistry Department major are strongly encouraged to take CHEM 5-6 (or CHEM 10) in their first year. Students with credit-on-entrance in a foreign language or in chemistry are urged to consider taking PHYS 13-14 during the first year. This is also advisable for those students who delay completion of the language requirement until sophomore year in Language Study Abroad. Students who plan to participate in Language Study Abroad should give early attention to the need for careful curriculum planning. In some cases it may be advisable to postpone the LSA term to the fall term of the junior year. If so, it is necessary to obtain (routine) approval from the Registrar for deferral of completion of the Language requirement.

All Chemistry majors have required courses, some of which must be taken in a particular order. While many sequences are possible, and the Department’s Undergraduate Advisory Committee can give advice on this, it is essential to complete prerequisite courses before taking certain major courses. As a general guideline, it is recommended for majors that the physics and mathematics prerequisites for Physical Chemistry (CHEM 75 and CHEM 76, or CHEM 40), as well as CHEM 51 or CHEM 57, be completed by the end of the sophomore spring term.

Specifically, majors must complete PHYS 13 (or PHYS 15, or PHYS 3 and PHYS 4) and MATH 8 before they take CHEM 75 or CHEM 40. Any change of courses from those listed in the approved major must be discussed with a member of the Undergraduate Advising Committee before the course is taken for credit.

Many Chemistry Department majors do research projects. This research is usually done during the senior (and sometimes junior) year and often for credit (see CHEM 80 and CHEM 87), though occasionally a stipend is available to allow a student to do full-time research during a leave term. All majors are urged to investigate the numerous possible research projects offered by chemistry faculty members. A brochure describing faculty research interests and the CHEM 87 application form are available at http://www.dartmouth.edu/~chem and from the Department staff (102 Burke). The brochure enables a student to identify research areas of particular interest. A final choice of research project is made after consultation with the faculty member(s) concerned. The completed application form is submitted to the Chair for approval.

Requirements for the Chemistry Minor

The Chemistry Department offers a single minor program. All minor programs require an average GPA of at least 2.0 in all courses counted toward the minor, including prerequisites taken in Chemistry. Any student wishing to enroll in the minor program must obtain approval from a member of the Chemistry Department’s Undergraduate Advisory Committee by no later than the end of the first week of the last term in residence prior to graduation.

Prerequisite: CHEM 5-6, or CHEM 10 and MATH 3.

Required Courses: CHEM 51 or CHEM 57 and CHEM 64.

Two additional courses selected from among CHEM 40, CHEM 41, CHEM 42, CHEM 52 or CHEM 58, CHEM 63, CHEM 75, CHEM 76, CHEM 80 or CHEM 87.01, CHEM 91, CHEM 92, and CHEM 93; or graduate-level courses in chemistry. The NRO option is not allowed for any course taken to fulfill the chemistry minor. Students should note that many of the courses listed above have prerequisites in addition to CHEM 6 and MATH 3.

Requirements for the Materials Science Minor

The minor in Materials Science is sponsored by faculty in Chemistry, Physics and Engineering with an interest in interdisciplinary education and research in materials science.

Chemistry Department Honors Program
A student whose grades meet the minimum College requirement for honors work may apply to be admitted to the Honors Program. An honors major follows the basic pattern outlined in the requirements for the chemistry major but is very strongly urged to elect additional courses in chemistry and allied sciences.

An honors student carries out one of two individual projects. Usually an original experimental or theoretical investigation is undertaken in a well-defined area of interest under the guidance and supervision of a member of the faculty. A student with a strong interest in teaching may, however, formulate and carry out under the direction of a member of the faculty a program combining the development of instructional materials with actual experience in classroom or laboratory teaching. In either case, on completion of the work the student will write a thesis and take an oral examination.

A student electing an original experimental or theoretical investigation may conduct it by electing CHEM 87 up to a maximum of two times (counting as two courses toward graduation, but only once toward the minimum group of major courses) or during a leave term of full-time effort. He or she may also request consideration of any appropriate combination of CHEM 87 and noncredit research. A project concerned with the development of educational materials and experience in teaching will be similar in extent.

Ordinarily, the Honors Program will be undertaken by seniors, but juniors who have progressed sufficiently far in satisfying the normal requirements may be permitted to participate. A student who wishes to participate in the Honors Program must apply for admission to the Program by submitting a form, available at http://chemistry.dartmouth.edu/undergraduate/undergraduate-research-credit, or from the Department staff, before beginning work on an honors project, unless special permission has been obtained from the Chair. Before or at the time of application the student must arrange for the supervision of the work, normally by a member of the faculty of the Department. The deadline for applications is the third day of the winter term of the senior year. Additional information is available at chemistry@dartmouth.edu and from the Department administrative office.

Those students who satisfactorily complete the Honors Program with a ‘B+’ average or better in the grade(s) assigned to their honors work at the time of examination will earn Honors recognition in the major or, in appropriate cases, High Honors. High Honors will be granted only by vote of the Department on the basis of outstanding independent work and outstanding performance in the major. An interim evaluation of honors students will be made after one term and continuation will be recommended for those students whose work demonstrates the capacity for satisfactory (B+) work. Students who satisfactorily complete the Honors Program will have Honors in Chemistry or Biophysical Chemistry or Biological Chemistry, or, when appropriate, High Honors in Chemistry or Biophysical Chemistry or Biological Chemistry, entered on their permanent record.

### CHEM - Chemistry - Undergraduate Courses
To view Chemistry Undergraduate requirements, click here.  (p. 171)
To view Chemistry Graduate requirements, click here.  (p. 734)
To view Chemistry Graduate courses, click here.  (p. 737)

### CHEM 5 - General Chemistry
The first term of a two-course sequence to introduce the fundamental principles of chemistry, including chemical stoichiometry; the properties of gases, liquids, and solids; solutions; chemical equilibria; atomic and molecular structure; an introduction to thermodynamics; reaction kinetics; and a discussion of the chemical properties of selected elements. The laboratory work emphasizes physical-chemical measurements, quantitative analysis, and synthesis. An outline of topics for review of secondary school background in preparation for college general chemistry is available from the Department of Chemistry. Students who are eligible to receive credit-on-entrance for CHEM 5-6 may not enroll in CHEM 5-6 or CHEM 10 for course credit without permission of the Department. Credit-on-entrance for CHEM 5-6 will be withdrawn for students who subsequently enroll in CHEM 5-6 or CHEM 10. Prerequisite for CHEM 5: MATH 3. Prerequisite for CHEM 6: MATH 3 and CHEM 5. Supplemental course fee required.

Distributive: Dist:SLA

### CHEM 6 - General Chemistry
The second term of a two-course sequence to introduce the fundamental principles of chemistry, including chemical stoichiometry; the properties of gases, liquids, and solids; solutions; chemical equilibria; atomic and molecular structure; an introduction to thermodynamics; reaction kinetics; and a discussion of the chemical properties of selected elements. The laboratory work emphasizes physical-chemical measurements, quantitative analysis, and synthesis. An outline of topics for review of secondary school background in preparation for college general chemistry is available from the Department of Chemistry. Students who are eligible to receive credit-on-entrance for CHEM 5-6 may not enroll in CHEM 5-6 or CHEM 10 for course credit without permission of the Department. Credit-on-entrance for CHEM 5-6 will be withdrawn for
students who subsequently enroll in CHEM 5-6 or CHEM 10. Prerequisite for CHEM 5: MATH 3.

Prerequisite: Prerequisite for Chem 6: MATH 3 and CHEM 5. Supplemental course fee required.

Distributive: Dist:SLA

CHEM 7 - First-Year Seminars in Chemistry

CHEM 10 - Honors First-Year General Chemistry

CHEM 10 is a general chemistry course for students with a strong background in chemistry and mathematics who may have an interest in majoring in the sciences. The course will cover selected general chemistry topics important for higher level chemistry courses. These include thermodynamics, reaction kinetics, quantum mechanics, and bonding. Laboratory work will emphasize physicochemical measurements and quantitative analysis. CHEM 10 is open only to first-year students and enrollment is limited. Students with a score of 5 on the AP Chemistry examination, and who also have credit on entrance (or the equivalent) for Mathematics 3 are automatically eligible to be considered for admission into Chemistry 10. Students who have credit on entrance (or the equivalent) for Mathematics 3, but who do not have a score of 5 on the AP Chemistry examination, and who wish to be considered for Chemistry 10 must take the Chemistry 10 Placement examination which is offered only during First-Year Orientation. Prerequisite: Credit on entrance for CHEM 5, or satisfactory performance on the CHEM 10 Placement examination, and credit on entrance for MATH 3 or the equivalent. Supplementary course fee required. Students who complete Chemistry 10 will also be granted credit on entrance for Chemistry 5, if they have not already been granted such credit.

Distributive: Dist:SLA

CHEM 40 - Physical Chemistry of Biochemical Processes

Topics in physical chemistry of relevance to fundamental biochemical processes. These will include the thermodynamic and spectroscopic characterization of macromolecular systems, ligand binding and adsorption equilibria, intermolecular interactions and the hydrophobic effect, and transport properties such as diffusion. Laboratory exercises apply these concepts to important biophysical problems, using calorimetric, spectroscopic and computational techniques.

Prerequisite: CHEM 6 (or CHEM 10) and PHYS 13 (or PHYS 15, or PHYS 3 and PHYS 4) and MATH 8, or permission of the instructor. Students with credit for CHEM 75 are not eligible to receive credit for CHEM 40. Supplemental course fee required.

Distributive: Dist:SLA

CHEM 41 - Biological Chemistry I

This course is a one-term introduction to biochemistry presented from a chemical perspective. This course is intended for chemistry majors and will be divided into three sections, using specific examples to demonstrate and stress the role and integration of organic, inorganic and physical chemistry as applied to biochemical processes. Laboratories cover chemical methods applied to biological chemistry problems.

Prerequisite: CHEM 52 or CHEM 58, or permission of the instructor. Students with major credit for BIOL 40 are not eligible to receive credit for CHEM 41. Supplemental course fee required.

Distributive: Dist:SLA

CHEM 42 - Biological Chemistry II

A one term advanced course with in-depth treatment of a number of important concepts in modern biological chemistry, including structural biology (both theoretical and experimental methods), protein folding, ligand binding, allostery, enzyme kinetics, and an introduction to molecular modeling and chemoinformatics. Laboratories will entail application of these methods/techniques.

Prerequisite: CHEM 40 (or CHEM 76), and CHEM 41, or permission of the instructor. Supplemental course fee required.

Distributive: Dist:SLA

CHEM 51 - Organic Chemistry

The first term of a two-term introduction to the chemistry of carbon compounds. The lectures deal with the preparation, properties, and reactions of most of the important classes of organic compounds. There is considerable emphasis upon reaction mechanisms and some attention is given to naturally occurring substances of biological importance. The laboratory work will introduce the student to experimental techniques and instrumental methods including several types of chromatography and spectroscopy, organic synthesis, and the systematic identification of organic compounds.

Prerequisite: CHEM 6 (or CHEM 10). Supplemental course fee required.

Distributive: Dist:SLA

CHEM 52 - Organic Chemistry

The second term of a two-term introduction to the chemistry of carbon compounds. The lectures deal with the preparation, properties, and reactions of most of the important classes of organic compounds. There is considerable emphasis upon reaction mechanisms and some attention is given to naturally occurring substances of biological importance. The laboratory work will introduce the student to experimental techniques and instrumental
methods including several types of chromatography and spectroscopy, organic synthesis, and the systematic identification of organic compounds.

Prerequisite: CHEM 6 (or CHEM 10). CHEM 51 (or CHEM 57 with permission of instructor) is a prerequisite to CHEM 52. Supplemental course fee required.

Distributive: Dist:SLA

CHEM 57 - Honors Organic Chemistry

The first term of a two-term introduction to the chemistry of carbon compounds intended for students planning a chemistry major or career in research in a chemically-related science, including medical science. The lectures deal with the preparation, properties, and reactions of most of the important classes of organic compounds. There is considerable emphasis on reaction mechanisms and some attention is given to naturally occurring substances of biological importance. Topics are covered in greater depth, both in lecture and in the textbook, than in the CHEM 51-52 sequence. The laboratory work introduces the student to experimental techniques and instrumental methods including several types of chromatographic and spectroscopy techniques, organic synthesis, and identification of organic compounds. Enrollment in CHEM 57-58 is limited.

Prerequisite: Permission of instructor and either a grade of at least B+ in CHEM 6 (or B in CHEM 10) or a high score on the CHEM 6 credit test is required for CHEM 57.

Distributive: Dist:SLA

CHEM 58 - Honors Organic Chemistry

The second term of a two-term introduction to the chemistry of carbon compounds intended for students planning a chemistry major or career in research in a chemically-related science, including medical science. The lectures deal with the preparation, properties, and reactions of most of the important classes of organic compounds. There is considerable emphasis on reaction mechanisms and some attention is given to naturally occurring substances of biological importance. Topics are covered in greater depth, both in lecture and in the textbook, than in the CHEM 51-52 sequence. Building on the experimental techniques and instrumental methods introduced in CHEM 57, the laboratory work in CHEM 58 involves a multi-step synthesis of an important chemical target molecule, emphasizing how synthetic organic chemistry is carried out and reported in a research setting. Enrollment in CHEM 57-58 is limited.

Prerequisite: CHEM 57 (or CHEM 51 with permission of instructor) is a prerequisite to CHEM 58. Supplemental course fee required.

Distributive: Dist:SLA

CHEM 63 - Environmental Chemistry

A study of the chemistry of natural environmental processes and the impact of human activities on the atmosphere, hydrosphere and lithosphere. The course will consider the chemistry of topics such as air pollution in the troposphere and stratosphere, pesticides and herbicides, environmental and human health impact of toxic metals, acquisition and use of energy resources, chemicals and cancer, and climate change. The laboratory consists of a term-long, team-based experimental project using instrumental analysis of environmental samples to investigate an environmental chemistry issue or problem.

Prerequisite: CHEM 51 or CHEM 57, or permission of the instructor. Supplemental course fee required.

Distributive: Dist:TLA

CHEM 64 - Basic Inorganic Chemistry

A study of bonding, structure, physical and chemical properties, and chemical reactions of inorganic compounds. Examples will be drawn from main group and transition metal compounds. The laboratory will involve preparations of inorganic compounds which illustrate appropriate experimental techniques for syntheses and manipulations, and instrumental methods for characterization of inorganic compounds.

Prerequisite: CHEM 51 or CHEM 57, or permission of the instructor. Supplemental course fee required.

Distributive: Dist:SLA

CHEM 75 - Physical Chemistry I

An examination of the laws of classical thermodynamics, followed by applications to the properties of gases, liquids, and solids, as well as to solutions, phase, and chemical equilibria. Chemical reaction thermodynamics and the kinetic theory of gases at equilibrium. An introduction to statistical thermodynamics, phenomenological transport and electrochemical reactions are discussed. Laboratories cover physical chemistry techniques drawn from these areas.

Prerequisite: CHEM 6 (or CHEM 10) and PHYS 13 (or PHYS 15, or PHYS 3 and PHYS 4) and MATH 8, or permission of the instructor. Supplemental course fee required.

Distributive: Dist:SLA

CHEM 76 - Physical Chemistry II

Topics in chemical reaction kinetics and the application of quantum mechanics to chemical bonding and spectroscopy. The examination of the fundamental ideas of quantum mechanics and their application to simple model systems such as the linear harmonic oscillator and a confined particle, and to atomic and molecular structure.
Application of quantum theory to electronic, vibrational, rotational, and magnetic resonance spectroscopies. Laboratories cover physical chemistry techniques drawn from these areas.

Prerequisite: CHEM 75 and CHEM 64, or permission of the instructor. Supplemental course fee required.

Distributive: Dist:SLA

CHEM 80 - Independent Study in Chemistry
An original and individual investigation under the supervision of a member of the faculty or staff. The project may involve either research or pedagogical development, with associated literature study. Students who continue the project into subsequent terms will receive a grade of “ON” (ongoing). Upon completion of the project, students will write a report and take an oral examination, after which a final grade in Chem 80 will be assigned.

CHEM 87 - Undergraduate Investigation in Chemistry
Instructor: Chair and staff of the Department
An original and individual investigation with associated literature study in one of the fields of chemistry under the supervision of a member of the staff. Students electing the course will carry out preliminary reading during the preceding term and normally participate in a weekly colloquium. Open to qualified majors and minors, normally seniors, with permission of the Chair. The course may be elected more than once, but may be counted only once in satisfying the minimum major requirements. It may be elected for the last term in residence only if elected previously, or if the student has been doing research outside of this course. Students electing the course write a report and take an oral examination at the end of the term in which they last elect the course.

Prerequisite: Sufficient training in the area of chemistry to be investigated, and permission of the Chair

CHEM 87.01 - Undergraduate Investigation in Chemistry
An original and individual investigation with associated literature study in one of the fields of chemistry under the supervision of a member of the faculty or staff. Students electing the course will carry out preliminary reading during the preceding term and normally participate in a weekly colloquium. The course may be elected once more (Chem 87.02), but only Chem 87.01 may be counted in satisfying the minimum major requirements. It may be elected for the last term in residence only if elected previously, or if the student has already been actively involved in the research project. Students electing the course but who do not continue in Chem 87.02 will write a report and take an oral examination at the end of the term, and receive a final grade. Students who continue in Chem 87.02 will receive a grade of “ON” (ongoing).

CHEM 87.02 - Undergraduate Investigation in Chemistry
Normally, Chem 87.02 serves as a continuation of the investigation begun in Chem 87.01. Students electing the course receive a grade of “ON” (ongoing) at the end of the term. Upon completion of the research project (which may extend into subsequent terms), students will write a report and take an oral examination, after which final grades for Chem 87.01 and Chem 87.02 will be assigned.

CHEM 91 - Advanced Inorganic Chemistry: Catalysis
Instructor: Glueck
The role of metals in homogeneous and heterogeneous catalysis, with an emphasis on mechanisms of catalytic reactions. Applications to industrial processes, organic synthesis, and asymmetric synthesis will be discussed.

Prerequisite: CHEM 64, and either CHEM 52 or CHEM 58, or permission of the instructor

Distributive: Dist:SCI

CHEM 92 - Inorganic Biochemistry
Instructor: Pletneva
The role of metal ions in biological systems. Topics include metal ion transport, storage, and interaction with proteins and nucleic acids; metalloproteins involved in oxygen trans-port and electron transfer; metalloenzymes involved in activation of oxygen and other substrates; and medicinal, toxicity, and carcinogenicity aspects of metals; as well as inorganic model chemistry of bioinorganic systems. Several physical methods are introduced, and their application to current research on the above topics is considered.

Prerequisite: CHEM 64, and CHEM 41 or BIOL 40, or permission of the instructor

Distributive: Dist:SCI

CHEM 93 - Physical Organic Chemistry
Instructor: Aprahamian
Modern theories of organic reaction mechanisms, particularly the use of physical-chemical principles to predict the effect of changing reaction variables, especially reactant structures, on reactivity. Structure/property analyses will be used in assessing the stability and reactivity of various organic species.

Prerequisite: CHEM 52 or CHEM 58, or permission of the instructor

Distributive: Dist:SCI

CHEM 95.01 - Membrane Biophysics
Instructor: Cantor
The structure and function of cell membranes, with emphasis on the complex behavior of intrinsic membrane proteins and its relation to physical properties of the lipid bilayer.

Distributive: Dist:SCI

**CHEM 95.02 - Biomolecular Simulations**
Instructor: Mierke
An advanced treatment of modern computational approaches to the folding, structure, and dynamics of proteins and nucleic acids and their complexes. Topics include folding, searching algorithms, homology modeling, energy landscape deformation, and multi-dimensional searching.

Prerequisite: CHEM 41 and CHEM 42 or CHEM 76, or permission of the instructor

**CHEM 95.03 - Biomolecular NMR**
Instructor: Mierke
The theoretical and practical aspects of the modern use of nuclear magnetic resonance in the study of biomolecules including peptides/proteins, synthetic and natural products, and nucleic acids will be developed.

Prerequisite: CHEM 41 and CHEM 42 or CHEM 76, or permission of the instructor

**CHEM 95.05 - Protein Crystallography**
Instructor: Ragusa
Theoretical aspects for the determination of protein structures using X-ray crystallography. Topics will include a detailed description of crystal symmetry, diffraction theory, data collection and processing, and methods for solving the crystallographic phase problem.

Distributive: Dist:SCI

**CHEM 95.06 - Enzymes**
Instructor: Wilcox
Properties of enzymes that accelerate biochemical reactions, kinetic measurements to quantify enzymatic catalysis, methods to determine the mechanism of an enzymatic reaction, control and regulation of enzymatic activity, overview of the classes of enzymes and the reactions they catalyze.

Distributive: Dist:SCI

**CHEM 96 - Special Topics in Physical Chemistry**
An in-depth exploration of a specific topic in physical chemistry. This course provides an introduction into the areas of current research in the field. The course is offered at least once each year, but the content changes according to the chosen topic.

**CHEM 96.1 Quantum Chemistry**
**CHEM 96.2 Statistical Thermodynamics**
**CHEM 96.3 Molecular Spectroscopy**
**CHEM 96.4 Chemistry of Macromolecules**
**CHEM 96.7 Introduction to Materials Chemistry**
**CHEM 96.8 Chemical Kinetics**

Distributive: Dist:SCI

**CHEM 96.01 - Quantum Chemistry**
Instructor: Ditchfield
An introduction to the quantum mechanics of molecular systems. Approximate methods for calculating the electronic structure of molecules are discussed. Particular emphasis is placed on molecular orbital methods at various ab-initio levels. Methods which include the effects of electron correlation will also be presented. Evaluation of such methods for studies of molecular geometry, conformational problems, thermochemical data, and spectroscopic parameters is presented. Other topics considered may include the electronic structure of hydrogen bonded systems and of excited states.

Prerequisite: MATH 13 and CHEM 76 or equivalent, or permission of the instructor

Distributive: Dist:SCI

**CHEM 96.02 - Statistical Thermodynamics**
Instructor: Cantor
Elements of equilibrium statistical thermodynamics for classical and quantum mechanical systems, with applications to ideal gases, crystalline solids, imperfect gases and liquids.

Prerequisite: MATH 13 and CHEM 76 or equivalent or permission of instructor

**CHEM 96.03 - Molecular Spectroscopy**
Instructor: Winn
A study of optical spectroscopy including selected topics from amongst point group theory, vibrational spectra of polyatomic molecules, electronic and vibronic spectra of molecules and rotational spectra. May be offered on tutorial basis.

Prerequisite: CHEM 76 or equivalent, or permission of the instructor

Distributive: Dist:SCI

**CHEM 96.04 - Chemistry of Macromolecules**
Instructor: Lipson
Light scattering and other characterization techniques; thermodynamic and transport properties of macromolecular solutions. Structure-property correlations in amorphous and crystalline polymers.
Prerequisite: CHEM 75 or permission of the instructor

Distributive: Dist:SCI

**CHEM 96.05 - Introduction to Statistical Thermodynamics and Molecular Simulations**

Instructor: Zhang

An introduction to statistical mechanics and computer simulations of molecular liquids and solids. Discussions of fundamental concepts are complemented with demonstrations of computational and analytical methods for solving statistical mechanics problems.

Distributive: Dist:SCI

**CHEM 96.06 - Computational Methods in Chemistry and Biophysics**

Instructor: Robustelli

A project-based introduction to computational methods in chemistry, molecular biophysics and structural biology. Projects will provide a practical introduction to data analysis and data visualization with python. Molecular dynamics simulations, Monte Carlo simulations and quantum calculations will be used to explore topics in protein dynamics, polymer dynamics, and the conformational analysis of small molecules. No prior coding experience is required.

Distributive: Dist:SCI

**CHEM 96.07 - Introduction to Materials Chemistry**

Instructor: BelBruno

This course begins with a review of fundamental concepts in material science, provides an introduction to some of the more advanced concepts, especially in regard to nanomaterials and, finally, focuses on the chemistry involved both in production of modern materials and their uses. The latter topics include the chemistry of thin films, self-assembled chemical systems, surface chemistry and cluster chemistry.

Prerequisite: Background in Chemistry equivalent to CHEM 76 or Physics equivalent to PHYS 24 or Engineering equivalent to ENGS 24 or permission of instructor

Distributive: Dist:SCI

**CHEM 96.08 - Chemical Kinetics**

Instructor: BelBruno

Kinetics of chemical reactions in various media: reaction rate expressions, mechanisms, elementary processes. Elementary theories of rate processes: activated complex theory, elementary collision theory, unimolecular decomposition. Such topics as diffusion control of reactions, catalysis and photochemistry will be treated as time allows.

Prerequisite: MATH 13 and CHEM 76 or equivalent or permission of the instructor

**Classics - Classical Studies; Greek; Latin**

Chair: M. Graver

Professors P. Christesen, M. Graver, R. Stewart, R. Ulrich, L. Whaley; Associate Professors H. Tell; Assistant Professors P. Glaubhier, J. Hruby; Language Program Director: J. Lynn; Visiting Lecturers: S. Oppen; Affiliated Faculty: Professor I. Kacandes; Associate Professor M. Otter; Emeriti Professors: E. Bradley, J. Rutter, W. Scott, J. Tatum, M. Williamson.

Additional information regarding the Classics Department can be found at the World Wide Web location classics.dartmouth.edu/

To view Classical Studies courses, click here (p. 185).

To view Greek courses, click here (p. 194).

To view Latin courses, click here (p. 196).

**Beginning with the Class of 2019**

**Requirements for the Major in Classical Languages and Literature**

- Any six courses in Greek and/or Latin numbered 10 or higher (excluding Greek 11). These courses enhance students' knowledge of the corpus of ancient Greek and Latin texts, familiarize them with advanced methodologies of literary analysis, and build their research skills. Greek 30, and Latin 22, 24, 26, 30 are topics courses that can be taken more than once when different subjects are offered.

- Two courses distributed as follows:

  - One course selected from Classical Studies 2-5, 10. This course helps establish a general knowledge of languages, literature, and systems of thought in ancient Greece and Rome and introduces students to the methodologies used in studying that subject matter.

  - One course selected from Classical Studies 6, 11, 12, 14-26. This course helps establish a general knowledge of ancient Greek and Roman history and material culture and introduces students to historical and archaeological methodologies.
• Two additional courses (excluding CLST 7) selected from: any Classical Studies course numbered 2 or higher; any course in Greek or Latin numbered 10 or higher (excluding Greek 11); Art History 11.01, 11.02 and 12.01; courses in Comparative Literature numbered 10 or higher (when the content of the course focuses on Classical literature); Philosophy 11.

• Completion of Culminating Experience Requirement.

A modified major in Classical Languages and Literature consists of the courses listed above AND five additional courses taken in one or more other departments or programs. All modified majors must be planned as a coherent whole. Students must submit a written statement to the Classics Department explaining their rationale for the courses selected for the modified major, and that statement must be approved by the Department.

Requirements for the Minor in Classical Languages and Literatures

• Any four courses in Greek and/or Latin numbered 10 or higher (excluding Greek 11). These courses enhance students' knowledge of the corpus of ancient Greek and Latin texts, familiarize them with advanced methodologies of literary analysis, and build their research skills. Greek 30, and Latin 22, 24, 26, 30 are topics courses that can be taken more than once when different subjects are offered.

• One course selected from: Classical Studies 2-5, 10; Philosophy 11. This course helps establish a general knowledge of languages, literature, and systems of thought in ancient Greece and Rome and introduces students to the methodologies used in studying that subject matter.

• One course selected from Classical Studies 6, 11, 12, 14-26, 30, 31. This course helps establish a general knowledge of ancient Greek and Roman history and material culture and introduces students to historical and archaeological methodologies.

Participation in either of the Department's two Foreign Study Programs will meet the requirements for one of the courses listed above (under the heading of “one course selected from Classical Studies 6, 11, 12, 14-26, 30, 31”).

Requirements for the Major in Ancient History

• Two survey courses that establish a general knowledge of ancient Greek and Roman history: one selected from CLST 14-15 and one selected from CLST 17-18.

• Three additional ancient history courses selected from all remaining relevant offerings: CLST 11, 14-15, 17-18, 31. CLST 11 is a topics course that can be taken more than once when different subjects are offered. Students are encouraged to explore modes of historical analysis with varied foci, e.g., gender, slavery, law, sports, regional histories.

• CLST 19, to introduce students to advanced historical methodologies as well as to how research is designed and carried out.

• CLST 6, to provide an overview of the chronology and geography of the Classical world and to introduce students to the methodologies of archaeology.

• One course, to be chosen in consultation with the major advisor, that focuses on other methodologies useful to and employed by ancient historians. Such courses are offered by departments such as Anthropology, Classics, Comparative Literature, and History.

• Two Greek or Latin courses numbered 10 or higher (excluding Greek 11). Greek 30, and Latin 22, 24, 26, 30 are topics courses that can be taken more than once when different subjects are offered.

• Completion of Culminating Experience Requirement.

Participation in either of the Department's two Foreign Study Programs may count towards the major. (Three courses can be counted by participation in both the Greece and Rome FSP programs, two under the heading of additional ancient history courses and one under the
Requirements for the Modified Major in Ancient History

- Two survey courses that establish a general knowledge of ancient Greek and Roman history: one selected from CLST 14-15 and one selected from CLST 17-18.
- One additional ancient history course selected from all remaining relevant offerings: CLST 11, 14-15, 17-18, 31.
- CLST 19, to introduce students to advanced historical methodologies as well as to how research is designed and carried out.
- One course, to be chosen in consultation with the major advisor, that focuses on other methodologies useful to and employed by ancient historians. Such courses are offered by departments such as Anthropology, Classics, Comparative Literature, and History.
- One Greek or Latin course numbered 10 or higher (excluding Greek 11).
- Completion of Culminating Experience Requirement.

Participation in either of the Department's two Foreign Study Programs will meet the requirements for two of the courses listed above, one under the heading of additional ancient history courses (CLST 31) and one under the heading of a course that focuses on other methodologies useful to and employed by practicing ancient historians (CLST 30). No more than two courses from any single Classics Foreign Study Program may count towards the minor. (Three courses can be counted by participation in both the Greece and Rome FSP programs, two under the heading of additional ancient history courses and one under the heading of a course that focuses on other methodologies useful to and employed by practicing ancient historians.)

Requirements for the Major in Classical Archaeology

Prerequisite: CLST 6, to provide an overview of the chronology and geography of the Classical world and to introduce students to the methodologies of archaeology.

Requirements:

- Three courses in Classical archaeology selected from CLST 12, 20-26. Students are encouraged to study the archaeology of both Greece and Rome. CLST 12 is a topics course that can be taken more than once when different subjects are offered.
- One course in ancient history, selected from CLST 11, 14, 15, 17, 18, 19. This course helps establish a general knowledge of ancient Greek and Roman history and introduces students to historical methodologies.
- Two courses from the Greece or Rome Foreign Study Programs (CLST 30, 31).
- Two courses in ancient Greek or Latin numbered 10 or higher (excluding Greek 11). Greek 30, and Latin 22, 24, 26, 30 are topics courses that can be taken more than once when different subjects are offered.
• Two additional courses, to be chosen in consultation with the major advisor, that can develop skills and methodologies useful to and employed by Classical archaeologists, selected from Classical Studies offerings numbered 2 or higher; courses in Greek or Latin numbered 10 or higher (excluding Greek 11); Art History 10.01, 11.01, 11.02 and 12.01.

Requirements for the Modified Major in Classical Archaeology
Prerequisite: CLST 6, to provide an overview of the chronology and geography of the Classical world and to introduce students to the methodologies of archaeology.

Requirements:
• Three courses in Classical archaeology selected from CLST 12, 20-26, 30. Students are encouraged to study the archaeology of both Greece and Rome. CLST 12 is a topics course that can be taken more than once when different subjects are offered.
• One course in ancient history, selected from CLST 11, 14, 15, 17, 18, 19. This course helps establish a general knowledge of ancient Greek and Roman history and introduces students to historical methodologies.
• One course in ancient Greek or Latin numbered 10 or higher (excluding Greek 11).
• Completion of Culminating Experience requirement.

Participation in either of the Department's two Foreign Study Programs will meet the requirements for two of the above courses, one in ancient history and one in Classical archaeology. No more than two courses from any single Classics Foreign Study Program may count towards the modified major. (Three courses can be counted by participation in both the Greece and Rome FSP programs.)

Requirements for the Major in Classical Studies
Prerequisites: Two courses selected from Classical Studies 1, 4, 6; Latin 3; Greek 3. These courses provide an introduction to ancient Greece and Rome and the methodologies scholars employ in studying these cultures.

Requirements:
• Two courses in ancient history selected from Classical Studies 11, 14, 15, 17, 18, 19, 31. These courses establish a general knowledge of ancient Greek and Roman history and introduce students to historical methodologies. CLST 11 is a topics course that can be taken more than once when different subjects are offered.
• Two courses in Classical archaeology selected from Classical Studies 12, 20-26, 30. These courses establish a general knowledge of ancient Greek and Roman material culture and introduce students to archaeological methodologies. CLST 12 is a topics course that can be taken more than once when different subjects are offered.
• Two courses in Classical literature, philosophy, and religion (exclusive of the courses identified as prerequisites), selected from Classical Studies 2-5, 10 and courses in Greek or Latin numbered 10 or higher (excluding Greek 11). These courses establish a general knowledge of languages, literature, and systems of thought in ancient Greece and Rome and introduce students to the methodologies used in studying that subject matter. CLST 10, Greek 30, and Latin 22, 24, 26, 30 are topics courses that can be taken more than once when different subjects are offered.
• Two courses in Classical studies selected from all remaining Classical Studies offerings; courses in Greek or Latin numbered 10 or higher (excluding Greek 11); Art History 10.01, 11.01, 11.02 and 12.01.
History 10.01, 11.01, 11.02 and 12.02; courses in Comparative Literature numbered 10 or higher (when the content of the course focuses on Classical literature); Philosophy 11.

- Completion of Culminating Experience Requirement.

Participation in either of the Department's two Foreign Study Programs will meet the requirements for two of the above courses, one in ancient history and one in Classical archaeology. No more than two courses from any single Classics Foreign Study Program may count towards the major. (Four courses can be counted by participation in both the Greece and Rome FSP programs.)

Requirements for the Modified Major in Classical Studies

Prerequisites: Two courses selected from Classical Studies 1, 4, 6; Latin 3; Greek 3. These courses provide an introduction to ancient Greece and Rome and the methodologies scholars employ in studying these cultures.

Requirements:

- One course in ancient history selected from Classical Studies 11, 14, 15, 17, 18, 19, 31. This course helps establish a general knowledge of ancient Greek and Roman history and introduces students to historical methodologies. CLST 11 is a topics course that can be taken more than once when different subjects are offered.

- One course in Classical archaeology selected from Classical Studies 12, 20-26, 30. This course helps establish a general knowledge of ancient Greek and Roman material culture and introduces students to archaeological methodologies.

- One course in Classical literature, philosophy, or religion (exclusive of the courses identified as prerequisites), selected from Classical Studies 2 - 5, 10 and courses in Greek or Latin numbered 10 or higher (excluding Greek 11). This course helps establish a general knowledge of languages, literature, and systems of thought in ancient Greece and Rome and introduces students to the methodologies used in studying that subject matter.

- One additional course selected from all remaining Classical Studies offerings and courses in Greek or Latin numbered 10 or higher (excluding Greek 11); Art History 10.01, 11.01, 11.02, and 12.01; courses in Comparative Literature numbered 10 or higher (when the content of the course focuses on Classical literature); Philosophy 11.

- Completion of the Culminating Experience Requirement.

A modified major in Classical Studies consists of the courses listed above AND five additional courses taken in one or more other departments or programs. All modified majors must be planned as a coherent whole. Students must submit a written statement to the Classics Department explaining their rationale for the courses selected for the modified major, and that statement must be approved by the Department.

Requirements for the Minor in Classical Studies

Prerequisite: One course selected from Classical Studies 1, 4, 6; Latin 3; Greek 3. This course provides an introduction to ancient Greece and Rome and the methodologies scholars employ in studying these cultures.

Requirements:

- Two courses in ancient history selected from Classical Studies 11, 14, 15, 17, 18, 19, 31. These courses establish a general knowledge of ancient Greek and Roman history and introduce students to historical methodologies. CLST 11 is a topics course that can be taken more than once when different subjects are offered.

- Two courses in Classical archaeology selected from Classical Studies 12, 20-26, 30. These courses establish a general knowledge of ancient Greek and Roman material culture and introduce students to archaeological methodologies. CLST 12 is a topics course that can be taken more than once when different subjects are offered.

- Two courses in Classical literature, philosophy, and religion (exclusive of the course identified as the prerequisite), selected from Classical Studies 2-5, 10; courses in Greek or Latin numbered 10 or higher (excluding Greek 11); Philosophy 11. These courses establish a general knowledge of languages, literature, and systems of thought in ancient Greece and Rome and introduce students to the methodologies used in studying that subject matter.

Participation in either of the Department's two Foreign Study Programs will meet the requirements for two of the above six courses, one in ancient history and one in Classical archaeology. No more than two courses from any single Classics Foreign Study Program may count towards the minor. (Four courses can be counted by participation in both the Greece and Rome FSP programs.)
Culminating Experience Requirement
Students majoring in the Department of Classics may fulfill their Culminating Experience requirement in one of four ways:

• Complete an Honors Project (requires prior approval from the Classics Department);
• Complete both Foreign Study Programs (Greece and Rome);
• Complete a relevant internship (for example, at the Hood Museum) during their junior or senior year AND enroll in an independent study class approved by the Classics Department that includes but is not limited to the work undertaken as part of the internship;
• Complete during their junior or senior year an additional course from among the offerings designated by the Department of Classics as appropriate for Culminating Experiences. If the course designated as a Culminating Experience does not normally require a substantial paper (c. 20-25 pages in length) or an equivalent project, the student will make arrangements with the faculty member teaching the course to produce such a paper or project as an addition to the standard requirements for the course. Such arrangements should be made no later than the end of the first week of the semester in which the Culminating Experience course is taken. If the course designated as a Culminating Experience normally requires a shorter paper or smaller project, the larger paper or project required to fulfill the Culminating Experience may, at the discretion of the instructor, replace that shorter paper or smaller project. All students must confirm their choice of culminating course with their advisor (or the Chair) not later than May 1 of their junior year; their selection is subject to final approval by the Department.

Requirements for All Modified Major Programs
Students wishing to design a Modified Major in Ancient History, Classical Archaeology, Classical Languages and Literatures, or Classical Studies must submit a written rationale demonstrating the intellectual coherence of their proposed program. The complete proposal must be formally approved by the Department of Classics. The program must include at least five courses offered by other departments and programs in addition to the prerequisites and major courses in Classics. One of these courses in other departments may be identified as prerequisite.

If a student wishes to modify a major in another department with any of the majors offered by the Department of Classics (Ancient History, Classical Archaeology, Classical Languages and Literature, Classical Studies) and wishes the name of that major to be entered on his or her permanent record, the modified major program must be approved by the Department of Classics, as well as by the primary department. The modifying component, which should have demonstrable coherence with the primary major, must consist of at least five courses offered by the Department of Classics.

Study Programs Abroad
The Department of Classics sponsors two foreign study programs, one during the fall (odd numbered years) and one during the spring term (odd numbered years), each directed by a member of the faculty of the Department of Classics. Participation in either of the Department’s two Foreign Study Programs will meet major requirements, one in archaeology and one in history (CLST 30.91 and CLST 31, respectively).

The Greek Program
This program, while loosely based in Athens, consists for the most part of extensive field trips under the direction of a member of the Department of Classics to various parts of the ancient Greek world, including Crete, northern Greece (Macedonia and Epirus), western Turkey, and the Aegean islands. The itinerary varies from offering to offering depending upon the interests of the students and the accompanying Dartmouth faculty member. It is designed for qualified students interested in Greek archaeology, art, history, and literature. Archaeologists resident in Greece are invited to provide special tours and offer lectures about important sites or museum collections that are especially well known to them. Two weeks are set aside during the program for independent travel and research related to each student’s independent study project.

The Roman Program
By means of extensive field trips throughout the Italian peninsula (e.g., Latium, Tuscany, Campania, Umbria) students engage in a systematic investigation of the sites, monuments, and artifacts of the Etruscan, Roman, and palaeo-Christian cultures of Italy under the direction of Dartmouth faculty. The aim of the program is to develop a coherent understanding of the processes of origin and growth, conflict and change in ancient Italy. To this end, the monuments of post-Classical Italy are also examined whenever possible, so that students may begin to understand the profound and continuing influence of ancient Italic cultures upon the development of western Europe.

The curriculum embraces architecture, the visual arts, history, religion, and the basic techniques of archaeological analysis. Students learn to see and understand the Roman world in its own context through informal lectures and discussion in situ, under the open sky. The academic requirements consist of short weekly papers, oral reports, and an optional independent study project.

Senior Honors Program

Students eligible for the honors program in Ancient History, Classical Archaeology, Classical Languages and
Literatures, or Classical Studies may elect one of three projects for their senior year: a thesis, a comprehensive examination, or an honors essay and a written examination on connected subjects. They should identify their principal advisor and submit a formal proposal to the chair of the department by May 1st of their junior year for admission to the program.

Only those students who satisfactorily complete an honors program with a B+ average or better will earn Honors in their major or, in appropriate cases, High Honors. High Honors will be granted only by vote of the Department on the basis of outstanding independent work.

Students in the honors program are responsible for selecting their principal advisers from among the departmental faculty; the Department will assign a second reader to each honors student. The principal adviser will approve a reading list for the student and check his or her progress at regular intervals during the year in order to assure adequate progress towards completion of the honors program on schedule.

**Transfer Credit for Majors**

Transfer credit in Classical Studies, Greek and Latin is granted by prior arrangement to majors in the Department of Classics. Exceptions to this policy can be made only by petition to the Department.

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### CLST - Classical Studies Courses

*To view Classics requirements, click here (p. 179).*

**CLST 1 - Introductory Topics in Classical Studies**

Which ancient faces and personalities come alive for us when we look back at Greek and Roman antiquity? How does the world of the ancient Mediterranean intrigue, repel, awe, amuse, or disturb us? Designed for students who have not previously taken courses in this area, this special-topics course introduces the different areas and disciplines that contribute to Classical Studies in the twenty-first century. Open to all classes.

Distributive: WCult:CI

**CLST 1.01 - From Jupiter to Jesus: Christianity and the Transformation of the Roman World**

Through an introduction of major works of western literature and art from the Classical and Early Christian world students will be able to consider modern Western heritage as an enduring product of Greco-Roman civilization. Inquiry will include an exploration of how humans' understanding of themselves and their role in the cosmos evolved over the period of the Roman Empire.

Students will develop skills in analyzing written texts and works of art. They will be introduced to the intellectual tools used to investigate the transformation of societies impacted by exposure to new ideas and practices.

Cross-Listed as: COCO 027

Distributive: WCult:W

**CLST 1.02 - Foodstuffs and Culinary Culture**

One thing all humans share is a relationship with food, but what that food is, who prepares it, how they prepare it, who consumes it, and when and how they consume it, all vary between cultures and within them. This course examines how ancient Greeks and Romans used food to differentiate between themselves and others, and how they used food to differentiate among themselves.

Distributive: Dist:SOC; WCult:W

**CLST 1.03 - Antiquity Today**

The Romans had the Colosseum, the Greeks had the dramatic stage. What does the different ways they staged violence tell us about the Romans and the Greeks? Can this help us understand staged violence in the modern world, such as that in video games? These are the sort of questions that we explore in CLST 1.03. Topics we cover include Greek and Roman attitudes toward violence, their approaches to classifying and evaluating sexual behaviors, their religious beliefs, and the ways they governed their societies. In all cases we will use what we learn about the Greek and Roman ways of doing things to help think about our own practices and predilections.

Distributive: Dist:INT or LIT; WCult:CI

**CLST 2 - The Tragedy and Comedy of Greece and Rome**

Instructor: Oppen

The course studies in translation selected works of Aeschylus, Sophocles, Euripides, Seneca (tragedy), Aristophanes and Plautus (comedy), and some of their central themes and questions: law, community, revenge, passion, and justice. We will approach them both as texts and as scripts/librettos, considering their relationship to other types of performance (ritual, rhetoric, music, dance) and genres (history, philosophy) as well as to theatrical space. There will be practical workshop opportunities for those interested. Open to all classes.

Cross-Listed as: THEA 12

Distributive: Dist:ART; WCult:W

**CLST 3 - Reason and the Good Life: Socrates to Epictetus**

Instructor: Graver

An introduction to philosophical thought in antiquity, especially that of Socrates, Epicurus, and the Stoics. We
will concentrate especially on ethical questions; e.g. what kind of life is best for humans to pursue, how thoughtful persons should weigh the potentially competing claims of reason, pleasure, and emotion; and on how intellectual activity was perceived at Athens and at Rome. Open to all classes.

Distributive: Dist:TMV; WCult:W

**CLST 4 - Classical Mythology**

Instructor: Ulrich

An introduction to Greek myths and the way in which their use in literature developed, from the use of myths as religious story to the utilization of myth in drama and its exploitation in poetry. Open to all classes.

Distributive: Dist:TMV; WCult:CI

**CLST 5 - The Heroic Vision: Epics of Greece and Rome**

Instructor: Glaauthier

Homer's *Iliad* and *Odyssey*, Vergil's *Aeneid*, and Ovid's *Metamorphoses* are among the best known and most influential works to survive from the ancient world. Yet as products of societies vastly different from our own, they remain challengingly unfamiliar. This course offers the chance to study these four epics in their entirety, together with the *Argonautica* of Apollonius of Rhodes and extensive selections from Lucretius' *De Rerum Natura*. Emphasis will be placed on the historical and cultural contexts in which the poems were produced and on how each poet uses the works of his predecessors to define his own place in the epic tradition.

Distributive: Dist:LIT; WCult:W

**CLST 6 - Introduction to Classical Archaeology**

This course addresses the basic methods and principles of Classical archaeology through a survey of the sites and artifacts of Greco-Roman antiquity. Approaches useful for the interpretation of material evidence and the problems inherent in such interpretation will be explored. Through the study of major sites in chronological sequence, students will survey the development of material culture in the Mediterranean world from prehistory to the collapse of the Roman Empire. The course thus serves as an introduction both to Greek and Roman civilization and to the goals of the discipline of archaeology. Open to all classes.

Distributive: Dist:INT or ART; WCult:W

**CLST 7 - First-Year Seminars in Classical Studies**

Instructor: Staff

Courses offered under this rubric explore specific facets of the literature, philosophy, and religion of ancient Greece and Rome.

**CLST 10 - Topics in Greek and Roman Literature, Philosophy, and Religion**

Course offerings under this rubric explore specific facets of the literature, philosophy, and religion of ancient Greece and Rome.

**CLST 10.01 - Rethinking the Divine**

Instructor: Graver

While the stories of mythology were the heritage of all Greeks and Romans, some found that the myths of the gods did not express their conception of a divine being. Philosophers as early as the 6th century B.C.E. offered their own explanations for religious thought and their own alternative accounts of the divine nature: some skeptical, some idealistic, some merely peculiar. The class will read and discuss accounts by Plato, Epicurus, Cicero, Plutarch, and others.

Cross-Listed as: REL 19.03

Distributive: TMV

**CLST 10.02 - Seeing Nature: Aristotle and Darwin**

In this class, we will explore how Aristotle (the father of science) and Darwin (the father of modern biology) developed their ideas about the organization of nature and human society. We will analyze the assumptions they made, what facts and knowledge were available to them, and the dominant social views of their time. In addition, we will consider how our own understanding of the world is shaped by the same forces - with its constraints and possibilities.

Cross-Listed as: COCO, BIOL 10.01

Distributive: Dist:TMV; WCult:W

**CLST 10.03 - Mind, Heart, Brain**

Considers some of the earliest recorded theories of human and animal psychology worked out in Greco-Roman antiquity. What physical substances and/or bodily organs give rise to the characteristic functions of living things, such as sense-perception, self-movement, and self-awareness? How is it that human beings are capable of concept-formation, reasoning, memory, and emotion, and to what extent are these capacities also present in non-human animals? Is the mind-stuff radically distinct from the body and its afflictions, or intimately bound to it? Students work collaboratively to develop their own analyses of these and related issues in a range of philosophical, scientific, and medical texts from both Greece and Rome.

Distributive: Dist:TMV; WCult:W
CLST 10.04 - The Ancient Book: An Introduction to Paleography, Papyrology, Codicology, and Textual Criticism

Paleography is the study of ancient scripts, papyrology the study of scrolls, and codicology the study of ancient books. You’ll get a hands-on introduction by making actual scrolls and codices. You’ll also publish blog posts about your experiences and findings. Textual criticism is the art of trying to reconstruct the original text of ancient literary works. As a final project, students will use the skills of textual criticism to reconstruct a lost archetype.

Distributive: Dist:LIT; WCult:W

CLST 10.05 - Fictions of Sappho

Goddess of poetry, sexual predator, exotic holiday destination, lovelorn suicide, schoolmistress, parchment scrap: these are among the associations clustering around Sappho. From antiquity to the twenty-first century her poems and the legends about her life and loves have fascinated writers, artists and musicians as different as Queen Victoria, Willa Cather, Boccaccio, Jeanette Winterson, Ezra Pound, Gounod, and Ovid. We sample some of the twists and turns in this seemingly endless stream of fantasy and creative reapropriation.

Cross-Listed as: WGSS 21.02; COLT 67.06

Distributive: Dist:LIT; WCult:CI

CLST 10.06 - The Concept of Love in Roman Literature

This course explores the importance of love as a concept in the ancient Roman literary imagination. Vergil’s famous phrase “love conquers all” (omnia uincit amor, Eclogues 10.69) encapsulates the centrality of amor to the poetic genre of elegy. But the notion of love as a conquering force also hints at its ability to overwhelm, subdue, and destroy. The idea of love, broadly conceived, is embedded in the literature, philosophy, scientific thought, religion, and art and archaeology of the Romans. We will explore love in its various forms – devotion, lust, physical sexuality, friendship, and familial bonds – by looking at the central authors and genres of the Latin literary tradition (in English translation). Our discussion of these core texts will be further enriched by an examination of additional ancient sources, including Greek and Roman visual art, monuments and architecture, coins, and inscriptions.

Distributive: Dist:LIT; WCult:W

CLST 10.07 - Ancient Magic and Religion

Bindings and curses, love charms and healing potions, amulets and talismans – from simple spells to complex group rituals, ancient societies made use of both magic and religion to try to influence the world around them. In this course, we shall examine the roles of magic and religion in the ancient Greek and Roman worlds, paying special attention to their local contexts and to the myths and actual techniques ancient practitioners used to serve their clientele.

In this class, we examine descriptions of religious and magical practices in the multicultural contexts of ancient Greece and Rome. Our sources include literary accounts, legal documents, and material objects, such as inscriptions, amulets, tablets, magical images, and papyri.

Cross-Listed as: REL 19.24

Distributive: Dist:INT or TMV; WCult:CI

CLST 10.08 - Laughter and Humor in the Ancient World

What made ancient Greeks and Romans laugh? Do we still get their jokes? What was the function of humor in antiquity, and how does this compare to the role of humor in modern societies? In this course we will investigate these questions by reading ancient Greek and Roman jokes, comedies, and satire alongside modern analyses of humor from psychology, sociology, and cognitive theory. Special themes to be discussed will include laughter and power, irony and satire in philosophy, visual humor, gallows humor, humor and horror, and laughing at others in terms of gender, ethnicity, race, and social class.

Distributive: Dist:SOC; WCult:CI

CLST 10.09 - Quantitative Literary Criticism

Digitization of vast numbers of texts and rapid advances in computational methods are enabling new forms of criticism in all areas of literary study. Classics was an early adopter of digital technologies, and computation is now pervasive throughout the field, as illustrated by flagship projects such as the Perseus Digital Library. Beyond the familiar examples of digitized texts and simple word searches, scholars and students also benefit from an ever-growing array of sophisticated quantitative tools, and from increasing engagement with diverse technical disciplines – natural language processing, data science, even bioinformatics. Through a survey of recent research at the intersection of Latin literature and the digital humanities, this course will introduce you to the state of the art in quantitative literary criticism. To ground our methodological investigations, we will explore a diverse selection of Latin poetry, including epic (Vergil, Lucan, and Catullus), elegy (Catullus), and comedy (Plautus), and sample some less famous later authors, such as Paul the Deacon and Vitalis of Blois, who were influenced by classical antecedents. At each turn, we will examine the interplay between traditional (close reading, philology, theory) and data-driven analyses of Latin literature and consider how quantitative methods can support humanistic inquiry. Along the way, you will gain hands-on experience with powerful computational tools and be introduced to now ubiquitous critical approaches, such as intertextuality and reception studies. Assigned readings will be in English.
translation using bilingual Latin-English editions; in addition to reading all of the English, students with Latin will be responsible for understanding and translating “micro samples” of the original texts. The course assumes no prior computational background.

Cross-Listed as: QSS 30.12
Distributive: Dist:TAS

CLST 10.10 - Ancient Medicine
Instructor: Glaudhier

This course will explore the Greek and Roman origins of medicine in the West. We will analyze how disease came to be understood as a natural phenomenon, and we will examine the different procedures, philosophies, and social roles of doctors in the ancient world. In this investigation, we will encounter many questions with which we are still grappling today, such as: What constitutes scientific thinking? How do science and cultural context determine and reflect one another? What is human nature? Is a disease a moral failing? How do we understand gender and sex in medical terms? All readings will be in translation, and no prior knowledge of medicine or Greco-Roman antiquity is necessary.

Distributive: Dist:TMV; WCult:W

CLST 10.11 - Plato's Protagoras
We will read one of Plato’s most celebrated dialogues, in which Socrates meets the most famous intellectuals of the day. The dialogue is rich in philosophical content as it focuses on the question of what excellence is, whether it can be taught, and the role of education in a young person’s life. Students do not need to know ancient Greek or have any previous knowledge of Plato to take this course.

Distributive: Dist:TMV; WCult:W

CLST 10.12 - The End of the World: Jewish and Christian Apocalyptic Literature in the Hellenistic Era
The Hellenistic era was a period of remarkable theological and literary creativity within the Jewish and Christian communities, including the development of a unique genre, apocalyptic literature. Apocalyptic texts, which portend a catastrophic end to the world, are notoriously difficult to interpret due to their use of fantastical imagery and often cryptic symbolism. In this class we will explore several texts in depth, including portions of Daniel from the Hebrew scriptures, the Book of Enoch from the Maccabean period, the Apocalypse of John (Revelation) from the Christian scriptures, and the 2nd century Christian text Apocalypse of Peter. In addition to learning how to read apocalyptic literature, we will examine the socio-historical context of these texts, their relationship to communities under duress and how they have been reimagined by later generations.

Distributive: Dist:TMV; WCult:W

CLST 10.13 - New Testament
Studies the collection of Christian texts now called the “New Testament” for the insights they provide into the complex cultural interactions in the first-century Mediterranean world. Three primary texts, the Gospel of Mark, Paul’s letter to the Colossians, and Paul’s letter to James, will be examined in light of their original Jewish context and their embeddedness in Greek thought and Roman socio-political structures. This small-enrollment class is taught conjointly with GRK 29, but with assignments and assessment appropriate for students reading entirely in English.

Distributive: Dist:TMV; WCult:W

CLST 11 - Topics in Greek and Roman History
Courses offered under this rubric explore specific facets of the history of ancient Greece and Rome
Distributive: WCult:W

CLST 11.02 - Rediscovering Sparta: Ancient Remains and Modern Technology
This course gives students the opportunity to learn about the history of Sparta while becoming familiar with technology that is rapidly becoming indispensable in studying ancient Greece. We will use newly available archaeological information, ancient Greek texts, excavation reports and maps from the early 20th century, and GIS software to construct visualizations of the ancient city of Sparta. No prior knowledge of the relevant software or prior coursework in the ancient world is required or expected.

Distributive: Dist:TAS; WCult:W

CLST 11.03 - Early Sparta and Corinth: A Comparative Approach to the Archaeohistory of Two Major Greek City-State
Instructor: Christensen

This course centers on Sparta and Corinth, two city-states that, despite close geographic proximity, followed notably different developmental trajectories during the Archaic period. Sparta conquered much of the southern Peloponnesian and became a militarized society with an economy based almost entirely on agriculture. Corinth’s territory was, compared to that of Sparta, minuscule, but it became a powerful and wealthy community through the foundation of numerous colonies and commerce. Sparta was famed for its army, Corinth for its navy. Spartans were known for the simplicity of their lifestyle and the architectural simplicity of their city, whereas Corinthians overtly enjoyed luxuries and erected some of the Greeks’ earliest large-scale stone temples. By comparing and contrasting Sparta and Corinth, we can develop a good sense of the Greek world during the Archaic period.
scholars of comparative world slavery have identified only Although slavery has existed in virtually all cultures, Imperial Rome and Brazil

CLST 11.04 - Sport and Democratization

(Identitical to Sociology 49.19). The relationship between democratization in society and in sports forms the subject matter of this course. We will begin to explore that relationship by looking at the various ways in which democratization in society and in sports influence each other in the modern world. Then we will turn our attention to the past and examine the relationship between democratization in society and in sports in sixth- and fifth-century BCE Greece, in nineteenth-century CE Britain, and in twentieth-century CE America. The course will end with a consideration of the lessons we have learned about democratization in society and in sports for public policy in the United States and elsewhere.

Cross-Listed as: SOCY 49.19
Distributive: Dist:INT or SOC; WCult:W

CLST 11.06 - Sex, Celibacy, and the Problem of Purity: Asceticism and the Human Body in Late Antiquity

Instructor: MacEvitt

Late Antiquity (c. 300-500 C.E.) was a time when Christians struggled to understand how gender, family life, and religion could intermesh. Did virgins get to heaven faster than those who marry? Can a chaste man and woman live together without succumbing to lust? Were men holier than women? What about women who behaved like men? This course examines the changing understanding of the body, marriage, sexuality, and gender within Christianity through reading saints’ lives, letters, polemical essays, and legal texts. Open to all classes

Cross-Listed as: REL 31; WGSS 43.02
Distributive: Dist:TMV; WCult:W

CLST 11.07 - Slave Societies Ancient and Modern: Imperial Rome and Brazil

Although slavery has existed in virtually all cultures, scholars of comparative world slavery have identified only five societies in all of human history as "slave societies": two were in the ancient world (classical Athens, Rome) and three were in the New World (the American South, the Caribbean, Brazil). This course examines slave systems in the ancient and modern worlds comparatively, focusing on Rome and Brazil. In Rome, the emergence of the state, including the development of the concept of the citizen, coincided with the development of the slave society. African slavery in Brazil was introduced soon after the establishment of the colonial government and drew heavily from classical legal definitions. In this course we compare the social and political structures of these two slave systems (high art, popular culture, institutions). We examine how each slave society was legitimated, perpetuated-and ultimately challenged. Specific topics include: the construction of the slave and the emergence of racializing discourse, the slave trade and the commodification of the body, trickster narratives, modern theories of power and domination, resistance and rebellion, and the problem of freedom for previously dominated peoples. Through comparison, students will not only become aware of the similarities between these two slave societies, but will also be better equipped to evaluate their unique qualities and particular achievements.

Cross-Listed as: LACS 30.01
Distributive: Dist:INT or LIT; WCult:NW

CLST 11.11 - War Stories

Instructor: Stewart

What is a “true” war story? This course surveys stories of deployment and return from antiquity to the present, to think about the genre of the war story, and especially to think about the self-fashioning narratives of individuals who have witnessed the realities of war and return home. Through close reading we examine the interactions of the returning soldier with his community, and the kinds of stories that soldiers will and will not tell. The historical, cross-cultural study of war stories allows the problem of homecoming to emerge more clearly as problems of the human condition across cultures and political or social organizations, the problem of homecoming emerges as a product of war. Texts may include Homer, Odyssey; Remarque, The Road Back; S. Ooka, Fires on the Plain; Tim O’Brien, The Things They Carried; Bao Ninh, The Sorrow of War: A Novel of North Vietnam; D. Finkel, Thank You for Your Service; P. Klay, Redeployment; B. Turner, Here, Bullet.

Cross-Listed as: COLT 64.03
Distributive: Dist:INT or LIT; WCult:CI

CLST 11.12 - Slaves, Wives, & Concubines: Did Roman Women Have a History?

Instructor: Stewart

This course is about the heterogeneous lived experience of women (slaves, freed slaves, lawful wives, daughters, prostitutes) during the Roman Republic and Empire. Roman women built and immortalized themselves and their families in funerary and civic monuments, endowing institutions like schools, and sometimes had coins bearing their portraits. We explore the larger institutional frameworks that gave meaning to their lives, and within this framework we investigate their life choices over time.

Cross-Listed as: WGSS 21.01, HIST 94.13
Distributive: Dist:SOC; WCult:CI

CLST 11.13 - Democracy: Ancient to Modern

Instructor: Staff
This course comprises four parts. In the first, we will familiarize ourselves with the concept of democracy, as well as the historical context in which democracy first emerged. In part two, we will explore the history of democracy at ancient Athens, with an emphasis on the development and functioning of democratic institutions, democratic ideology, and the exploitation by democracies of women, slaves, and foreigners. In part three, we will consider democracies outside Athens, as well as non-democratic regime types, such as oligarchy, tyranny, and the “Lycurcan” constitution at Sparta. In part four, we will turn our attention to the modern era. More specifically, we will compare Greek democracies to subsequent institutions that have been described as democratic (e.g., New England town hall meetings, the United States of America, and the Democratic Republic of the Congo); examine the impact of Greek democracy on the development of modern political thought.

Cross-Listed as: HIST 90.08
Distributive: Dist:INT or SOC; WCult:W

CLST 11.14 - Gender and Sexuality in Ancient Greece
Instructor: Staff
In this course we will analyze artifacts (e.g. frescoes and vase paintings, statuary, house interiors) and texts (e.g. love poetry, court cases, philosophical treatises, medical texts, tragedy and comedy) from Greece and its surrounding islands between about 3000 and 300 BCE. In addition to thinking critically about this primary material, allowing us to formulate our own opinions about it, we will read modern scholarly and popular texts focusing on gender and sexuality in prehistoric and ancient Greece.

Cross-Listed as: WGSS 21.03
Distributive: Dist:SOC; WCult:W

CLST 11.15 - Herodotus and Thucydides
The course studies the two Greek writers who invented historical writing. Herodotus and Thucydides both engaged in an intricate intellectual dialogue with earlier Greek poetry and thought and with new, often radical political, religious, and scientific ideas; yet in doing so, they developed diametrically opposite modes of historical thinking. We will examine and compare their groundbreaking works in the context of Greek literary and intellectual history. Attention will also be paid to the later reception, from Plutarch through Marx.

Distributive: Dist:TMV; WCult:W

CLST 11.16 - Ancient Medicine
This course will explore the Greek and Roman origins of medicine in the West. We will analyze how disease came to be understood as a natural phenomenon, and we will examine the different procedures, philosophies, and social roles of doctors in the ancient world. In this investigation, we will encounter many questions with which we are still grappling today, such as: What constitutes scientific thinking? How do science and cultural context determine and reflect one another? What is human nature? Is a disease a moral failing? How do we understand gender and sex in medical terms? All readings will be in translation, and no prior knowledge of medicine or Greco-Roman antiquity is necessary.

Distributive: Dist:TMV; WCult:W

CLST 11.17 - Greek Athletics
Athletics played a pivotal role in the ancient Greek world, and the history of athletics offers insight some of the basic forces shaping ancient Greek society. The topics we will cover include the origins of Greek athletics; the ancient Olympics; the reasons why the Greeks chose to compete in the nude; the connections between athletics and war, athletics and sex, and athletics and art; and the participation of women in athletics.

Distributive: Dist:SOC; WCult:W

CLST 11.19 - Before Billboards and Twitter: Roman Coins Text
Instructor: Stewart
This hands-on course focuses on the ancient Roman production, the development and use of money at Rome, the logistics of coin production, and the methods for studying coinage to write ancient history. Students learn basic numismatic methodology by handling and studying coins from the collection in Dartmouth’s Hood Museum of Art and prepare material for a coin installation. A final unit treats the ethics of coin collecting and the role of the modern museum.

Distributive: Dist:SOC; WCult:W

CLST 12 - Topics in Classical Archaeology
Courses offered under this rubric explore specific facets of ancient Greek and Roman material culture, of the methodologies employed by classical archaeologists, and of the preservation and reception of Greek and Roman material culture.

CLST 12.02 - Greek and Roman Engineering and Technology
Instructor: Ulrich
This special topics course offers an introduction to the most important machines and processes of Greek and Roman technology. Emphasis will be on the practical implications and applications of ancient technologies and engineering. Within the broad range of technologies surveyed, students will focus on specific case studies to provide deeper analysis and understanding of individual topics. Reading will be based on a textbook and selected chapters and articles from secondary sources. Greek and
Roman writers will also be read in translation. Open to all students.
Distributive: Dist:TAS; WCult:W

**CLST 12.03 - Who Owns the Past?**
Instructor: Hruby/Casana
Modern archaeology grew out of antiquarianism, imperialism, and the attempts of early collectors and scholars to look to the past for aesthetics, to construct identities, and to satisfy their curiosities. This course examines how these legacies influence contemporary archaeology, museum practices, and policies to manage cultural heritage. The central question will be explored utilizing the perspectives of the relevant actors: archaeologists, collectors, museums, developers, descendant communities, national and local governments, and the tourism industry.
Distributive: Dist:SOC; WCult:CI

**CLST 12.04 - Mapping Ancient Greece: Pausanias, Digital Humanities, and GIS**
Experience the history and archaeology of ancient Greece by following in the footsteps of Pausanias. Pausanias was a scholar from the 2nd century CE who traveled the length and breadth of Roman Greece recording all that was “worth seeing.” We will map Pausanias's itinerary in a Google Earth environment and create archaeological and historical tours that incorporate modern research and multimedia about the history, monuments, and artifacts of these places.
Distributive: Dist:TAS; WCult:W

**CLST 14 - Greek History: Archaic and Classical Greece**
Instructor: Christesen
This course is designed to survey the major events in the history of ancient Greece from c.1600 B.C. (the emergence of palatial culture in the Mycenaean World) to 404 B.C. (the end of the Peloponnesian War). During this period, the Greeks formed individual communities and developed unique political structures, spread their culture, language, and religion throughout the Mediterranean, invented democracy (at Athens) and enshrined these values in their art and literature. This course will cover the physical setting of and the archaic legacy to the classical city-state, its economy, its civic and religious institutions, the waging of war between cities, the occurrence and ancient analysis of conflict within the city, and the public and private lives of its citizens and less well-known classes, such as women, children, slaves, etc.
Cross-Listed as: HIST 094
Distributive: Dist:SOC; WCult:W

**CLST 15 - Alexander the Great and the Macedonian Kings**
Instructor: Christesen
This course has two aims: (1) to establish a basic understanding of the history of Alexander the Great and of Greek-speaking peoples in the eastern Mediterranean during the fourth through first centuries BCE and (2) to explore the cultural, military, political, and economic innovations of what was a singular age of experimentation.
Cross-Listed as: HIST 94.04
Distributive: Dist:INT or SOC; WCult:W

**CLST 17 - Roman History: The Republic**
Instructor: Stewart
This course surveys the history of the Roman people from 753 (traditional date of the founding of Rome) to 44 B.C. (the assassination of Julius Caesar). Topics include the development of Roman law, the conquest of all lands bordering on the Mediterranean, and the civil wars that destroyed Republican government. Particular emphasis is placed on the Roman political community: the political, religious and social factors that influenced the definition of the Roman aristocracy in the fourth century, the institutions that maintained the ascendancy of the elite, the military and political values inherent in the citizenship, the social and political mechanisms that militated against civil dissent, and the role of political values in the eventual destruction of Republican government from within.
Cross-Listed as: HIST 94.05
Distributive: Dist:SOC; WCult:W

**CLST 18 - History of the Roman Empire: Roman Principate to Christian Empire**
Instructor: Stewart
This course is designed to survey the major events in the history of Rome from 31 B.C. (Octavian/Augustus' success at the battle of Actium) through the accession and rule of Septimius Severus. During this period, the Roman empire (signifying the territorial extent conquered by Roman armies and administered by Roman officials) became a political community extending throughout the Mediterranean and northwards into Europe as far as Scotland. This course considers the logic of the Roman system: the mechanisms promoting the political identity of diverse peoples as Roman, and the endurance of local traditions within the Roman world; the reasoning whereby the overarching leadership of a single individual was conceived as necessary and good, and the evolving relationship between the princeps and the Roman senatorial aristocracy with a tradition of competitive participation and self identity in politics at Rome; the definition of the Roman frontiers and the role of the army in the assimilation of non-Roman peoples.
CLST 19 - Methods and Theory in Ancient History
Instructor: Stewart
This course is designed to introduce the student to the various types of documentary evidence available to the ancient historian and to the various perspectives for framing and answering historical questions. We consider the interpretive methodologies for each type of document (coin, inscription, papyrus) as well as the particular historical context in which these documents were produced. Topics include the function of coinage and economic thinking in the ancient world and the political significance of the publication of law. The final weeks of the term allow for in-depth consideration of a specific problem in ancient history.

CLST 20 - Greek Archaeology: First Hominids to Mycenaean Palaces
Instructor: Hruby
This course traces the cultural evolution of humanity in the Aegean basin from the era of hunting and gathering (Palaeolithic-Mesolithic) through the early village farming stage (Neolithic) and the formative period of Aegean civilization (Early Bronze Age) into the age of the great palatial cultures of Minoan Crete and Mycenaean Greece. The emphasis in the early part of the course will be on the different economic bases of early life in the Aegean and on regional variation within it. In the latter half of the course, study of the palaces, fortified citadels, and royal tombs at such sites as Knossos, Mycenae, Tiryns, and Troy will lead to discussions of the Greek myths about Atlantis, King Minos' sea empire, and the Trojan War, and their basis in historical fact. May be taken in partial fulfillment of the major in Art History.

CLST 21 - Greek Archaeology: Early Iron Age and Archaic
Instructor: Hruby
This course examines in detail through archaeology the cultural process whereby Greece evolved from a scattered group of isolated and backward villages in the Dark Ages (ca. 1100-750 B.C.) to a series of independent, often cosmopolitan city-states united against the threat of Xerxes' invasion of Greece in 480 B.C. Where did the Greeks acquire the concept of monumental temple architecture and why did they choose to build temples in only two or three different architectural styles? Where did the Greeks learn to write in an alphabetic script and what did they first write down? Who taught the Greeks the art of sculpture and why did they begin by carving what they did? When and why did the Greeks begin to portray their myths in art? May be taken in partial fulfillment of the major in Art History.

CLST 22 - Greek Archaeology: The Classical Period
Instructor: Hruby
From the allied Greeks' expulsion of Persian invaders through their great victories at Plataea and Mykale in 479 B.C. to their catastrophic defeat by Philip, Alexander, and the Macedonians at Chaeronea in 338 B.C., the history of Greek culture is that of dozens of individual city-states in constant competition for hegemony in a wide variety of different arenas, from battlefield to stadium to pan-Hellenic sanctuary. In this course, particular attention is paid to the material cultural achievements of the richest and artistically most influential of these poleis, the city of Athens, when that city developed the western world's first democracy, built the Parthenon, and played host to the schools established by Plato and Aristotle. May be taken in partial fulfillment of the major in Art History.

CLST 24 - The Birth of Rome
Instructor: Ulrich
Why did the Rome emerge as the most powerful city of the Western world? How did later Romans remember and heroize the events that led to their supremacy? We will trace this remarkable transformation through both science and literature: the physical evidence recovered through archaeology, and literary accounts in Greeks' and Romans' prose and poetry that tell stories of Rome's foundation and struggle for survival. Readings include passages from Virgil's *Aeneid* and Livy's *History of Rome*, as well as excerpts from ancient writers that include Dionysius, Strabo, Plutarch, Cicero and Ovid.

CLST 25 - Early Roman Imperial Archaeology: The First Emperors
Instructor: Ulrich
Through archaeological sites and related artifacts, this course examines the Roman empire as it was transformed under the rule of the emperors. This course begins with a close look at the first emperor, Augustus, then continues with an examination of the reigns of the Julio-Claudians, Flavians, and Trajan. Discussion focuses on how ancient Italic traditions were transformed to suit the needs of the Imperial government (for example, the adaptation of the Republican, Hellenized Domus to the Imperial Palatia). The most dramatic change in religious practice is the development of the Imperial cult. Site analysis will stress
the need for an imperial idiom, the accommodation of urban masses and the promotion of a sense of a shared cultural experience. The course will also examine the technological developments that led to Rome's "architectural revolution." May be taken in partial fulfillment of the major in Art History.

Distributive: Dist: ART; WCult: W

CLST 26 - Later Roman Imperial Archaeology: The Golden Age and Beyond

Instructor: Ulrich

This course surveys Roman archaeology from Hadrian to Constantine. Emphasis is placed upon the Antonine and Severan emperors, then shifts rapidly over most of the mid-third century to focus on Diocletian and the tetrarchy, Constantine and the move of the capital to Constantinople. The course ends with a look at the great church of Hagia Sophia, and consideration of the debt of early Christianity to pagan religious traditions. A major component of the course is the study of the Romanization of the provinces, and, more specifically, the complex process of cultural hybridization (imported Roman traditions melding with local practices). Such sites as Baalbek, Petra, Dura-Europos, Palmyra, Roman Egypt, Tripolitania, Tunisia and Algeria, Constantinian Jerusalem, Trier, Spalato, etc., may be included. May be taken in partial fulfillment of the major in Art History.

Distributive: Dist: ART; WCult: W

CLST 29 - Independent Study Project

Instructor: Christesen/Hruby; Stewart/Ulrich

The independent study project to be completed by a student while a member of the Dartmouth Foreign Study Program in Greece or Italy. Prerequisite membership in the Foreign Study Program.

Under normal circumstances, students participating in the Classics Department’s Foreign Study Programs in either Greece or Rome will be enrolled in CLST 30.01, CLST 30.02, and CLST 31.

CLST 30.01 - Classical Art and Archaeology: Study Abroad (with CLST 30.02, 2 course credits)

Instructor: Staff

Credit for this course is awarded to students who have successfully completed the work of the Dartmouth Foreign Study Program in Greece or Italy. May be taken in partial fulfillment of the major in Art History.

Prerequisite: membership in the Foreign Study Program.

Distributive: Dist: ART; WCult: W

CLST 30.02 - Classical Art and Archaeology: Study Abroad (with CLST 30.01, 2 course credits)

Credit for this course is awarded to students who have successfully completed the work of the Dartmouth Foreign Study Program in Greece or Italy. May be taken in partial fulfillment of the major in Art.

Prerequisite: membership in the Foreign Study Program.

Distributive: ART; WCult: W

CLST 31 - Ancient Literature and History: Study Abroad

Instructor: Hruby

Credit for this course is awarded to students who have successfully completed the work of the Dartmouth Foreign Study Program in Greece or Italy.

Prerequisite: membership in the Foreign Study Program

Distributive: WCult: W

CLST 40 - Translation: Theory and Practice

Translation is both a basic and highly complicated aspect of our engagement with literature. We often take it for granted; yet the idea of meanings "lost in translation" is commonplace. In this course we work intensively on the craft of translation while exploring its practical, cultural and philosophical implications through readings in theoretical and literary texts. All students complete a variety of translation exercises, and a substantial final project, in their chosen language. Students who wish to use the course for CLST 40 credit must work from Greek or Latin, and should normally have completed at least 2 courses in Greek or Latin above the level of 10, or equivalent.

Prerequisite: Good reading knowledge of a foreign language (usually equivalent to fulfilling the Dartmouth language requirement). Students unsure of their linguistic preparation should consult the instructor.

Cross-Listed as: COLT 19.01

Distributive: Dist: INT or LIT; WCult: W

CLST 85 - Independent Reading and Research

Instructor: Graver

CLST 87 - Thesis I

Instructor: Graver

Independent research and writing under supervision of a member of the Classics faculty. Open to honors students in their senior year and to other qualified students by consent of the Department.

Students are awarded one course credit for successful completion of this course at the end of the third term of study. Students subsequently register for CLST 88, and
continue with their coursework into a third term. Students do not register for a third term. A final grade will replace the “ON” for both this course and CLST 88 upon completion of CLST 88 at the end of the third term of coursework.

Prerequisite: permission of the instructor.

**CLST 88 - Thesis II**

Independent research and writing under supervision of a member of the Classics faculty. Open to honors students in their senior year and to other qualified students by consent of the Department.

Students who have completed one term of work on an honors thesis or equivalent project with registration for CLST 87, GRK 87, or LAT 87, and who have been recommended by their research advisor to continue, are issued permission to register for CLST 88. At the end of this course, a grade of "ON" is assigned pending final revisions, an oral presentation to the full department, and submission of the final version, all of which normally happens during the spring term. The "ON" is then changed to a final grade.

The full honors sequence consists of CLST/LAT/GRK 87 plus CLST 88 and carries two credits. Although work on the project may continue during the spring term, students do not register for a third course.

**GRK - Greek Courses**

*To view Classics requirements, click here (p. 179).*

**GRK 1 - Introductory Greek**

Instructor: Staff

Study of Greek grammar, syntax, and vocabulary accompanied by reading of simple Greek prose selections. Never serves in partial satisfaction of the Distributive or World Culture Requirement.

**GRK 1.02-3.02 - Intensive Greek**

Instructor: Tell

This course will introduce students to the fundamentals of Greek grammar in an intensive mode. Students are required to enroll for both time sequences. Through intensive drills and graded readings, the basic features of Greek grammar will be presented rapidly. Completion of this double course will allow a student to enroll in Greek 10 or to read simple Greek prose independently. The course satisfies the college language requirement. Never serves in partial satisfaction of the Distributive Requirement.

**GRK 3 - Intermediate Greek**

Instructor: Whaley

Continued study of Greek grammar and syntax. Readings in Greek prose authors. Completion of Greek 3 satisfies the College language requirement. Never serves in partial satisfaction of the Distributive or World Culture Requirement.

Prerequisite: GRK 1, or equivalent

**GRK 10 - Readings in Greek Prose and Poetry**

Instructor: Tell

Readings in Greek prose and poetry at the intermediate level, typically including selections from Plato and/or Euripides.

Prerequisite: GRK 3, or equivalent.

Distributive: Dist:LIT; WCult:W

**GRK 10.13 - New Testament**

Studies the collection of Christian texts now called the “New Testament” for the insights they provide into the complex cultural interactions in the first-century Mediterranean world. Three primary texts, the Gospel of Mark, Paul’s letter to the Colossians, and Paul’s letter to James, will be examined in light of their original Jewish context and their embeddedness in Greek thought and Roman socio-political structures. This small-enrollment class is taught conjointly with GRK 29, but with assignments and assessment appropriate for students reading entirely in English.

Distributive: Dist:TMV; WCult:W

**GRK 11 - Modern Greek I**

Instructor: Kacandes

An introduction to Modern Greek as a spoken and written language. The work includes regular practice in class and scheduled drill-sessions. No previous knowledge of Greek is assumed. Never serves in partial satisfaction of the Distributive or World Culture Requirement.

**GRK 20 - Homer**

Instructor: Tell

Reading in Greek and discussion of selections from the Iliad or Odyssey. Reading of the whole poem in translation and discussion of its character, style, and composition.

Prerequisite: GRK 10, or equivalent.

Distributive: Dist:LIT; WCult:W

**GRK 24 - Theatre**

A study of the tragedy and comedy of Classical Greece through detailed reading of at least one play of Aeschylus, Euripides, Sophocles, or Aristophanes.
**GRK 26 - Intellectual Enquiry in Classical Athens**

Instructor: Graver

This course centers on the period of intellectual ferment and enquiry in fifth- and fourth-century Athens, when traditional beliefs came under scrutiny and many different figures laid claim to truth telling, from orators and sophists to poets and the practitioners of philosophy and history. Texts studied will be taken from the following: philosophy (the sophists, the early dialogues of Plato); history (Herodotus and/or Thucydides); the medical writers; dramatists (Euripides, Aristophanes): orators.

Prerequisite: GRK 10 or equivalent.
Distributive: Dist:TMV; WCult:W

**GRK 28 - Philosophy**

Instructor: Staff

Our goals are to learn to read Plato's Greek with accuracy and comprehension, and to become engaged with Plato's thought through a close study of one of his dialogues. We will have occasion to consult other Platonic texts in translation and in Greek.

Prerequisite: GRK 10 or equivalent.
Distributive: Dist:TMV; WCult:W

**GRK 29 - New Testament**

Instructor: Whaley


Prerequisite: GRK 10, or equivalent.
Distributive: Dist:TMV; WCult:W

**GRK 30 - Special Topics in Greek**

Instructor: Staff

Course offerings under this rubric vary from year to year. Emphasis is placed on writing and research skills as well as the development of reading ability in Greek.

**GRK 30.04 - Ancient Fiction: The Greek and Roman Novels**

Close reading of Greek and Roman novels in the original in addition to wider-reading in translation, with particularly attention to narrative, genre, and literary and cultural context.

Cross-Listed as: LAT 30.03
Distributive: Dist:LIT; WCult:W

**GRK 30.05 - Mythology Seminar**

The mythological narratives of the Greeks and Romans can be studied at numerous different levels and by a variety of methods. In this seminar, we consider a series of myths that are of particularly evocative of cultural anxieties concerned with birth, death, and rebirth; gender and sexuality; and personal identity.

Cross-Listed as: LAT 30.04
Distributive: Dist:LIT; WCult:CI

**GRK 30.06 - Thinking Big: Heroes in Aristophanes and Plautus**

In this class we read comic texts produced in Classical Athens and Republican Rome, to consider the literary features of the comic genre and the political significance of comedy in performance. We focus on the comic hero who defies all obstacles to win desirable social goods (food, wine, sex; peace, freedom).

Cross-Listed as: LAT 30.06
Distributive: Dist:LIT; WCult:W

**GRK 30.07 - The End of the World: Jewish and Christian Apocalyptic Literature in the Hellenistic Era**

The Hellenistic era was a period of remarkable theological and literary creativity within the Jewish and Christian communities, including the development of a unique genre, apocalyptic literature. Apocalyptic texts, which portend a catastrophic end to the world, are notoriously difficult to interpret due to their use of fantastical imagery and often cryptic symbolism. In this class we will explore several texts in depth, including portions of Daniel from the Hebrew scriptures, the Book of Enoch from the Maccabean period, the Apocalypse of John (Revelation) from the Christian scriptures, and the 2nd century Christian text Apocalypse of Peter. In addition to learning how to read apocalyptic literature, we will examine the socio-historical context of these texts, their relationship to communities under duress and how they have been reimagined by later generations.

Distributive: Dist:TMV; WCult:W

**GRK 30.08 - History and Structure of the Greek Language**

Instructor: Pulju

This course focuses on the grammar, pronunciation, and writing of ancient Greek, starting from its origin in Proto-Indo-European (c. 4000 BC), proceeding through Homer to classical Attic (1st millennium BC), and ending with the post-classical era. Through analysis of language data and reading of selected ancient texts, students will gain a greater mastery of synchronic language patterns, and also will understand the diachronic origins of those patterns.

Cross-Listed as: LING 11.15
Distributive: Dist:QDS; WCult:W

**GRK 85 - Independent Reading and Research**
Instructor: Graver

**GRK 87 - Thesis I**
Instructor: Graver

Independent research and writing under supervision of a member of the Classics faculty. Open to honors students in their senior year and to other qualified students by consent of the Department. Students register for GRK 87, rather than CLST 87, when their intended thesis or equivalent honors project involves substantial amounts of reading in ancient Greek.

Students pursue the research program laid out in their thesis proposal. By the end of this first term of honors work, they will have begun substantive work on a thesis or equivalent project; e.g., a first chapter. Upon the recommendation of the research advisor, the department may, at the end of the first term, give permission for the student to register for CLST 88.

A grade of "ON" is assigned pending completion of the thesis or equivalent project later in the year, at which point the "ON" will be replaced by a final grade. If the advisor does not recommend continuation to CLST 88, the "ON" will be replaced with a letter grade upon completion of a shorter independent paper or project approved by the research advisor, at which point the student may petition the Classics Department for Culminating Experience credit to be assigned.

Prerequisite: permission of the instructor.

**LAT - Latin Courses**

To view Classics requirements, click here (p. 179).

**LAT 1 - Introductory Latin**
Instructor: Staff

Introduction to Latin grammar, vocabulary, and syntax through prose readings of gradually increasing difficulty. Never serves in partial satisfaction of the Distributive or World Culture Requirement.

**LAT 2 - Introductory Latin II**
Instructor: Staff

Continues the study of Latin language and Roman culture begun in Latin 1. The structures of the language are introduced through readings of gradually increasing complexity. The narrative content of the course brings in historical persons and events from the last quarter of the first century A.D., both in the province of Britannia and in the city of Rome. The class will also spend some time studying real inscriptions, curse tablets, and coins, as well as composing in Latin as a means to increasing reading fluency. This course is primarily designed for students who have taken Latin 1 at Dartmouth, but will also be a good fit for those who have had one or more years of high school Latin and want to reinforce their skills before moving on to reading unadapted Latin in Latin 3.

**LAT 3 - Intermediate Latin**
Instructor: Staff

Continued study of Latin grammar, vocabulary, and syntax with reading of selected literary texts. Completion of Latin 3 satisfies the College language requirement. Never serves in partial satisfaction of the Distributive or World Culture Requirement.

Prerequisite: LAT 1, or equivalent.

**LAT 10 - Readings in Latin Texts**
Instructor: Lynn

Continuous readings of Latin prose and poetry, including selections from Martial, Catullus, Ovid, Pliny, and Tacitus, together with additional features of Latin grammar and syntax. This course is the natural continuation of Latin 3 and serves as preparation for higher-numbered courses.

Distributive: Dist:LIT; WCult:W

**LAT 15 - Literature and the Romans**
Instructor: Oppen

This course introduces some new ways of thinking about reading and writing in the Roman world. Beginning with the physical history of ancient books and publication methods, we will proceed to examine typical tricks and strategies of Roman writers to inform, move, or amuse their readers. Readings are a mixture of poetry (e.g., Catullus, Vergil’s Eclogues, short poems of Martial) and prose (e.g., Cicero's personal letters, biographical notices), supported by a structured vocabulary program and review of key grammatical concepts.

Prerequisite: LAT 3 or LAT 10, or equivalent preparation in secondary school.

**LAT 18 - Intermediate Topics in Latin**

Meets conjointly with an upper-division course and shares much of its content, but with different requirements and assessments. Typically students taking the course at the intermediate level have shorter reading assignments in the original language and a greater emphasis on language development. For instance, they may take a language test instead of writing the research paper at the end of the term.

**LAT 18.01 - Intermediate Topics in Latin: Mortality and Immortality in Roman Philosophy**

Meets conjointly with LAT 27 (Roman Philosophy) and shares much of its content, but with shorter Latin reading
assignments and a greater emphasis on language development.

Distributive: Dist:TMV; WCult:W

**LAT 21 - Love Poetry**

Instructor: Graver

An exploration of the rich tradition of amatory verse at Rome. Readings may come from the love-elegists Tibullus, Propertius, and Ovid, and/or other poets, including Catullus and Horace. Topics to be considered include the art of persuasion in erotic literature; Roman attitudes towards gender, sexuality, and desire; and the emergence and development of Augustan culture.

Distributive: Dist:LIT; WCult:W

**LAT 23 - Roman Drama**

Reading ancient drama allows us to consider the function of artistic production to engage with challenging political and social questions. The class will read from the comedies of Plautus and Terence and/or the tragedies of Seneca, and will explore features of the comic and/or tragic genre. Latin readings may be combined with one or more Greek plays read in translation.

Distributive: Dist:LIT; WCult:W

**LAT 25 - Roman Historical Writing**

Instructor: Stewart

Readings drawn from the rich tradition of Roman historical writing. Selected readings from the works of Caesar, Sallust, Livy, and/or Tacitus will enable the class to think about the character of Latin prose writing in different periods and about the strategies of historians for offering critique and/or affirmation of those in power.

Distributive: Dist:SOC; WCult:W

**LAT 27 - Roman Philosophy**

Instructor: Staff

Educated Romans studied Greek philosophy with enthusiasm and found their own ways to express philosophical ideas in writing. Readings selected from the works of Cicero, Lucretius, Seneca, and others will illustrate how Greek thought was augmented and transformed in the Roman period. Not open to students who have previously received credit for LAT-18.01.

**LAT 28 - Literature of the Later Empire and the Middle Ages**

Readings from the late Empire to the high Middle Ages that may include selections from the Vulgate, St. Augustine's *Confessions*, the *Passion of Saints Perpetua and Felicity*, Hrotsvitha's *Dulcitius*, and the *Carmina Burana*.

Prerequisite: LAT 10 or equivalent.

Distributive: Dist:LIT; WCult:W

**LAT 29 - Cicero and Roman Legal Argument**

Instructor: Stewart

In this class we will read the text of Cicero’s speech for Aulus Cluentius (Pro Cluentio) as an example of Roman legal argument. In 66 BCE Cicero defended Aulus Cluentius on a charge of murdering his stepfather Statius Albius Oppianicus (de sicariis et veneficiis). Both men—as well as many others involved in the case—came from local towns in Roman Italy. The stakes for conviction: loss of civic status, essentially a social death. Cicero’s defense of his client provides a masterly example of courtroom defense strategies (the mustering of evidence, witness testimony, manipulation of legal procedures) and the courtroom story-telling that created presumptive realities of “wrong” and “truth,” of “innocence” or “guilt.” The speech thus affords insight into questions of Roman courtroom procedure and judicial integrity, of the assimilation of Italians within the Roman social and political community and access to Roman law, and of the social expectations.

Distributive: Dist:LIT; WCult:W

**LAT 30 - Topics in Latin Literature**

Representative texts and topics that highlight the complex relationship between Greek and Latin literature. Offerings vary from year to year to allow opportunities to study subject matter such as the ancient novels and Roman reinterpretations of Greek myth. Emphasis is placed on writing and research skills as well as the development of reading ability in Latin.

**LAT 30.03 - Ancient Fiction: The Greek and Roman Novels**

Close reading of Greek and Roman novels in the original in addition to wider-reading in translation, with particular attention to narrative, genre, and literary and cultural context.

Cross-Listed as: GRK 30.04

Distributive: Dist:LIT; WCult:W

**LAT 30.04 - Mythology Seminar**

The mythological narratives of the Greeks and Romans can be studied at numerous different levels and by a variety of methods. In this seminar, we consider a series of myths that are of particularly evocative of cultural anxieties concerned with birth, death, and rebirth; gender and sexuality; and personal identity.

Cross-Listed as: GRK 30.05
LAT 30.06 - Thinking Big: Heroes in Aristophanes and Plautus

In this class we read comic texts produced in Classical Athens and Republican Rome, to consider the literary features of the comic genre and the political significance of comedy in performance. We focus on the comic hero who defies all obstacles to win desirable social goods (food, wine, sex; peace, freedom).

Cross-Listed as: GRK 30.06
Distributive: Dist:LIT; WCult:CI

LAT 30.08 - History and Structure of the Latin Language

Instructor: Pulju

This course focuses on the grammar, pronunciation, and writing of Latin, starting from its origin in Proto-Indo-European (c. 4000 BC), proceeding through early Latin into the classical period (1st cent. BC to 1st cent. AD), and ending with the post-classical era. Through analysis of language data and reading of selected ancient texts, students will gain a greater mastery of synchronic language patterns, and also will understand the diachronic origins of those patterns.

Cross-Listed as: LING 11.14
Distributive: Dist:QDS; WCult:W

LAT 31 - The Italian Countryside

Instructor: Graver

The environmental concerns of our own time find a counterpart in the Roman fascination with the beauty and fragility of the rural landscape and natural world. Readings may come from pastoral poetry, represented especially by Vergil’s Eclogues; the literature of farming and agriculture, including Vergil’s Georgics; and related themes in works by Varro, Horace, Tibullus, and others.

Distributive: Dist:LIT; WCult:W

LAT 32 - The Poetry Book

Studies the development of the carefully crafted and deliberately arranged book of poetry at Rome, including one complete libellus in Latin with the possibility of additional examples in translation. Authors that may be read include Vergil, Horace, Propertius, Ovid, Statius, and Martial. As time allows, the class will also explore later examples of book design and artistry, drawing on Dartmouth’s collection of rare books.

Distributive: Dist:LIT; WCult:W

LAT 33 - The Literature of Science

The ancient Greeks and Romans studied natural phenomena passionately and considered the pursuit of scientific knowledge a mind-transforming experience that was sublime and potentially even sacred. This class will study one or more key texts in the Roman scientific tradition. Readings will be drawn from poets, such as Lucretius and Manilius, and/or prose authors, like Seneca and the Elder Pliny. Potential topics include ancient physics, astronomy, meteorology, and natural history.

Distributive: Dist:TMV; WCult:W

LAT 34 - Letter-writing in the Roman World

Instructor: Staff

The Romans considered letter-writing an important skill and adapted the letter form to many purposes: maintaining friendship, promoting political ends, consolation, education, artistry, and sheer entertainment. Readings will come from the prose letters of Cicero, Seneca, or Pliny; personal notes and letters recovered from archaeological sites; and/or the verse epistles of Ovid or Horace.

LAT 35 - Satire and Humor

Basically a humorous monologue on contemporary topics, verse satire is the one kind of writing the Romans claimed as entirely their own. The class will read some of the best-known examples by Horace and Juvenal and may also explore other examples of Roman humor: epigrams by Catullus or Martial, Seneca’s Pumpkinification, Petronius’s Satyricon.

Distributive: Dist:LIT; WCult:W

LAT 36 - Independent Reading and Research

Instructor: Graver

LAT 87 - Thesis

Independent research and writing under the supervision of a member of the Classics faculty. Open to honors students in their senior year and to other qualified students by consent of the Department.

Prerequisite: permission of the instructor.

Cognitive Science
Chair: A. Roskies (Philosophy)
Professors D. Balkom (Computer Science), R. H. Granger (Psychology), J. V. Haxby (Psychology), A. L. Roskies (Philosophy), L. Whaley (Classics, Linguistics); Associate Professor D. Kraemer (Psychology and Education); Assistant Professor J. Phillips (Cognitive Science); Research Associate Professor: M. Gobbini (Psychology), Post-Doc: M.C. Nizzi, W. Ratoff

To view Cognitive Science courses, click here. (p. 199)
Cognitive Science is the study of cognition from an interdisciplinary perspective and is largely informed by models of information processing. Contributing disciplines include cognitive psychology, computer science, neuroscience, philosophy, linguistics, as well as other fields, such as anthropology and sociology. Topics of focus include perception, memory, reasoning and language.

Dartmouth’s cognitive science program is issues-oriented and relies on methods drawn from a number of disciplines. Students pursuing a major should become familiar with the basic approaches to cognition of psychology, philosophy, computer science and linguistics. This breadth is complemented by the depth provided by the focus area, elective courses chosen under the guidance of an advisor, which allows students to gain specialized knowledge in a particular topical area of cognitive science.

Cognitive Science Major

Cognitive Science MAJOR for Class Years 2020 and Later:

1. PREREQUISITES:
   a) COGS 1: Introduction to Cognitive Science (to be taken before declaring the major, unless by special permission)
   b) One from ECON 10, GOV 10, MATH 10, PSYC 10, QSS 15, QSS 45, or SOCY 10, or equivalent course with statistics, data or quantitative analysis, with permission of the Chair.

2. REQUIREMENTS: Eleven additional courses, including:
   a) LING 1 Introductory Linguistics
   b) COSC 1 Introduction to Programming and Computation
   c) COGS 25/PHIL 25 Philosophy of Cognitive Science
   d) PSYC 28 Cognition
   e) PSYC 11 Laboratory in Psychological Science, or equivalent course with Laboratory component with permission of the Chair
   f) COGS 80 Major Seminar in Cognitive Science (ideally to be taken Junior year)
   g) One Culminating Experience: COGS 85 or COGS 86-87, or a second term of COGS 80
   h) Four courses in a Focus Area, examples include
      • Artificial Intelligence and Robotics
      • Cognitive Engineering
      • Computational Modeling
      • Consciousness
      • Language Acquisition and Development
      • Learning and Education
      • Neuroeconomics
      • Perception, Representation and Knowledge

   Students may be allowed to design their own focus area, which must include a description of a coherent problem area and rationale for the course of study, and 4 relevant (and available) courses, with two alternates. Focus area proposals must be approved by the advisor and the chair of the Cognitive Science Program.

Honors Program

The Honors Program in Cognitive Science offers qualified students the opportunity to undertake independent research under the direction of a faculty member. Students who plan to undertake such a project must have a 3.33 grade average in all courses taken at the College and an average of 3.5 for courses within the major. It is important to consult with a prospective advisor as early as possible, preferably during the junior year.

Applications to the Honors Program may be submitted to the Chair either during the spring of the junior year or the fall of the senior year. The project itself normally lasts two terms. Students will take COGS 86 the first term and COGS 87 the second. The completed thesis is to be submitted during the winter or spring term, and an oral presentation will be given at a special seminar of students and faculty.

COGS - Cognitive Science

To view Cognitive Science Requirements, click here (p. 198).

COGS 1 - Introduction to Cognitive Science

Instructor: Roskies/Phillips

Cognitive Science aims to understand how the mind works by using tools and insights from a variety of fields including experimental psychology, computer science, linguistics, vision science, philosophy, anthropology, behavioral economics, and neuroscience. This course will introduce you to many of the major tools and theories from these areas as they relate to the study of the mind. We will tour mental processes such as perception, reasoning, memory, attention, imagery, language, intelligence, decision-making, and morality, and discover many strange and amazing properties of mind.

Distributive: Dist:SOC

COGS 2 - Cognition

Instructor: TBD
An introduction to the study of thought, memory, language, and attention from the point of view of information processing. In surveying research in cognitive psychology, substantial contact is made with related cognitive sciences, such as artificial intelligence, linguistics, neuroscience, and contemporary philosophy. In the course of examining general principles of cognition, the following topics are discussed: mental imagery; concepts; reasoning; discourse, monetary and courtroom decision making; eye-witness testimony; social attribution and stereotyping; language in chimpanzees; expert systems; the relationship between information processing and conscious experience; and the philosophical foundations of cognitive science. 

Prerequisite: PSYC 1 or PSYC 6 or COSC 1
Cross-Listed as: PSYC 28
Distributive: SOC

**COGS 11.02 - Representation and the Brain**

Neuroimaging, and with it cognitive neuroscience, is undergoing a conceptual revolution. This course uses philosophical and neuroscientific approaches to explore the changes in our conceptions of mental and neural representation that are prompted by recent advances in brain imaging that use multivariate approaches to analyzing brain imaging data. These new methods radically change the way we conceive of the nature of mental representation. Using a combination of philosophical texts, scientific review papers, and primary research papers, we try to re-conceptualize how the brain represents the world.

**COGS 11.03 - Mind, Language, and Morality**

Instructor: Phillips and Plunkett

This course examines questions about the connection between mind, language, and normative domains such as morality, politics, and law. For example: how should we understand normative language that seems to be fundamentally about prescribing ways of acting, rather than about describing reality? Are moral judgments more a matter of emotion, or of belief? Can we reconcile a commitment to moral objectivity with our best scientific understanding of moral thought and talk? This course will engage such questions from a fundamentally interdisciplinary perspective, engaging with work from philosophy, cognitive science, linguistics, and psychology.

In so doing, we will explore how empirical work can inform philosophical inquiry, and how philosophical inquiry can continue to guide ongoing research in the cognitive sciences. Students will be encouraged to work in interdisciplinary teams to create their own co-authored research.

Cross-Listed as: COCO 031 PHIL 50.35
Distributive: Dist:TMV

**COGS 11.04 - Face Perception**

Instructor: Gobbini

Faces are one of the richest sources of information for non-verbal communication. Through faces we recognize identity and infer the emotional and mental states of others, as well as where they are directing their attention. This course will focus on the neural mechanisms for face perception and how these mechanisms facilitate rapid extraction of cues that facilitate social interaction. Particular relevance will be put on the neural systems for representation of person knowledge. In addition to weekly readings, students will have a written exam at the end of the course.

Cross-Listed as: PSYC 51.02
Distributive: Dist:SOC

**COGS 11.05 - Moral Psychology**

Moral psychology is the interdisciplinary study of human moral cognition. Philosophers have long theorized the nature of moral judgment from the armchair. Now psychologists and cognitive neuroscientists are investigating hypotheses about how our brains make ethical decisions in the lab. In this class, we will read, and bring together in conversation, classic and cutting edge work from philosophy, psychology, and the neurosciences on the nature of moral cognition. Topics include: Are moral judgments essentially emotional? Or is moral thought a species of reason? Can moral beliefs, by themselves, motivate us to action? Or must a background desire to do the right thing be involved? Is all human motivation, by its nature, self-interested? Or is genuine altruism possible? And should empirical findings about the neurobiological and evolutionary bases of our moral intuitions lead us, as some have argued, to reject certain philosophical moral theories – Kantianism, say – in favor of others – Utilitarianism – or not?

Distributive: Dist:TMV

**COGS 21 - Introduction to Computational Neuroscience**

Instructor: Granger

Your brain is composed of low-precision, slow, sparsely-connected computing elements, yet it outperforms any extant computer on tasks ranging from perception to planning. Computational Neuroscience has as its twin goals the scientific understanding of how brains compute thought, and the engineering capability to reconstruct the identified computations. Topics in the class included anatomical circuit design, physiological operating rules, evolutionary derivation, mathematical analyses, and emergent behavior, as well as development of applications from robotics to medicine.

Cross-Listed as: PSYC 40; COSC 16
COGS 25 - Philosophy of Cognitive Science
Instructor: Roskies
What is the mind and how can we model it? Cognitive science offers a distinctive approach to some of the great philosophical questions about the mind. But what does it tell us? This course will cover the classical foundations of cognitive science, and some of the more recent developments in the field. We will study the computational theory of the mind and its implications, connectionism, theories of embodiment, dynamical systems, and recent statistical approaches to cognition. (Not open to students who received credit for PHIL 010/COGS 11.01.)
Prerequisite: One Philosophy course, or permission of the instructor.
Cross-Listed as: PHIL 025
Distributive: Dist:TAS

COGS 26 - Philosophy and Computers
Instructor: Ratoff
The accomplishments of artificial intelligence research and the widespread use of computers in our society confront us with many interesting philosophical questions. What are the limits of artificial intelligence? Could computers ever think or feel? Is the Turing test a good test? Are we really computers? Are there decisions computers should never make? Do computers threaten our privacy in special ways? This course will consider such issues in order to explore the philosophical implications of computing. Open to all classes.
Prerequisite: One Philosophy course, one Cognitive Science course, one Computer Science course, or permission of the instructor.
Cross-Listed as: PHIL 026
Distributive: Dist:TAS

COGS 44 - Artificial Intelligence
Instructor: Quatrini Li, Subrahmanian
An introduction to the field of Artificial Intelligence. Topics include games, robotics, motion planning, knowledge representation, logic and theorem proving, probabilistic reasoning over time, understanding of natural languages, and discussions of human intelligence.
Prerequisite: COSC 10. COSC 30 is recommended.
Cross-Listed as: COSC 76
Distributive: TAS

COGS 50 - Topics in Cognitive Science
Instructor: TBD
This course is a mid-level topical course in Cognitive Science. Course offerings will touch on disciplines across the cognitive sciences. Potential course subtitles may be Cognitive Development, Mental and Brain Representation, Evolution of Brain and Mind, toRationality, Language and Culture, or Machine Models of Mind. Course offerings will change each term.

COGS 50.01 - Philosophy and Neuroscience of Animal Minds
Instructor: Roskies, van der Meer
This course will explore the nature of non-human non-linguistic animal thought, from both philosophical and empirical perspectives. Drawing on readings from philosophy and scientific journals, we will focus on three questions: (1) can nonhuman animals feel pain?; (2) can nonhuman animals exhibit “mental time travel”; and (3) can they represent the mental states of others? Emphasis will be on integrating insights from both fields to better understand the nature of thought.
Cross-Listed as: COCO 022

COGS 50.02 - The Philosophy and Cognitive Science of Consciousness
Conscious experience is at once both completely familiar and utterly mysterious: how is it that electrical activity in a lump of grey matter – the brain – gives rise to the Technicolor phenomenology of our conscious experience? If human beings are just biological machines, then how is it possible that we have a subjective point of view on the world? Why are we not just mindless robots, that produce behavior in light of stimulations from the environment, but lack any inner awareness or consciousness? In this class we will read, and bring together in conversation, cutting edge work from philosophy, psychology, and the neurosciences on the nature of consciousness.
Prerequisite: One Philosophy course, one Cognitive Science course, or permission of the instructor

COGS 50.04 - Theories of Consciousness
Instructor: Ratoff
Conscious experience is at once both completely familiar and utterly mysterious: how is it that electrical activity in a lump of grey matter – the brain – gives rise to the Technicolor phenomenology of our conscious experience? If human beings are just biological machines, then how is it possible that we have a subjective point of view on the world? Why are we not just mindless robots, that produce behavior in light of stimulations from the environment, but lack any inner awareness or consciousness? In this class we will read, and bring together in conversation, cutting edge work from philosophy, psychology, and the neurosciences on the nature of consciousness.
Prerequisite: One Philosophy course, one Cognitive Science course, or permission of the instructor
Cross-Listed as: PHIL 35.01
Distributive: Dist:TMV

**COGS 50.05 - Psycholinguistics**

The deceptively simple tasks of perceiving and producing language require the performance of complicated and often overlapping functions at high speeds. How can we study the representations and processes that make language possible as they interact in the black box that is the human mind? The goal of this course is to provide a broad understanding of research focusing on how the human mind structures, stores and accesses linguistic information.

Cross-Listed as: LING 50.01, PSYC 51.13

Distributive: Dist:SOC

**COGS 50.06 - Computational Psych of Language**

Computational approaches are becoming increasingly prevalent in cognitive science and psychology as they allow us to leverage advances in robust datasets and computing power to investigate aspects of human cognition and behavior such as language. This course seeks to address the processing of language in the mind and brain through computational modeling. The goal of this course is to provide a broad understanding of research utilizing computational psycholinguistics to investigate how the human mind acquires, stores, and accesses language. This course will also serve as an introduction to methodology utilized in this field and provide hands-on opportunities to produce research focusing on language processing.

Cross-Listed as: LING 50.06

Distributive: Dist:TAS

**COGS 80 - Major Seminar in Cognitive Science**

Instructor: Roskies

This seminar is required for majors. Each week a member of Dartmouth’s faculty working in diverse areas of cognitive science will present current work in a lunchtime seminar. Prior to the lecture you will work through related papers as a group in preparation, and the day following the lecture you will meet with the professor to discuss the material further. This seminar will prepare you for independent research in Cognitive Science.

**COGS 81 - Major Seminar in Cognitive Science II**

Instructor: Roskies, Nizzi

This is the second year of COGS 80. Each week a member of Dartmouth’s faculty working in diverse areas of cognitive science will present current work in a lunchtime seminar. Prior to the lecture you will work through related papers as a group in preparation, and the day following the lecture you will meet with the professor to discuss the material further. This seminar will prepare you for independent research in Cognitive Science.

**COGS 85 - Independent Study and Research**

Instructor: Roskies

This course offers qualified students of cognitive science the opportunity to pursue work on a topic of special interest through an individually designed program. Requires permission of the instructor and the Chair.

**COGS 86 - Honors Research**

Instructor: Roskies

COGS 86 and COGS 87 consist of independent research and writing on a selected topic under the supervision of a Program member who acts as advisor. Open to honors majors in Cognitive Science. Permission of the thesis advisor and the Chair required.

Students are awarded one course credit for successful completion of this course upon completion of COGS-087. Students register for COGS-086 and receive a grade of “ON” (ongoing) at the end of the term. Students then register for COGS-087 the subsequent term to complete the coursework. A final grade will replace the “ON” in COGS-086 upon completion of COGS-087.

**COGS 87 - Honors Thesis**

Instructor: Roskies

COGS 86 and COGS 87 consist of independent research and writing on a selected topic under the supervision of a Program member who acts as advisor. Open to honors majors in Cognitive Science. Permission of the thesis advisor and the Chair required.

Students are awarded one course credit for successful completion of this course. Students who have registered for COGS-086 register for COGS-087 to complete the coursework. A final grade will replace the “ON” for COGS-086 upon completion of this course for a total of 2 credits for COGS-086 and COGS-087.

**College Courses**

College Courses, introduced in 1968-1969, are interdisciplinary in nature and are intended to appeal to students of widely differing backgrounds and interests. Courses scheduled to be offered from 2018 Fall through 2019 Summer are listed below; courses for later terms will be announced during 2019 winter term.

*To view College Courses courses, click here (p. 202).*

**COCO - College Courses**

*To view College Courses information, click here (p. 202).*
COCO 1.03 - Fashion and Identity: The Power of Clothing
Instructor: O’Rourke, Carroll

Although clothing is part of everyday life, we often do not consciously understand its messages. This course will examine clothing and fashion in high art, film, television, and the “real” world in order to explore the overt and subliminal messages regarding power, gender, and status over time and still today. We will study the external, clothed body in relation to a performance of the self and the unconscious categorizations of gendered, sexed, and classed positions. We will investigate the power of dress and ornament to reinforce or challenge gender norms, ideologies of power, and insider/outsider status. The class will focus on a broad timeframe (@ 1500-2000) and will look at examples such as queens and pop stars, the gentleman and the dandy, religious garb and culture clash, drag and cross-dressing, empire and globalization, among others.

Distributive: Dist:ART; WCult:W

COCO 3.01 - Dave the Potter: Slavery Between Pots and Poems
Instructor: Chaney, M

This course examines the work of David Drake, a South Carolinian slave who made some of the largest ceramic storage vessels in America during the 1850s, signing them and etching sayings and poems onto them as well. This seminar engages with Drake's poetry-pottery through critical and historical research, interpretive writing, and our own creative adventures in ceramic handicrafts. In addition to writing your own updated imitations of Dave Drake's poetry and attempting ceramic facsimiles of his earthenware, students will also spend time in the letterpress studio as a means of acquiring a deeper historical and aesthetic appreciation of Dave's life and work; it was while working as a typesetter for a regional newspaper that Dave acquired literacy. As a culminating assignment, students will contribute chapters to a scholarly book on Drake, which the instructor will edit.

Cross-Listed as: AAAS 82.05 ENGL 52.03

Distributive: Dist:ART; WCult:W

COCO 6 - Autism: Science, Story, and Experience
Instructor: Hudenko, B; Chaney, S

What is autism? How do scientists, clinicians, and the public understand it? Can we separate the cultural myths of autism from the medical realities? How do individuals with autism experience the world differently, and how are their lives impacted by public perception of the condition? To address these questions, the course will be divided into three sections: First, students will learn key scientific theories of autism and how to critically evaluate them. Next, they will explore how cultural narratives of autism impact scientific and personal understanding. The course will conclude with a service learning experience, allowing students to experience first-hand the reality of individuals with autism.

Distributive: Dist:WCult:CI

COCO 16 - Audio-Vision: Film, Music, Sound
Instructor: Dong, K; Casas, C

This interdisciplinary course explores the intersection of Film, Music and Sound, navigating alternatively through the history of film and music from both perspectives, proposing a dual approach to film and music, imaging and sound. The course alternates topics of cinema, music and sound and requires extensive viewing and listening, weekly readings and class discussions. Topics ranging from sound experiments of the early avant-garde, through Visual Music, visual sound, audiovisual arts, experimental audiovisual installations and live arts practices will be studied along classic Hollywood, European and Asian films. Focusing on the connections between filmmakers, composers and artists, while tracing the evolution of audio-vision and its interconnections with music composition and sound innovation. The course structure is a double helix interconnected history of film and modern music from 1895 till today.

Cross-Listed as: MUS 17.03; FILM 47.06

Distributive: ART

COCO 17 - Electronics for Musicians
Instructor: Casey, M; Hartov, A

From recording performances to synthetisizing sounds, electronics permeate music making. This course introduces students to the technology behind music production. The course will cover analog electronics from microphone to speaker, digital electronics from the acquisition of sounds, their digital processing and their digital synthesis. Labs will situate electronics theory within the practice of music making. The course will conclude with students completing a project in the design of an electronic instrument of their choice.

Cross-Listed as: ENGS 017 MUS 14.03

Distributive: Dist:TLA
meaningful and engaging user experiences. Using techniques from storytelling, observational learning and visualization, students will learn how to create tools and present information in ways that maximize anticipation, engagement and the experience of delight that promotes learning and adoption.

**COCO 19 - Early Sparta and Corinth: A Comparative Approach to the Archaeohistory of Two Major Greek City-State**

This course centers on Sparta and Corinth, two city-states that, despite close geographic proximity, followed notably different developmental trajectories during the Archaic period. Sparta conquered much of the southern Peloponnese and became a militarized society with an economy based almost entirely on agriculture. Corinth’s territory was, compared to that of Sparta, minuscule, but it became a powerful and wealthy community through the foundation of numerous colonies and commerce. Sparta was famed for its army, Corinth for its navy. Spartans were known for the simplicity of their lifestyle and the architectural simplicity of their city, whereas Corinthians overtly enjoyed luxuries and erected some of the Greeks’ earliest large-scale stone temples. By comparing and contrasting Sparta and Corinth, we can develop a good sense of the Greek world during the Archaic period.

Cross-Listed as: CLST 11.03  
Distributive: Dist:ART; WCult:W


Instructor: Levin, Wegst

A hands-on course in which students working in groups build and assemble simple musical instruments with the aim of understanding how materials, technologies, craftsmanship, and cultural knowledge interact in the conception, design, and production of diverse instruments around the world. Merging the methodologies of engineering and materials science with the approaches of arts and humanities, the course explores from an interdisciplinary perspective the social meanings and powers ascribed to musical instruments, and the way that instruments have come to function as potent symbols of personal, cultural, and political identity.

Cross-Listed as: ENGS 17.04 MUS 17.04  
Distributive: Dist:ART; WCult:NW

**COCO 21 - What's in Your Shoebox? Unpacking Your Study Abroad Experience**

Cultural anthropologist Bruce La Brack uses the term "shoeboxing" to describe what is often done with study abroad experiences: the entire experience is put in a mental "shoebox," tucked away in the closet of the mind, taken out only rarely for periodic show-and-tell reminiscing. When we want to share stories about the time away or how we’ve changed, it can be hard to find folk who really want to listen. *What’s in Your Shoebox?* aims to rectify this. The class has two primary goals; 1) to provide you with the opportunity to revisit, unpack, and deeply reflect upon your recent study abroad experience, and 2) to identify creative, practical, and meaningful ways to apply this new knowledge and awareness.

Prerequisite: Study abroad 2017/18  
Distributive: Dist:SOC; WCult:CI

**COCO 22 - Philosophy and Neuroscience of Animal Minds**

Instructor: Roskies, van der Meer

This course will explore the nature of non-human non-linguistic animal thought, from both philosophical and empirical perspectives. Drawing on readings from philosophy and scientific journals, we will focus on three questions: (1) can nonhuman animals feel pain?; (2) can nonhuman animals exhibit “mental time travel”; and (3) can they represent the mental states of others? Emphasis will be on integrating insights from both fields to better understand the nature of thought.

Cross-Listed as: COGS 50.01

**COCO 23 - The Language-Music Connection**

Instructor: Levin, McPherson, Diabaté

Language and music are universal components of human experience, so integral that they are often considered part of what defines us as humans. While we treat them as distinct phenomena, the overlap between the two is immense, structurally, neurologically, and culturally. Such connections have long been recognized, but recent research from diverse fields like linguistics, (ethno)musicology, cognitive psychology, anthropology, and neuroscience continues to reveal just how intertwined the two faculties are. Drawing on this body of research and our respective specialties, we explore the language-music connection from the basic ingredients (pitch, timbre, rhythm, syntax), to cultural expression, to evolution and origins. Running through the course is a hands-on case study of a West African xylophone tradition where language and music are so intimately related that they cannot be separated. Students will be taught by a master of the tradition, Mamadou Diabaté, to feel for themselves what it means to speak through an instrument.

Cross-Listed as: LING 11.13 MUS 17.06  
Distributive: Dist:INT or ART; WCult:NW

**COCO 24 - Daniel Webster and the Dartmouth College Case**

Instructor: Bonner, Muirhead, Pease
Two hundred years ago, in 1819, Daniel Webster argued a case in front of the Supreme Court defending his alma mater, Dartmouth College, against the predations of the State of New Hampshire. The Court found in favor of Dartmouth, which preserved the College as a private entity. Perhaps more importantly, it also laid the legal foundation for the modern economy, where corporate firms are to some extent free of state control. This course aims for a comprehensive understanding of the Dartmouth College Case and Daniel Webster by integrating the perspectives of American studies, history, political theory, and law.

Cross-Listed as: ENGL 52.11 GOVT 60.18 HIST 90.06
Distributive: Dist:TMV

COCO 25 - Crisis and Strategy in American Foreign Policy

This course addresses the frameworks, patterns, and practice of America's strategic response to crisis. It will explore how institutions and policy traditions evolve in response to domestic and international challenges. It will examine some of the key political-military strategies that have been used by policy makers, including revisionism, hegemonic order building, engagement, retrenchment, and flexible integration. The course will also assess difficult challenges that will continue to confront America into the future in the Trump Administration and beyond, including relations with China, Russia, and the Middle East.

Cross-Listed as: PBPL 021
Distributive: Dist:INT or SOC

COCO 26 - So, You Want to Save the Planet, Be a Global Citizen? What's in Your Toolbox?

Traveling can be transformative. But transformative travel does not happen simply by virtue of hopping on a plane and appearing in another culture someplace on the globe. It happens through reflection and a critical awareness of self and other in the context of place, culture, and systems of power. The Toolbox will prepare you for mindful, ethical travel by equipping you with the research and reflection tools you'll need to maximize your global travel experiences.

Distributive: Dist:SOC; WCult:CI

COCO 27 - From Jupiter to Jesus: Christianity and the Transformation of the Roman World

Through an introduction of major works of western literature and art from the Classical and Early Christian world students will be able to consider modern Western heritage as an enduring product of Greco-Roman civilization. Inquiry will include an exploration of how humans' understanding of themselves and their role in the cosmos evolved over the period of the Roman Empire. Students will develop skills in analyzing written texts and works of art. They will be introduced to the intellectual tools used to investigate the transformation of societies impacted by exposure to new ideas and practices.

Cross-Listed as: CLST 01.01
Distributive: WCult:W

COCO 28 - History of Attention

The course will trace a broad outline of the social and cultural history of human attention. We will begin by establishing a firm foundational understanding of attention as a neuroscientific and cognitive phenomenon. We will then proceed to attention in preliterate societies (hunter-gatherers’ attention, attentional strategies in oral literary genres, such as the epic narrative); modern forms of attention in literature, music, pictorial art, and film; attention in the context of religious and spiritual practices; and finally, the current state of attention, including the social and political implications of the generalized ‘attention deficit disorder’ induced by the media and the internet.

Cross-Listed as: RUSS 38.12
Distributive: Dist:TMV

COCO 29 - Free Speech on Campus

Who is allowed to say what on college campuses? This course seeks to answer this question using the disciplines of government, public policy and law. We will look at the philosophical foundations of the right to free speech and why it is considered essential to liberty and democracy. We will also read judicial opinions defining the legal parameters of the first amendment, particularly as it pertains to “hate speech.” We will then turn to the specific case of the university, where values such as equality, inclusion, pedagogy and academic freedom may sometimes be in tension. The course will survey the history of attempts to regulate speech on campuses, including early 20th century disputes between university benefactors and professors, the hate speech codes of the 1980’s, as well as present controversies over free speech on college campuses. Students will discuss and write about contemporary conflicts using frameworks established in the disciplines of law and policy. Assignments will include written responses to readings, written analyses of contemporary problems, and legal memoranda for or against disciplinary action.

Distributive: Dist:TMV; WCult:W

COCO 30 - Democracy - A Challenged Concept

Three decades after the end of the cold war resurgent ultranationalism, parochial populism, white supremacy, anti-immigrant fervor, xenophobia, anti-Semitism and rabid misogyny undermine the stability and indefeasibility of European and American democracies. Commentators and scholars identify rampant capitalism, neoliberalism,
globalization, and the untamed proliferation of new media as causes for the vulnerability democracies. While some consider the establishment of right-wing movements and politicians as expressions of a temporary populist phase or even the advent of a post-democratic age, others refer to white-supremacist attacks or the recurrence of KKK and neo-Nazi groups worldwide as harbingers of a new fascism. This course will discuss the central terms and concepts such as (ililberal) democracy, republicanism, neoliberalism, populism, or fascism, as well as (counter-) movements on both sides such as the Tea Party, Alt-Right, the Brexit, as well as #MeToo, Occupy Wall Street, and Black Lives Matter through a variety of artifacts, documentaries, movies, speeches, literary texts, news articles and theoretical debates.

Distributive: Dist:TMV; WCult:W

**COCO 31 - Mind, Language, and Morality**

This course examines questions about the connection between mind, language, and normative domains such as morality, politics, and law. For example: how should we understand normative language that seems to be fundamentally about prescribing ways of acting, rather than about describing reality? Are moral judgments more a matter of emotion, or of belief? Can we reconcile a commitment to moral objectivity with our best scientific understanding of moral thought and talk? This course will engage such questions from a fundamentally interdisciplinary perspective, engaging with work from philosophy, cognitive science, linguistics, and psychology. In so doing, we will explore how empirical work can inform philosophical inquiry, and how philosophical inquiry can continue to guide ongoing research in the cognitive sciences. Students will be encouraged to work in interdisciplinary teams to create their own co-authored research.

Cross-Listed as: COGS 11.03 PHIL 50.35

Distributive: Dist:TMV

**COCO 32 - The Art of Adaptation and Storytelling**

This theoretical and practice-based course is a study of the conversion of oral, historical and fictional narratives into stage drama, cinema and literary texts. Special attention will be given to the cultural and political implications of cross-generic transformation, formulaic conventions and concepts of “genre,” “crossover appeal” and “adaptation.” Throughout the term, the intersections of race, culture and economics will be regularly questioned. Black cultural storytelling in various mediums and genres will be examined to serve as a point of entry into discussion of cultural worldview and storytelling in order to aid and encourage students to explore the theories, concepts and practice of adaptation from multiple, diverse vantage points and areas of interest. Building upon the adaptations they created in the first half of the quarter, students begin translating their stories visually in the “production” phase of the course. They assess how emotional information is translated in the original form and invent new ways of translating this content in their new visual format. Final projects can be interactive stage pieces, video installations or films.

Cross-Listed as: FILM 44.08

Distributive: Dist:ART; WCult:CI

**COCO 33 - Homelands and Diasporas: Russian Jews on Three Continents**

Drawing on a variety of disciplines, such as anthropology, history, sociology, political science, and cultural studies, and sources ranging from academic works to works of fiction and films, the course first explores the history and culture of Russian (pre-1917) and especially Soviet Jews (1917-1991)—a major and significant segment of the world Jewry—prior to the massive immigration of the 1970s-1990s. The rest of the course involves a comparison of the experience of Russian-speaking Jews in the three major countries they have immigrated to—Israel, US, and Germany—as well as those remaining in Russia today.

Cross-Listed as: JWST 05.01

Distributive: Dist:INT or SOC; WCult:CI

**COCO 34 - Psychoanalysis and Philosophy**

This class will stage an encounter between psychoanalysis and philosophy, introducing students to both fields by placing them side by side. Drawing on the complementary expertise of the two-person teaching team, weekly readings will pair at least two texts, including one from each primary field, to illuminate similarities and differences between psychoanalytic theory on the one hand and philosophical concepts on the other, noting where appropriate the mutual influence of the two fields. Because psychoanalysis is also a clinical practice, this interdisciplinary encounter raises the question of the practical dimension of philosophical thought, and we will ask about philosophy’s potential impact on lived experience, as well as whether the practice of psychoanalysis remains a valuable mode of treatment or an aid to everyday living. To help organize the broad questions at the intersections of psychoanalysis and philosophy, we will divide the class loosely into four thematic units, the unconscious, Oedipus, interpretation, and transference. Class will proceed mostly through guided discussion; assignments will include reading responses plus midterm and final papers, with opportunities for additional credit so that students might pursue their own interests within the course subject matters.

Cross-Listed as: ENGL 54.17

Distributive: Dist:TMV; WCult:W
**COCO 35 - Color in Art and Philosophy**

Western philosophers have long asked how we should square what the sciences tell us about ourselves as perceivers with what we seem to know about ourselves from the first person standpoint. Color and color perception are central examples of this problem. But most philosophers and scientists who work on color do so independently of another field in which color is both a problem and a material: painting. Painters make work out of color, and develop a subtle understanding of what color is by mixing and juxtaposing pigments. This course introduces students to the problems of color from both the painter’s and the philosopher’s perspective. Students will gain familiarity with philosophical theories of color as well as theories of color sourced in painting. They will develop the ability to work with paint and chromatic light so as to bring about different effects. And they will learn how materials such as paints and lights might be brought together into works. They will understand how a painter’s approach to color can inform the philosophical theories they learn, and, conversely, how the philosophy might influence how we think of painting.

**COCO 36 - Alaska: American Dreams and Native Realities**

Since the time United States "purchased" Alaska from Russia, this land has been seen by many as the "last frontier" - a place where tough and adventurous Euro-Americans could strike it rich or get away from the negative consequences of civilized living. Using anthropological and historical works as well as fiction, film and other media, the seminar explores the mythology surrounding the "land of the midnight sun." This myth of the "last frontier" - in its development-driven as well as conservationist versions -- is also contrasted with the ways Native Alaskans' have viewed and lived on their land.

**COCO 38 - Transforming the Energy System: Keeping the Lights on While Saving the Planet**

This course will explore how transitioning to renewable energy systems is a necessary leverage point for addressing human-caused climate change, with a specific focus on how energy for electricity and heat is generated and used in New England. Through the collaboration of instructors from the Environmental Studies Program, the Irving Institute for Energy and Society, the Department of Earth Sciences and the Sustainability Office, students will gain an interdisciplinary perspective on New England energy systems and human-caused climate change, including 1) the economic, policy, and regulatory management and distribution of energy, 2) the environmental and societal benefits and impacts of these systems on people and the environment, 3) a scientific understanding of fossil fuel resource formation, extraction, refining and use, and 4) climate change attribution and predictions of future human-caused climate change. The course will culminate in a discussion of Dartmouth’s own energy transition as well as regional- and national scale solutions for resolving the urgency of climate action with the current political, economic, and technological constraints governing the renewable energy transition.

Distributive: Dist:TLA

**Computer Science - Undergraduate**

Chair: Devin Balkcom


To view the Computer Science Undergraduate courses, click here. (p. 210)

To view the Computer Science Graduate requirements, click here. (p. 743)

To view the Computer Science Graduate courses, click here. (p. 747)

**Introductory Courses**

Students wishing to devote one course to the study of Computer Science may choose COSC 1 or COSC 2, depending on their background and interests. Students wishing to devote two or more courses to the study of Computer Science should begin with COSC 1 and COSC 10. Students wishing to take courses in Digital Arts should start by taking COSC 1 or COSC 2. ENGS 20 may substitute for COSC 1 in any program of study.

**Undergraduate Courses**

Computer Science undergraduate courses are numbered as follows:

1–19: Introductory and non-major courses.

20–29: Courses in Digital Arts.

30–49: Courses in theory and algorithms.
50–69: Courses in systems and hardware.
70–89: Courses in applied computer science.
90–99: Reading course and culminating experience courses.

Wherever COSC 1 is listed as a prerequisite, it may be replaced by ENGS 20, or placed out of through either the Computer Science Advanced Placement examination or a local placement examination.

Elective Courses

Many of the majors and minors involving Computer Science allow for one or more elective courses. In all cases, an elective course is any Computer Science course numbered from 30 to 89 that is not used to fulfill another requirement. Any lecture-based graduate course (as determined by the Department Undergraduate Advisor) in Computer Science (courses numbered above 100) may substitute for an elective course, as long as the graduate course is not cross-listed as an undergraduate course that is used to fulfill another requirement.

Major in Computer Science

The major in Computer Science is intended for those students who plan careers in Computer Science or in fields that make use of computing, for those who plan graduate study in Computer Science, and also for those who simply find Computer Science interesting. Undergraduates majoring in Computer Science will have opportunities to participate with faculty in activities outside formal coursework. These activities include assisting in courses, writing a thesis or doing a project under the guidance of a faculty member, and assisting a faculty member in research or in a programming project.

To fulfill the major in Computer Science, a student must complete the courses prerequisite to the major and satisfy the requirements of the major. For additional requirements for the Honors Program see the section ‘The Honors Program in Computer Science’ below.

Requirements for the Computer Science Major

Prerequisite courses: COSC 1 or ENGS 20; COSC 10.

Requirements: A student who wishes to major in Computer Science must obtain approval of her or his program of study from the Departmental Undergraduate Advisor. To complete the major, it is necessary to pass at least eleven courses in addition to passing the two prerequisite courses. Among these eleven courses must be the following:

1. Two Computer Science courses numbered 30 to 49;
2. Two Computer Science courses numbered 50 to 69;
3. Two Computer Science courses numbered 70 to 89;
4. Three additional courses, of which two are electives (see ‘Elective Courses’ above) and the third is an elective, or COSC 94, or a Mathematics course numbered 20 or greater that is not a prerequisite to the Mathematics major and is not a seminar or a reading course.
5. Computer Science culminating experience: either two consecutive terms of COSC 98, or two terms of COSC 99 (Thesis Research). A written thesis is required for thesis research, the Honors program, or the High Honors program.

Minors in Computer Science

The Computer Science minor is available to all students who are not majoring in Computer Science and who do not have a modified major with Computer Science. The Digital Arts minor is available to all students, including those majoring in Computer Science. For each minor, the prerequisites and required courses are listed below.

I. Computer Science

Prerequisites: COSC 1 or ENGS 20; COSC 10.

Courses: Any five elective courses (see ‘Elective Courses’ above) drawn from at least two of the following three sets of courses: COSC 30 to COSC 49; COSC 50 to COSC 69; COSC 70 to COSC 89.

II. Digital Arts

Prerequisites: COSC 1, COSC 2, or ENGS 20.

Courses:

1. Students must take COSC 22.
2. Any two of the following courses: COSC 23.01, COSC 24, COSC 25.
3. Two other courses, at most one of which is COSC, from the following list of approved additional courses for the Digital Arts Minor:

   FILM 30, FILM 31, FILM 32, FILM 35, FILM 36, FILM 38, FILM 39, FILM 51, MUS 14, MUS 34, SART 15, SART 16, SART 20, SART 21, SART 22, SART 23, SART 25, SART 29, SART 30, SART 31, SART 65, SART 66, ENGS 12, ENGS 75, THEA 26, THEA 27, THEA 30, THEA 31, THEA 34, THEA 42, THEA 43, THEA 44, THEA 45, COSC 20, COSC 23.01, COSC 24, COSC 25.01, COSC 25.02, COSC 29, COSC 77, COSC 83. If students aren't counting them as one of the courses in Section 2 above, students can take COSC 23.01 or COSC 24 as one of the courses meeting this requirement.

Use of other courses towards the Digital Arts Minor requires the approval of the Director of the Digital Arts Minor.

The Honors Program in Computer Science

To be eligible for departmental Honors or High Honors, a student must:
1. Be either a Computer Science Major or a Modified Major with Computer Science as the primary part;
2. Have a GPA of at least 3.33 overall and in the major, at the time of graduation;
3. Have an average grade of at least B+ in COSC 98 or 99;
4. Complete a written thesis; and
5. Meet College requirements for Honors, presented in the Regulations section of this catalog.

The GPA in the major is determined as follows: course prerequisites to the major are not counted, COSC 98, 99 are not counted, but all other courses used as part of the major (which might include courses in other departments) are counted, as are all courses titled Computer Science or cross-listed with Computer Science.

The written thesis is typically completed as part of the requirements for COSC 99 (Thesis Research), but at the recommendation of the instructor for COSC 98, students doing work in COSC 98 with a substantial independent component may also complete a written thesis based on that work. The subject of the thesis is often motivated by the content of an advanced course of the student's major, though a variety of activities can lead to a thesis. Student suggestions for theses are welcome. A student interested in pursuing thesis research should consult with his or her prospective adviser and get their approval for the thesis advising arrangement, along with the approval of the Departmental Undergraduate Advisor before enrolling in COSC 99. Honors are awarded only if the work is of high quality and was done substantially independently. High Honors additionally requires presentation to a thesis committee of three Computer Science faculty members and the work should be deemed publishable or, if it is a project, useful. The recommendation of the thesis adviser to award Honors or High Honors must be ratified by a departmental vote.

**Modified Majors**

Many students have created modified majors with Computer Science as either the primary or the secondary part. Particularly common modified majors are with engineering, mathematics, or economics, but modified majors with philosophy, music, film studies, psychology, physics, geography, studio art, and many other subjects have been approved.

**Modified Major with Computer Science as the Primary Part**

A modified major with Computer Science as the primary part must satisfy the following requirements, and it must be approved by the Departmental Undergraduate Advisor to ensure a coherent major.

Prerequisites: COSC 1 or ENGS 20; COSC 10.

Requirements: Along with at least four modifying courses, as approved by the Departmental Undergraduate Advisor, the requirements are as follows:
1. Two Computer Science course numbered 30 to 49;
2. Two Computer Science course numbered 50 to 69;
3. Two Computer Science course numbered 70 to 89;
4. Computer Science culminating experience: either two consecutive terms of COSC 98, or two terms of COSC 99 (Thesis Research). A written thesis is required for thesis research, the Honors program, or the High Honors program.

**Modified Major with Computer Science as the Secondary Part**

Prerequisites: COSC 1 or ENGS 20; COSC 10.

Requirements: Four electives (see ‘Elective Courses’ above) that complement the primary part of the modified major, subject to the approval of the Departmental Undergraduate Advisor.

**Modified Major with Digital Arts as the Secondary Part**

Prerequisites: COSC 1 or COSC 2.

Requirements:
1. Three Computer Science courses numbered 20–29;
2. One of the approved additional courses for the Digital Arts Minor in consultation with the DA Program Director. The additional course may not be from the department of the primary part of the modified major. (For example, a "Film Studies modified by Digital Arts" major may not use a Film Studies course to satisfy this requirement.)

**The Computer Science Major Modified with Engineering Sciences**

Prerequisites are COSC 1 or ENGS 20; COSC 10; MATH 3, MATH 8, MATH 13; and PHYS 13, PHYS 14.

Requirements:
1. One Computer Science course numbered 30 to 49;
2. One Computer Science course numbered 50 to 69, but not including COSC 56, which is identical to ENGS 31;
3. One Computer Science course numbered 70 to 89;
4. Three elective courses (see ‘Elective Courses’ above), not including COSC 56;
5. ENGS 22;
6. ENGS 31;
7. ENGS 62;
8. ENGS 26, ENGS 32, ENGS 61, or ENGS 91;
9. Computer Science culminating experience: either two consecutive terms of COSC 98, or two terms of COSC 99 (Thesis Research). A written thesis is required for thesis research, the Honors program, or the High Honors program.
The Computer Science Major Modified with Digital Arts

Prerequisites: COSC 1 or ENGS 20, and COSC 10.

Requirements:
1. Two Computer Science courses, either both from the range COSC 30 to 49 or both from the range COSC 50 to 69;
2. COSC 22;
3. COSC 24;
4. COSC 27 (With approval of the Director of the Digital Arts Minor, another course between COSC 20 and COSC 29 may substitute);
5. COSC 70;
6. Computer Science Breadth: Two additional computer science courses, one from the range COSC 30 to 69, and one from the range COSC 71 to 89;
7. Digital Arts elective: One Digital Arts elective outside the Computer Science department, listed above as additional courses under the description of the Digital Arts Minor;
8. Visual computing courses: Two from COSC 73, 77, 87, 89.18, 89.19, 89.22. With the approval of the Director of the Digital Arts Minor, other courses from COSC 70-89 related to visual computing may substitute;
9. Computer Science culminating experience: either two consecutive terms of COSC 98, or two terms of COSC 99 (Thesis Research). A written thesis is required for thesis research, the Honors program, or the High Honors program.

COSC 2 - Programming for Interactive Audio-Visual Arts

Instructor: Casey (Spring)

This course presents topics related to interactive visual art generated on a computer. Although it briefly covers computer-generated media art, the course focuses on the programming skills required for creating interactive works. Rather than using commercial software, students write their own programs, using the Processing language, to create interactive visuals and compositions. The course introduces fundamental concepts of how to represent and manipulate color, two-dimensional shapes, images, motion, and video. Coursework includes short programming assignments to practice the concepts introduced during lectures and projects to explore visual compositions. The course assumes no prior knowledge of programming. This course is not open to students who have passed COSC 1 or ENGS 20 or who have received credit for one of these courses via the Advanced Placement exam or the local placement exam.

Cross-Listed as: MUS 008
Distributive: Dist:TLA

COSC 10 - Problem Solving via Object-Oriented Programming

Instructor: Pierson (Fall), Pierson (Winter), Quattrini Li (Spring)

Motivated by problems that arise in a variety of disciplines, this course examines concepts and develops skills in solving computational problems. Topics covered include abstraction (how to hide details), modularity (how to decompose problems), data structures (how to efficiently organize data), and algorithms (procedures for solving problems). Laboratory assignments are implemented using object-oriented programming techniques.

Prerequisite: COSC 1 or ENGS 20 or placement through AP or local placement.
Distributive: Dist:TLA

COSC 16 - Introduction to Computational Neuroscience

Instructor: Granger

Your brain is composed of low-precision, slow, sparsely-connected computing elements, yet it outperforms any extant computer on tasks ranging from perception to planning. Computational Neuroscience has as its twin goals the scientific understanding of how brains compute thought, and the engineering capability to reconstruct the identified computations. Topics in the class included anatomical circuit design, physiological operating rules, evolutionary derivation, mathematical analyses, and
emergent behavior, as well as development of applications from robotics to medicine.

**COSC 20 - Motion Study: Using Motion Analysis for Science, Art and Medicine**

Motion Capture is the process of recording movement in physical space and transforming that information into a digital form that can be analyzed and adapted. Recent technological advances have increased the use of motion capture in movies, cartoon animation, and scientific applications. In this class, students will learn the foundations of this new field from basic anatomical principles of motion to how motions express a variety of human qualities (e.g., status, emotion). Students will work with a motion capture system to record and analyze their own movement to gain a hands-on understanding of how motion capture can enhance art and science.

Distributive: Dist:TAS

**COSC 21 - Foundations of Digital Design**

Instructor: Mahoney

This projects-based course will familiarize students with the fundamentals of digital design, including layout, typography, composition, color theory, and process. Foundational concepts and the universal principles of design will be explored through extensive analyses and a series of design projects. No previous art or technical experience is required. Work is evaluated on a set of technical and aesthetic criteria and class participation. Plan to meet during every X-Hour.

Distributive: Dist:ART

**COSC 22 - 3D Digital Modeling**

Instructor: Loeb

This projects-based lab course teaches the principles and practices of 3D modeling. Anyone with an interest in learning how models and environments in film, games, and VR applications are made, this course is for you. We focus on modeling, shading, textures, lighting, and rendering, along with some dynamics, special effects, and animation. Students create environments and a fully rigged character model while learning their way around a state-of-the-art 3D animation program. Work will be evaluated on a set of technical and aesthetic criteria. Assignments are given weekly. Plan to meet every X-Hour. No prior experience, coding or drawing skills needed. COSC 22 and COSC 24 can be taken in any order.

Distributive: Dist:TLA

**COSC 23.01 - Augmented and Virtual Reality Design**

Instructor: Mahoney

This hands-on projects-based course exposes students to the aesthetic, technical, and societal issues surrounding the emerging frontiers of digitally mediated realities. Students learn the fundamentals of augmented and virtual reality design and are introduced to interactive development for VR/AR. COSC 23.01 and COSC 63.01 have class together and work together on teams. Designers in this course create assets and design the UI/UX while developers build interactive digital tools, games, and visualizations. This course is not open to students who have received credit for COSC 29.22 or COSC 89.22.

Prerequisite: COSC 22

Distributive: Dist:TAS

**COSC 24 - Computer Animation: The State of the Art**

Instructor: Hannaway

This hands-on course focuses on state-of-the-art computer animation, presenting techniques and principles of traditional animation and how they apply to 3D computer animation, motion capture, and dynamic simulations. Facial and full-body animation are covered through projects, readings, and presentations. Students will complete weekly assignments and create short animation of their choosing. Students are given models and add weight, force, timing, and spacing to bring the models to life and simulate real-world physics. No prior experience needed. COSC 22 and COSC 24 can be taken in any order.

Distributive: Dist:ART

**COSC 25.01 - Intro to UI/UX Design I**

Instructor: Loeb

COSC 25.01 is a hands-on projects-based course that teaches the concepts, principles, and practice of User Interface (UI) and User Experience (UX) Design. It is designed for students with an interest in any form of design, although we focus on the UI/UX of digital tools (e.g., mobile, web, tablets). No previous experience or coding skills needed. Grading is based on weekly assignments, reflections, readings, and in-class exercises that build on each other and are intended to teach the foundational skills and thinking of UI/UX design. This team-based course requires a significant amount of time outside class. Students are encouraged (but not required) to take ENGS 12 prior to taking this course.

Some students will go on to take COSC 25.02, an Independent Study course that allows students to put the skills learned in COSC 25.01 into practice as a designer in the DALI Lab or through work on another project.

Distributive: Dist:ART
**COSC 25.02 - Intro to UI/UX Design II**  
Instructor: Loeb  
This Independent Study course offers students who have taken COSC 25.01 a chance to put what they learned in the classroom into practice. Students might work as a designer in the DALI Lab or on another project. In addition to completing a project as a designer, students design and build an online portfolio.  
Prerequisite: COSC 25.01 and Instructor Permission is required.  
Distributive: Dist:ART  

**COSC 27 - Projects in Digital Arts**  
Instructor: Mahoney  
This is the culminating course for the Digital Arts Minor. Students complete projects in digital arts, including: computer animations; games, VR/AR applications, interactive digital installations and media. Students work in small teams to complete work of a high production quality or work that incorporates innovations in technology. Grades are based on aesthetic and technical criteria along with teamwork and adherence to weekly milestones.  
Prerequisite: COSC 22 and either COSC 24 or COSC 23.01  
Distributive: Dist:ART  

**COSC 28 - Advanced Projects in Digital Arts**  
Instructor: Loeb  
This independent study course is for students who have completed all the courses in the Digital Arts minor and want to continue working on projects in digital arts or for students who want to stretch their skills in a new way. Projects may include computer animations, interactive digital arts, installations, or research projects. Students work alone or in teams. This course may be taken twice.  
Prerequisite: COSC 27 and permission of the instructor is required.  

**COSC 29 - Topics in Digital Arts**  
This course studies an advanced topic in Digital Arts that is not covered in the regular curriculum. Students may take this course multiple times, subject to the restriction that the topics are distinct.  
Prerequisite: Vary according to the topic. Consult with the instructor.  

**COSC 29.04 - Impact Design**  
Instructor: Loeb/Wheatley  
This innovative, team-based, project course is about impact--what it is, how you experience it, how you create it, how you measure it. We focus on designing products and experiences for community partners as part of the Social Impact Practicum program. Rather than looking at how we can solve a problem, we look at how we can create delight for users. Students will learn how to combine core principles from human psychology with the tools of design to create products and user experiences that promote engagement, adoption, and learning. Past community partners have included the Hartford Autism Regional Program (HARP) and the Aging Resource Center.  
Cross-Listed as: PSYC 015  
Distributive: Dist:TMV  

**COSC 29.05 - Digital Fabrication & Rapid Prototyping**  
Artists, designers, creators, and makers increasingly use digital fabrication methods in both two and three dimensions as a means of designing, rapid prototyping and manufacturing. This class uses digital fabrication tools in a studio setting. Students learn digital fabrication through a series of 2D and 3D design projects and through critical discussions of the aesthetic, sociological and practical implications of integrating digital tools and materiality into the design and build process.  
Students will have hands-on training in the process of creating and converting computer generated drawings and models into physical objects through the use of 2D and 3D scanners, laser-cutters, wire benders, cnc routers and 3D printers. No previous experience needed.  

**COSC 30 - Discrete Mathematics in Computer Science**  
Instructor: Jayanti (Fall), Chang (Winter and Spring)  
This course develops the mathematical foundations of computer science that are not calculus-based. It covers basic set theory, logic, mathematical proof techniques, and a selection of discrete mathematics topics such as combinatorics (counting), discrete probability, number theory, and graph theory. The mathematics is frequently motivated using computer science applications.  
Prerequisite: Math 3 and COSC 10; or Math 3, Instructor Permission, and either COSC 1 or ENGS 20.  
Cross-Listed as: ENGS 066  
Distributive: Dist:QDS  

**COSC 31 - Algorithms**  
Instructor: Jayanti (Winter), Chakrabarty (Spring)  
A survey of fundamental algorithms and algorithmic techniques, including divide-and-conquer algorithms, dynamic programming, randomized algorithms, greedy algorithms, and graph algorithms. Presentation, implementation and formal analysis, including space/time complexity and proofs of correctness, are all emphasized.
Prerequisite: COSC 10 and COSC 30. Students who have not taken COSC 30 but have a strong mathematical background may take COSC 31 with the instructor's permission.

Distributive: Dist:QDS

**COSC 32 - Advanced Algorithms**

This course follows up on our basic undergraduate-level algorithms course, covering a number of advanced topics and ideas in algorithm design and analysis. You will learn about the use of advanced data structures, amortized analysis, randomization, linear programming, and approximation. The focus will be on methodology and broadly-applicable fundamental principles, rather than specific problem domains.

Prerequisite: An undergraduate-level course in Algorithms (such as COSC 31) and strong mathematics background.

Distributive: Dist:QDS

**COSC 35 - Data Stream Algorithms**

This course studies algorithms that process massive amounts of data; so massive that they will not fit in a computer’s storage. The course will cover a wide variety of techniques for summarizing such large amounts of data into succinct “sketches” that nevertheless retain important and useful information. The course starts from the basics, assuming only a basic knowledge of algorithms, and builds up to advanced techniques from recent research. The necessary mathematical tools are developed within the course.

Prerequisite: COSC 31 or permission of the instructor.

**COSC 36 - Approximation Algorithms**

Instructor: Chakrabarty

Many problems arising in computer science are NP-hard and therefore we do not expect efficient algorithms for solving them exactly. This has led to the study of approximation algorithms where algorithms are supposed to run fast but can return approximate solutions. This course provides a broad overview of the main techniques involved in designing and analyzing such algorithms. It also explores connections between algorithms and mathematical fields such as algebra, geometry, and probability.

Prerequisite: A first course on algorithms and mathematical maturity to read and write proofs will be assumed. Prerequisite Courses: COSC 31, COSC 30.

Distributive: Dist:QDS

**COSC 39 - Theory of Computation**

Instructor: Chakrabarti

This course serves as an introduction to formal models of languages and computation. Topics covered include finite automata, regular languages, context-free languages, pushdown automata, Turing machines, computability, and NP-completeness.

Prerequisite: COSC 30 and/or COSC 31. Students who have not taken COSC 30 and/or 31, but have a strong mathematical background, may take COSC 39 with the instructor's permission.

Distributive: Dist:QDS

**COSC 40 - Computational Complexity**

Instructor: Chakrabarti

This course covers the basics of computational complexity, whose broad goal is to classify computational problems into classes based on their inherent resource requirements. Five key computational resources are studied: time, space, nondeterminism, randomness, and interaction. Key concepts studied include reductions, the polynomial hierarchy, Boolean circuits, pseudorandomness and one-way functions, probabilistic proof systems, and hardness of approximation.

Prerequisite: COSC 39 or equivalent. Students need to be familiar with the formalism of the Turing Machine and with the notion of NP-completeness.

**COSC 49 - Topics in Algorithms and Complexity**

This course studies an advanced topic in algorithms and complexity that is not covered in the regular curriculum. Students may take courses under this rubric multiple times, subject to the restriction that the topics are distinct. The subject material under this rubric differs from course to course depending on the instructor. Please refer to individual courses for detailed instruction.

Prerequisite: Vary according to the topic. Consult with the instructor.

Distributive: Dist:QDS

**COSC 49.04 - Concurrent Algorithms**

We consider problems where multiple processes have to coordinate their activities to accomplish a task. For an example, suppose that there are many sensing agents on an aircraft and each agent, based on its reading of the environment, has a recommendation on whether the aircraft should keep straight, turn left, or turn right. Since different agents can have different recommendations, we would want a protocol by which they can arrive at an "agreement" on whether the plane should go left, right, or straight. How hard is it to design such a protocol? It turns out that if you want the protocol to be fault-tolerant, i.e., the protocol works correctly even if one of the agents stops communicating, it is impossible to design a correct protocol (under certain reasonable assumptions about the system).
In the course, we will look at several fascinating coordination problems and solve them for several models of distributed computing: shared-memory versus message passing, synchronous versus asynchronous, fault-free versus fault-tolerant. We design algorithms, and prove lower bounds or even impossibility results.

There will be weekly homework and a final exam.

Prerequisite: COSC 31 (Undergraduate Algorithms) or equivalent, and an interest in algorithms/theory.

COSC 49.06 - Approximation Algorithms

Many problems arising in computer science are NP-hard and therefore we do not expect polynomial time algorithms solving them exactly. This has led to the study of approximation algorithms where one relaxes the goal to return approximate solutions. Over the past three decades, a beautiful theory of approximation algorithms has emerged. This course will provide a broad overview of the main techniques and will often deep dive into the state-of-the-art.

Prerequisite: COSC 31

Distributive: Dist:TAS

COSC 49.07 - 21st Century Algorithms

The new century has brought us a new class of computational problems and paradigms, and to tackle them a suite of new algorithmic ideas have emerged. In this course, we will look at a collection of such ideas which are fundamental and yet not covered in a first course in undergraduate algorithms. (For instance, in fact, almost all algorithms covered in CS 31 are from last century). A rough set of problems and ideas are: random sampling algorithms, sketching algorithms, streaming algorithms, clustering algorithms, learning algorithms, etc, etc.

Prerequisite: COSC 31

Distributive: Dist:QDS

COSC 49.08 - Information Theory in Computer Science

This course introduces students to information theory, a mathematical formalism for quantifying and reasoning about communication. While traditionally a part of electrical engineering, it has found several powerful applications in the theory of algorithms and complexity and adjacent fields such as combinatorics and game theory. The first third of the course will teach students the basics of information theory (Shannon entropy, mutual information, Kullback-Liebler divergence). The rest of the course will sample topics from error correcting codes, communication complexity, data structures, and optimization, in each case highlighting applications of information theory.

Prerequisite: COSC 31 or COSC 30 plus permission of the instructor (based on strong mathematical background)

COSC 49.09 - Introduction to Computational Topology

Instructor: Chang

Topology is the art of studying shapes without precise measurements. It is not surprising then that topology has found many applications in computer science, both in theoretical and applied research including algorithms and complexity theory, data analysis, robotics, computer graphics, etc., where often the input data is geometrically constrained, or noisy due to measurement errors. The course serves as an introduction to the rapidly growing area(s) of computational topology.

Prerequisite: COSC 30 is required. COSC 31 is recommended.

COSC 49.10 - Randomized Algorithms

Randomness is one of the key resources in algorithm design. Many problems have faster algorithms if randomization is allowed, and indeed, for certain problems randomness is essential. The course will introduce the probability basics, the fundamental tools, and provide multiple applications in machine learning, big data, optimization, etc.

Prerequisite: A first course on algorithms and mathematical maturity to read and write proofs will be assumed. Prerequisite Courses: COSC 31, COSC 30.

Distributive: Dist:TAS

COSC 50 - Software Design and Implementation

Instructor: Palmer, Prioleau (Fall), TBD (Winter), Zhou (Spring)

Techniques for building large, reliable, maintainable, and understandable software systems. Topics include UNIX tools and filters, programming in C, software testing, debugging, and teamwork in software development. Concepts are reinforced through a small number of medium-scale programs and one team programming project.

Prerequisite: COSC 10

Cross-Listed as: ENGS 050

Distributive: Dist:TLA

COSC 51 - Computer Architecture

Instructor: Smith

The architecture and organization of a simple computer system is studied. Topics covered include how information is represented in memory, machine-language instructions and how they can be implemented at the digital logic level
and microcode level, assembly language programming, and input/output operations. Speedup techniques, such as pipelining and caching, are also covered.

Prerequisite: COSC 1, ENGS 20, or placement through the Advanced Placement exam or the local placement exam.

Distributive: Dist:TAS

COSC 52 - Full-Stack Web Development
Instructor: Tregubov

The Web is a powerful delivery tool for complex real-time applications. This is an introduction to full stack Web application development — the approach of integrating numerous techniques and technologies to build modern Web applications. Topics include: static pages, Internet protocols, layout, markup, event-driven asynchronous programming, deployment, security, scalability, and user experience. Projects include building real-time Web applications with front-end UIs and server-side APIs.

Prerequisite: COSC 10

Distributive: Dist:TAS

COSC 55 - Security and Privacy
Instructor: Mehnaz

The migration of important social processes to distributed, electronic systems raises critical security and privacy issues. Precisely defining security and privacy is difficult; designing and deploying systems that provide these properties is even harder. This course examines what security and privacy mean in these settings, the techniques that might help, and how to use these techniques effectively. Our intention is to equip computer professionals with the breadth of knowledge necessary to navigate this emerging area.

Prerequisite: COSC 50 or instructor permission. COSC 51 and COSC 30 are recommended.

Distributive: Dist:TAS

COSC 56 - Digital Electronics
Instructor: Joosten

This course teaches classical switching theory including Boolean algebra, logic minimization, algorithmic state machine abstractions, and synchronous system design. This theory is then applied to digital electronic design. Techniques of logic implementation, from Small Scale Integration (SSI) through Application-Specific Integrated Circuits (ASICs), are encountered. There are weekly laboratory exercises for the first part of the course followed by a digital design project in which the student designs and builds a large system of his or her choice. In the process, Computer-Aided Design (CAD) and construction techniques for digital systems are learned.

Prerequisite: ENGS 20 or COSC 1 and COSC 10

Cross-Listed as: ENGS 031

Distributive: Dist:TLA

COSC 57 - Compilers
Instructor: Kommineni

Techniques for automatic translation of programming languages are discussed. The course includes a brief survey of various techniques and formalisms that can be used for describing the syntax and semantics of programming languages, for describing abstract and concrete machine architectures, and for describing program translation and transformation. This course includes a project to construct a compiler that will translate a program written in a high-level language into machine code for a conventional-architecture machine.

Prerequisite: COSC 50. COSC 51 is recommended.

Distributive: Dist:TAS

COSC 58 - Operating Systems
Instructor: Smith

This course studies how computer operating systems allocate resources and create virtual machines for the execution of user jobs. Topics covered include storage management, scheduling, concurrent processing, shared access to files, synchronization, and data protection. Both abstract models and actual examples of operating systems will be studied.

Prerequisite: COSC 50 and COSC 51

Distributive: Dist:TAS

COSC 59 - Principles of Programming Languages
Instructor: Joosten

This course provides a study of the principles of programming languages. The course will focus on the similarities and differences among imperative, functional, logical, and object-oriented programming languages. Topics include formal definitions of languages and tools for automatic program translation, control structures, parameter passing, scoping, types, and functions as first-class objects. For each language category, implementation issues will be discussed, and program development strategies illustrated through programming exercises.

Prerequisite: COSC 10, COSC 30 and COSC 51 are recommended.

Distributive: Dist:TAS

COSC 60 - Computer Networks
Instructor: Joosten

This course focuses on the communications protocols used in computer networks: their functionality, specification, verification, implementation, and performance; and how protocols work together to provide more complex services. Aspects of network architectures are also considered.
Laboratory projects are an integral part of the course in which networking concepts are explored in depth.

Prerequisite: COSC 30 and COSC 50; COSC 51 is recommended

Distributive: Dist:TAS

**COSC 61 - Database Systems**

Instructor: Pierson

This course studies the management of large bodies of data or information. This includes schemes for the representation, manipulation, and storage of complex information structures as well as algorithms for processing these structures efficiently and for retrieving the information they contain. This course will teach the student techniques for storage allocation and deallocation, retrieval (query formulation), and manipulation of large amounts of heterogeneous data. Students are expected to program and become involved in a project in which they study important aspects of a database system: ways to organize a distributed database shared by several computers; transactions that are processed locally and globally; robustness guarantees of the stored data against failure; security and data integrity guarantees from unauthorized access; privacy; object-oriented schemes for multimedia data; indexing, hashing, concurrency control, data mining, data warehousing, mobile databases and storage file structures.

Prerequisite: COSC 50 or equivalent, as approved by instructor.

Distributive: Dist:TAS

**COSC 62 - Applied Cryptography**

Cryptography is the fundamental building block for establishing and maintaining trustworthy connections and communications in the Internet; it's the first line of defense for keeping adversaries from spying on credit card numbers being sent to Amazon or on whistleblower reports sent to journalists. This course will examine what's in this toolkit: symmetric ciphers, public-key cryptography, hash functions, pseudorandomness. To enable the well-cultured computer scientist to understand how these tools are used in the real world, this course will cover these topics from multiple perspectives: theoretical foundations, use in practical computing, implementation and management challenges, weaknesses and attacks, censorship circumvention, public policy questions, and prospects for the future.

Prerequisite: COSC 30, COSC 50. COSC 51 and COSC 55 are recommended.

Distributive: Dist:TAS

**COSC 63 - Programming Parallel Systems**

Multi-core processors are now ubiquitous in most personal computers. These are the fundamental computer-engineering building blocks for high-performance servers, blade farms, and cloud computing. In order to utilize these devices in large systems they must be interconnected through networking and collectively programmed. This hands-on system-engineering course offers students the opportunity to explore problem-solving techniques on a high-performance multi-computer containing quad-core processors. The course involves weekly programming laboratories that teach POSIX thread, UDP and TCP network, and MPI style programming techniques. These techniques are explored in the context of scalable problem solving methods applied to typical problems in science and engineering ranging from client-server sensing and data repositories, to numerical methods, gaming and decision support. All laboratories will be conducted in the C programming language and proficiency in C is required. Enrollment is limited to 30 students.

Prerequisite: ENGS 20 or COSC 50.

Cross-Listed as: ENGS 067

Distributive: Dist:TAS

**COSC 63.01 - Augmented and Virtual Reality Development**

Instructor: Mahoney

This hands-on projects-based course is for developers who have completed COSC 10. It covers the technical, aesthetic, and societal issues surrounding the emerging frontiers of digitally mediated realities. Students learn the fundamentals of augmented and virtual reality development, while working in small interdisciplinary teams with digital arts students who are concurrently enrolled in COSC 23.01. COSC 63.01 and COSC 23.01 have class together and work together on teams. Developers in this course build interactive digital tools, games, and visualizations, while designers create assets and the interface. This course will also address the sociological implications of the technology. This course is not open to students who have received credit for COSC 29.22 or COSC 89.22.

Prerequisite: COSC 10

Distributive: Dist:TAS

**COSC 65 - Smartphone Programming**

Instructor: Yang

This course teaches students how to design, implement, test, debug and publish smartphone applications. Topics include development environment, phone emulator, key programming paradigms, UI design including views and activities, data persistence, messaging and networking, embedded sensors, location based services (e.g., Google
Maps), cloud programming, and publishing applications. Concepts are reinforced through a set of weekly programming assignments and group projects.

Prerequisite: COSC 10
Cross-Listed as: ENGS 069
Distributive: Dist:TAS

**COSC 66 - Game Development Principles Applied In Educational/Serious Games**

Instructor: Tregubov

Digital games are a growing platform for education, entertainment, and visualization with a myriad of technological and theoretical challenges. This course explores the concepts and techniques involved in developing real-time 2D and 3D games, as well as the opportunities and constraints when applied to the field of serious games in areas such as education, healthcare, scientific visualization, emergency planning and response, government, and engineering. Topics include: 2d and 3d game engines, game ai, procedural generation, real-time rendering pipelines, game physics, shaders, game programming patterns, networked games, state synchronization, and game mechanics. Projects include building games from scratch such as an online multiplayer game with a server-side component.

Prerequisite: COSC 10 or permission of the Instructor
Distributive: Dist:TAS

**COSC 67 - Introduction to Human-Computer Interaction**

Instructor: Yang

This course provides the fundamentals of human-computer interaction, including human factors, usability, user-centered design, prototyping, and usability evaluation. Students will learn the skills and knowledge to identify users’ needs and limitations through observations and interviews. They will experience rapid prototyping and will learn common HCI evaluation techniques, such as qualitative and quantitative methods, to evaluate their designs and implementations. Additionally, students will be exposed to the state-of-the-art research within HCI.

Prerequisite: COSC 10
Distributive: Dist:TAS

**COSC 68 - Advanced Operating Systems**

This course covers advanced topics in operating systems, including issues such as the hardware/software interface, operating-system structure, CPU scheduling, concurrency, virtual memory, interprocess communication, file systems, protection, security, fault tolerance, and transaction processing. The course also considers many of these topics in the context of distributed systems.

Prerequisite: A grade of B+ or better in COSC 58/258, or passing an examination administered by the department to demonstrate competency in the material of COSC 58/258.
Distributive: Dist:TAS

**COSC 69 - Topics in Computer Systems**

Instructor: Zhou (Fall), Quattrini Li (Winter), Campbell (Spring)

This course studies an advanced topic in computer systems that is not covered in the regular curriculum. Students may take courses under this rubric multiple times, subject to the restriction that the topics are distinct. The subject material under this rubric differs from course to course depending on the instructor. Please refer to individual courses for detailed instruction.

Prerequisite: Vary according to the topic. Consult with the instructor.
Cross-Listed as: COSC 169

**COSC 69.08 - All Things Wireless**

This is a topics course about use and development of wireless devices.

Prerequisite: COSC 60.
Distributive: Dist:TAS

**COSC 69.11 - Mobile X**

Instructor: Zhou

Mobile X is an upper-level course on mobile computing and ubiquitous systems, covering a broad range of advanced and interdisciplinary topics in mobile systems, networking, and applications. All these topics focus on tackling unique challenges faced on bringing computation, networking, and applications to the mobile computing platform -- a platform that is constrained in form factor, energy, and computation power. Example topics include mobile communication and networking, mobile human-to-computer interaction (HCI), mobile learning/AI, mobile health, and mobile security.

Distributive: Dist:TAS

**COSC 69.13 - Multirobot Systems**

Multirobot Systems is a seminar-course that will explore why multirobot systems are important, the extra challenges that need to be addressed, and the current state of the art in deploying multiple robots.

Students will learn the computational aspects of multiagent and multirobot systems, including sensing, coordination, and communication, and will have the opportunity to develop and evaluate a behavior on a real multirobot system.

Distributive: Dist:TAS
COSC 69.14 - Functional Programming in Haskell
This course teaches a different approach to programming. In functional programming, we treat programs like values. The type of that value tells you what the program might do and restricts the possible buggy programs that don’t do what you want them to do. In Haskell, you direct the type system to help improve your productivity, and your code’s maintainability, by ensuring that certain bugs yield uncompileable code. Haskell programming is a recommended skill, regardless of whether you have a direct need for it. Programming in Haskell is not difficult, but has a steep learning curve when attempting to learn it on your own. Hence this course won’t be easy, but it will help you through the difficult part. We use the latest GHC compiler, which is the most commonly used Haskell compiler in industry.
Prerequisite: COSC 10. COSC 30 is recommended.

COSC 69.15 - Robotics Perception Systems
This seminar course focuses on the issues and approaches to process and fuse data from robotics perception systems to enable robot autonomy, e.g., self-driving cars. The course will be very hands-on: some preliminary assignments will immerse you in the robotics world and how to process the sensor data for situational awareness. Through selected papers taken from the literature, students will learn different aspects of robotics perception systems, including computer vision, simultaneous localization and mapping, and machine learning. In addition, students will learn how to critically analyze a paper and how to effectively communicate a research work, by writing a summary on each paper, and presenting and discussing papers in class. Towards the end, students will work in a team on a final project that involves the use of a mobile robot with an RGBD camera and LIDAR. The professor will draw from his experiences in robotic research to enrich the material with aspects of active research problems, such as robot exploration for search and rescue and environmental coral reef monitoring using underwater robots.
Prerequisite: COSC 70/70.01 (formerly COSC 11). COSC 50 is recommended.

COSC 70 - Foundations of Applied Computer Science
Instructor: Zhu (Fall), Jarosz (Winter), Zhu (Spring)
This course introduces core computational and mathematical techniques for data analysis and physical modeling, foundational to applications including computational biology, computer vision, graphics, machine learning, and robotics. The approaches covered include modeling and optimizing both linear and nonlinear systems, representing and computing with uncertainty, analyzing multi-dimensional data, and sampling from complex domains. The techniques are both grounded in mathematical principles and practically applied to problems from a broad range of areas. Not open to students who have received credit for COSC 70.01.
Prerequisite: MATH 3, COSC1 required, COSC 10 recommended
Distributive: Dist:QDS

COSC 71 - Numerical Methods in Computation
Instructor: Shepherd (Thayer)
A study and analysis of important numerical and computational methods for solving engineering and scientific problems. The course will include methods for solving linear and nonlinear equations, doing polynomial interpolation, evaluating integrals, solving ordinary differential equations, and determining eigenvalues and eigenvectors of matrices. The student will be required to write and run computer programs.
Prerequisite: COSC 1 and COSC 10, or ENGS 20; ENGS 22 or MATH 23, or equivalent.
Cross-Listed as: ENGS 091 MATH 026
Distributive: Dist:QDS

COSC 72 - Accelerated Computational Linguistics
Instructor: Coto-Solano (Linguistics)
The study of human language from a computational perspective. This accelerated course has programming background equivalent to that provided by COSC 1 as a prerequisite. This course will survey formal models for representing linguistic objects, and statistical approaches to learning from natural language data. We will pay attention to the use of computational techniques to understand the structure of language, as well as practical engineering applications like speech recognition and machine translation. Students will implement simple algorithms for several key tasks in language processing and learning.
Prerequisite: COSC 01
Cross-Listed as: LING 048
Distributive: Dist:TAS

COSC 73 - Computational Aspects of Digital Photography
Computational photography lies at the intersection of photography, computer vision, image processing, and computer graphics. At its essence, it is about leveraging the power of digital computation to overcome limitations of traditional photography. The course will cover the optics of cameras and sensors, how cameras form images, and how we can represent them digitally on a computer. We will focus on software techniques like image processing algorithms for photography, high-dynamic-range photography and tone mapping, and the math and algorithms behind popular image manipulation tools like Photoshop. Coursework will include taking some photos.
and implementing several algorithms to manipulate those photos in weekly programming assignments (in C ). We will also read, present and discuss recent research papers in the field. By the end of the term, students should have an understanding of the capabilities and limitations of photography today, and have sufficient background to implement new solutions to photography challenges.

Prerequisite: COSC 10 and COSC 70; COSC 50 is recommended or instructor permission.

Distributive: Dist:TAS

**COSC 74 - Machine Learning and Statistical Data Analysis**

Instructor: Subrahmanian, Vosoughi (Fall), Torresani (Winter), Subrahmanian, Vosoughi (Spring)

This course provides an introduction to statistical modeling and machine learning. Topics include learning theory, supervised and unsupervised machine learning, statistical inference and prediction, and data mining. Applications of these techniques to a wide variety of data sets will be described.

Prerequisite: COSC 1 or ENGS 20; COSC 70/70.1(formerly COSC 11), or MATH 22, or MATH 24.

Distributive: Dist:QDS

**COSC 75 - Introduction to Bioinformatics**

Bioinformatics is broadly defined as the study of molecular biological information, and this course introduces computational techniques for the analysis of biomolecular sequence, structure, and function. While the course is application-driven, it focuses on the underlying algorithms and information processing techniques, employing approaches from search, optimization, pattern recognition, and so forth. The course is hands-on: programming lab assignments provide the opportunity to implement and study key algorithms.

Prerequisite: COSC 10; COSC 70/70.01 (formerly COSC 11), or MATH 22, or MATH 24. COSC 30 is recommended.

Distributive: Dist:TLA

**COSC 76 - Artificial Intelligence**

Instructor: Quattrini Li (Fall), Subrahmanian (Spring)

An introduction to the field of Artificial Intelligence. Topics include games, robotics, motion planning, knowledge representation, logic and theorem proving, probabilistic reasoning over time, understanding of natural languages, and discussions of human intelligence.

Prerequisite: COSC 10. COSC 30 is recommended.

Distributive: Dist:TAS

**COSC 77 - Computer Graphics**

Instructor: Jarosz

This course provides a broad introduction to the mathematical and programmatic foundations of computer graphics, including modeling, rendering (drawing), and animating three-dimensional scenes. Topics include digital image representation, two- and three-dimensional shape representations (e.g. parametric curves and surfaces, meshes, subdivision surfaces), geometrical transformations (e.g. rotations, scales, translations, and perspective projection), rigging and skinning, the rasterization pipeline, ray tracing, illumination and shading models, texturing, and light & visual perception. Coursework typically includes a mix of programming assignments, quizzes/hand-written work, assigned readings, and a final project. Knowledge of basic linear algebra and programming skills are assumed.

Prerequisite: COSC 50; COSC 70/70.01 (formerly COSC 11) or MATH 22/24; or instructor permission if the above two prereqs not fulfilled.

Distributive: Dist:TAS

**COSC 78 - Deep Learning**

This course provides an introduction to deep learning, a methodology to train hierarchical machine learning models using large collections of examples. Deep learning is a special form of machine learning where rich data representations are simultaneously learned with the model, thus eliminating the need to engineer features by hand.

The course begins with a comprehensive study of feedforward neural networks, which are the model of choice for most hierarchical representation learning algorithms. Other models covered in this course include convolutional neural networks, restricted Boltzmann machines, autoencoders, sparse codes. Several lectures are devoted to discuss strategies to improve the bias-variance tradeoff, such as regularization, data augmentation, pre-training, dropout, and multi-task learning. The course also studies modern applications of deep learning, such as image categorization, speech recognition, and natural language processing.

Prerequisite: COSC 74

Distributive: Dist:TAS

**COSC 81 - Principles of Robot Design and Programming**

Instructor: Quattrini Li

This course is a hands-on introduction to robotics. Students will build robots, program robots, and learn to mathematically model and analyze manipulation and locomotion tasks. Topics include kinematics and dynamics of rigid-body motion, motion planning, control, mechanics
of friction and contact, grasping, sensing, uncertainty in robotics, and applications of robots.

Prerequisite: COSC 70/70.01 (formerly COSC 11), or COSC 01 and Math 22/24. COSC 10 and COSC 50 are recommended.

Distributive: Dist: TLA

COSC 83 - Computer Vision

This course provides an introduction to computer vision, the art of teaching computers to see. Topics include image formation, feature detection, segmentation, 3D reconstruction from multiple views, motion estimation, and object recognition.

Prerequisite: COSC 1 or ENGS 20; COSC 70/70.01 (formerly COSC 11), or MATH 22, or MATH 24.

Distributive: Dist: TAS

COSC 84 - Mathematical Optimization and Modeling

Planning, scheduling, and design problems in large organizations, economic or engineering systems can often be modeled mathematically using variables satisfying linear equations and inequalities. This course explores these models: the types of problems that can be handled, their formulation, solution, and interpretation. It introduces the theory underlying linear programming, a natural extension of linear algebra that captures these types of models, and also studies the process of modeling concrete problems, the algorithms to solve these models, and the solution and analysis of these problems using a modeling language. It also discusses the relation of linear programming to the more complex frameworks of nonlinear programming and integer programming. These paradigms broaden linear programming to respectively allow for nonlinear equations and inequalities, or for variables to be constrained to be integers.

Prerequisite: COSC 1 or ENGS 20; COSC 70/70.01 (formerly COSC 11), or MATH 22 or MATH 24; or permission of the instructor.

Distributive: Dist: TAS

COSC 86 - Computational Structural Biology

Computational methods are helping provide an understanding of how the molecules of life function through their atomic-level structures, and how those structures and functions can be applied and controlled. This course will introduce the wide range of complex and fascinating challenges and approaches in computational structural biology, and will give hands-on experience applying and implementing some important methods.

Prerequisite: COSC 10 or permission of the instructor.

Distributive: Dist: TAS

COSC 87 - Rendering Algorithms

Instructor: Jarosz

This class is intended for students interested in obtaining a deep technical understanding of the physically based rendering techniques used to produce photorealistic images in animated films, visual effects, or architectural and product visualizations.

Students will learn how light behaves and interacts with objects in the real world and how to translate the underlying math and physics into practical algorithms for creating photorealistic images. The course will provide a detailed treatment of the industry-standard Monte Carlo methods for light transport simulation, such as path tracing, bidirectional path tracing, and photon mapping.

Each major topic will also be accompanied by a programming assignment where students implement these algorithms within their own software framework to obtain practical experience. Additional coursework includes quizzes/handwritten exercises and assigned readings. At the end of the term, each student will work on a self-directed final project that extends their rendering software with additional features of their own choosing with the goal of creating a photorealistic image.

Prerequisite: COSC 70/70.01 (formerly COSC 11) and COSC 50; or Instructor's Permission.

Distributive: Dist: TAS

COSC 89 - Topics in Applied Computer Science

This course studies an advanced topic in applied Computer Science that is not covered in the regular curriculum. Students may take courses under this rubric multiple times, subject to the restriction that the topics are distinct. The subject material under this rubric differs from course to course depending on the instructor. Please refer to individual courses for detailed instruction.

Prerequisite: Vary according to the topic. Consult with the instructor.

Cross-Listed as: COSC 189

COSC 89.11 - Cognitive Computing with Watson

Instructor: Palmer

Building a computer program capable of answering questions with human-level competence has been one of the grand challenges of Artificial Intelligence. IBM’s Watson system has achieved remarkable results. This class will explore the AI methods used in Watson. Topics include: natural language processing, knowledge representation, automated reasoning, machine learning, and information retrieval. Students will work in teams to develop applications that use Watson as a Cloud Service in some novel way. This class will be one of few in the world
to use Watson, helping to shape the future of “Cognitive Computing.”

The class will focus on projects and group work that culminates in building a novel application for question answering. Student teams will benefit from drawing on experience from various other classes, including data mining, information retrieval, natural-language processing, mobile computing and entrepreneurship.

Understanding the strengths and limitations of current question-answering technology will be key to a successful application. We will read and discuss research publications on various aspects of the technology, primarily focused on the Watson system.

Prerequisite: COSC 50
Distributive: Dist:TAS

**COSC 89.13 - Robot Motion Planning**

This is a small advanced seminar course in robotic motion planning. Topics to be covered include configuration space, forwards and inverse kinematics, differential kinematics, representations for motion planning, and classical planning algorithms including cell-decomposition and probabilistic methods.

Prerequisite: COSC 1, COSC 10, MATH 8
Cross-Listed as: COSC 189
Distributive: Dist:TAS

**COSC 89.14 - Research Topics in Human-Computer Interaction**

Instructor: Yang

This is a topics course in Human-computer Interaction. The course is designed to introduce students to advanced HCI research methods and techniques, including observation, design, implementation, and evaluation. It will also expose students to state-of-the-art research topics in HCI, including interaction techniques, actuated interfaces, ubiquitous computing, context-aware computing, tangible interfaces, mobile interfaces, and wearable interfaces. This course involves a mix of lectures given by professor and students with a major focus on the discussion of selected papers from ACM SIGCHI or ACM UIST Conference Proceedings.

Prerequisite: COSC 67, COSC 167
Distributive: Dist:TAS

**COSC 89.18 - Computational Methods for Physical Systems**

Instructor: Zhu

The Physical Computing course introduces students to mathematical concepts and algorithmic techniques for developing computational approaches to simulate, optimize, design, and control various physical systems. Course topics cover fundamental numerical approaches for modeling and simulating rigid body, soft body, and cloth, as well as design and optimization algorithms for drones and soft robots. The materials will be illustrated using examples and applications from physics-based animation, robot design, fashion design, and 3D printing.

Prerequisite: COSC 10
Distributive: Dist:QDS

**COSC 89.19 - Machine Learning for Robotics**

Machine Learning for Robotics is a course mixed with lectures, students’ presentations, and assignments that explore machine learning techniques for robotics applications. After a review of some supervised and unsupervised machine learning techniques, we will focus on some specific ones, currently popular in robotics including reinforcement and deep learning. Students will have the opportunity to use machine learning frameworks for some robotics problems.

Prerequisite: COSC 11 and COSC 50
Distributive: Dist:QDS

**COSC 89.20 - Data Science for Health**

Data science is being employed across diverse fields to improve human sensing and health. However, there are still many untapped opportunities. This course will cover state-of-the-art methods for data acquisition and analysis, with an emphasis on interpretation of behavioral and physiological data. Students will develop their skills by reading, presenting, and critiquing seminal research papers in the health space. The course will also include assignments and a group project to reinforce concepts and methods widely used in data science.

Prerequisite: COSC 74 or instructor permission
Distributive: Dist:QDS

**COSC 89.21 - Data Mining and Knowledge Discovery**

Instructor: Vosoughi

This course introduces the basic concepts, principles, methods, implementation techniques, and applications of data mining. The course covers all the steps required to turn raw data into meaningful insights, including: obtaining and cleaning data, pattern discovery, and data visualisation. Throughout the course, students will work on data mining projects using real-world data to gather hands-on experience. The course will be taught in Python.

Prerequisite: COSC 10; adequate knowledge of probability and statistics through a course such as COSC 74 or Math 10, or the permission of the instructor.
COSC 89.23 - Network Science and Complex Systems

Many of the systems that surround us are complex. These systems span almost every scientific field of inquiry, from biological to social, and computational sciences. To understand the behavior of complex systems, we must study not only the parts but the emergent behavior that arises from such systems when the parts act together. Complex systems are by definitions highly interconnected, therefore, at the core of studying complex systems is understanding networks. This seminar is an introduction to the main concepts of networks and complex systems, and their applications. The topics covered in this course will include: network topologies, network dynamics, motifs, dynamic systems, attractors, and chaos. The seminar mainly involves reading and discussing seminal, and ongoing, works in this field, but we will also be doing hands-on modeling and studying toy and real networks using Python.

Prerequisite: COSC 10; Math 3, adequate knowledge of probability and statistics through a course such as COSC 74 or Math 10.

Distributive: Dist:TAS

COSC 89.24 - Logic and Artificial Intelligence

The goal of this topics course is to study the foundations of different types of logic used commonly in artificial intelligence. Logic forms the basis for many types of reasoning used by humans – researchers in AI have extended classical logic over the years to numerous more “exotic” logics. This course will cover the foundations of a host of classical and non-classical logics, a number of interesting logics developed by by AI researchers for common-sense reasoning, and applications of those logics.

Prerequisite: COSC 76, COSC 176, or permission of the instructor.

COSC 89.25 - GPU Programming and High Performance Computing

The GPU Computing course introduces students to the basic programming and algorithmic techniques for developing the modern parallel computer code for high-performance computing applications. Course topics will cover the fundamentals for GPU (CUDA) and CPU (multi-threading) parallel programming, parallel computer architecture, parallel data structures, parallelizable linear algebra, conjugate gradient and multigrid solvers, particle systems and N-body problems, and vectorization. The materials will be illustrated using large-scale computing examples and applications from computer graphics, computational physics, and machine learning.

Prerequisite: This course assumes an understanding of multi-variable calculus and linear algebra and proficiency in C++ programming. Students are recommended to take COSC 70 as a prerequisite or to show equivalent understanding and comfortableness with the associated materials.

Distributive: Dist:QDS

COSC 89.26 - Security and Privacy in the Lifecycle of IoT for Consumer Environments

We are entering an era of Smart Things, in which everyday objects become imbued with computational capabilities and the ability to communicate with each other and with services across the Internet. Indeed, the Internet of Things now involves the deployment of Smart Things in everyday residential environments – houses, apartments, hotels, senior-living facilities – resulting in Smart Homes. Although Smart Things offer many potential benefits, they can also create unsafe conditions and increase risk of harm to persons and property. This course explores the key security and privacy challenges required for the vision of Smart Homes to be safely realized, with an explicit focus on consumer-facing “things” where end-user privacy and usability are essential. It will take a holistic approach to the entire lifecycle of security, privacy, and usability challenges from the perspective of the everyday consumer who interacts with Smart Things (intentionally or unintentionally) in a residential setting. Students will read, present, and discuss papers from the research literature; write a survey paper about a subset of the research literature; and conduct a security analysis of a current commercial “smart thing”. Guest lecturers will join the class, weekly, to share expertise from both industry and research.

Prerequisite: Required: COSC 50, and experience or willingness to read technical research literature. Useful: COSC 55, 58, 60, 62, 67, 91.

COSC 89.27 - Security and Privacy of Machine Learning

Instructor: Mehnaz

Today we see applications of machine learning almost everywhere we look – in the domains of autonomous driving, medical diagnosis, fraud detection, etc. While the use of machine learning is increasing in our day-to-day lives, these techniques also pose significant threats to security and data privacy. This course will explore recent academic research at the intersection of machine learning, security, and data privacy that demonstrates the risks adversaries pose to machine learning systems. The research papers explored in this course would cover attacks on machine learning systems as well as defense techniques to mitigate such attacks. Students will read, analyze, and discuss research papers, write summaries, take notes, and undertake a term-long research project.

Prerequisite: COSC 74. Assumes that students understand basics of machine learning. Knowledge of security &
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privacy useful but not required if students are willing/able to learn background materials on their own.

COSC 89.28 - Transforming Healthcare through Machine Learning: Challenges and Opportunities

Machine Learning (ML) lies at the core of a wide range of healthcare applications spanning from diagnosis to delivery of care. This course gives an overview of challenges and opportunities for ML in the era of digital health. We will explore advanced ML methods for healthcare and medicine through research papers. Specifically, we will cover recent successes of natural language processing, time-series analysis, and transfer learning to advance healthcare research. Students will choose and complete a course project, write a project report, and make project presentations at the end of the course. The course also requires the students to analyze, present, and discuss research papers.

The course is open to graduate and ambitious undergraduate students who are interested to gain hands-on experience in applied ML research. The course is designed to enable students to improve their technical communication and review skills and explore new research directions. It is important to note that this course will be conducted like a seminar (i.e. there are no formal lectures). We assume students are willing and able to learn some necessary background materials on their own. There will be office hours outside of scheduled class lectures.

COSC 91 - Writing, Presenting, and Evaluating Technical Papers in Computer Science

Students will learn how to write technical papers in computer science, how to present technical papers in a conference-talk setting, and how program committees and journal editors evaluate technical papers. Writing topics include the proper use of technical typesetting software, organization of technical papers, and English usage. Students will write technical papers, produce official course notes, and give oral presentations. Enrollment limited.

Prerequisite: Each student must submit a short expository piece to be evaluated by the instructor at the start of the course; only those students meeting a required level of competence will be permitted to take the course for a grade. Students should also have a Computer Science background sufficient to understand research papers.

COSC 94 - Reading Course

Advanced undergraduates occasionally arrange with a faculty member a reading course in a subject not occurring in regular courses.

COSC 98.01 - Senior Design and Implementation Project I

Instructor: Tregubov (Fall), Joosten (Winter)

Participation in a software engineering group project to meet a real-world need. Group members are responsible for all aspects of a software system, including iterative requirements analysis, design, implementation, and testing. The course also stresses customer interactions, documentation, process, and teamwork. The result is a software product of significant scope and significant benefit to a user base.

Open only to students pursuing a major in Computer Science or a modified major with Computer Science as the primary part. 98.01 and 98.02 constitute a two course sequence, and they must be taken in consecutive terms, either fall/winter or winter/spring, normally in the senior year.

Students are awarded one course credit for successful completion of this course upon completion of COSC-98.02. Students register for COSC-98.01 and receive a grade of “ON” (ongoing) at the end of the term. Students then register for COSC-98.02 the subsequent term to complete the coursework. A final grade will replace the “ON” in COSC-98.01 upon completion of COSC-98.02.

Prerequisite: At least two courses from COSC 50-69 or at least three courses from COSC 50-89, or permission of instructor.

COSC 98.02 - Senior Design and Implementation Project II

Instructor: Tregubov (Winter), Joosten (Spring)

Participation in a software engineering group project to meet a real-world need. Group members are responsible for all aspects of a software system, including iterative requirements analysis, design, implementation, and testing. The course also stresses customer interactions, documentation, process, and teamwork. The result is a software product of significant scope and significant benefit to a user base.

Open only to students pursuing a major in Computer Science or a modified major with Computer Science as the primary part. 98.01 and 98.02 constitute a two course sequence, and they must be taken in consecutive terms, either fall/winter or winter/spring, normally in the senior year.

Students are awarded one course credit for successful completion of this course. Students who have registered for COSC-98.01 register for COSC-98.02 to complete the coursework. A final grade will replace the “ON” for COSC-98.01 upon completion of this course for a total of 2 credits for COSC-98.01 and COSC-98.02.

Prerequisite: COSC 98.01

COSC 99.01 - Thesis Research I

Individual research on a topic along with a thesis advisor. Permission of the Undergraduate Program Director and
thesis advisor required. Open only to students pursuing a major in Computer Science or a modified major with Computer Science as the primary part. COSC 99.01 and 99.02 constitute a two-course sequence and must be taken in two consecutive terms, either fall/winter or winter/spring, normally in the senior year. In order to receive credit for COSC 99.01 and 99.02, a written thesis must be approved by the thesis advisor. A final grade will replace the ‘ON’ for COSC 99.01 after completing COSC 99.02.

COSC 99.02 - Thesis Research II

Individual research on a topic along with a thesis advisor. Permission of the Undergraduate Program Director and thesis advisor required. Open only to students pursuing a major in Computer Science or a modified major with Computer Science as the primary part. COSC 99.01 and 99.02 constitute a two-course sequence and must be taken in two consecutive terms, either fall/winter or winter/spring, normally in the senior year. In order to receive credit for COSC 99.01 and 99.02, a written thesis must be approved by the thesis advisor. A final grade will replace the ‘ON’ for COSC 99.01 after completing COSC 99.02.

Prerequisite: COSC 99.01

Comparative Literature - Undergraduate

Chair: Lawrence Kritzman

Professors J. Aguado (Spanish and Portuguese), R. E. Biron (Spanish and Portuguese), A. Coly (African and African American Studies), T. El-Ariss (Middle Eastern Studies), G. Gemünden (German), I. Kacandes (German), L. D. Kritzman (French and Italian), D. P. LaGuardia (French and Italian), G. Parati (French and Italian), S. Spitta (Spanish and Portuguese), M. R. Warren (Comparative Literature), D. Washburn (Asian Societies, Cultures and Languages, Film and Media Studies); Associate Professors N. Canepa (French and Italian), J. Dorsey (Asian Societies, Cultures and Languages), Y. Elhariry (French and Italian), V. Fuechtner (German), A. Gomez (Spanish and Portuguese), Y. Komska (German), A. Martín (Spanish and Portuguese), K. Mladek (German), M. Otter (English), I. Reyes (Spanish and Portuguese), A. Tarnowski (French and Italian), J. Smolin (Middle Eastern Studies)

*Courses in Comparative Literature are designed to meet the needs of students whose literary interests are broader than those that can be met by the curriculum of any single department.

To view Comparative Literature Undergraduate courses, click here. (p. 225)

To view Comparative Literature Graduate requirements, click here. (p. 742)

Requirements for the Major in Comparative Literature

The major seeks to provide an opportunity for selective and varied study of two or more literatures in their relation to each other, or for the study of a foreign literature in its relationship to an extraliterary discipline, such as film, music, or history (see the three options below). Each student’s major plan is designed individually around a particular focus of interest. Students planning to major in Comparative Literature will normally enroll in an Honors Program, which entails writing a thesis (60 to 80 pages) during their senior year in COLT 85 and COLT 87. Students not writing a thesis will write a senior essay in COLT 85.

The major is administered by the Comparative Literature Steering Committee. Students design their major plan in consultation with an advisor and the Chair, and must fill out an application form, available on the COLT website, describing their major, as well as the online declaration on DartWorks. All applications to the major must be approved by the Steering Committee. Major cards can be signed only by the Chair. Students interested in becoming majors should consult the Chair well in advance of their intended declaration of a major.

Prerequisite for the major: any from among the COLT 10's.

Required courses: any from among the COLT 72's, COLT 85, and, for honors majors writing a thesis only, COLT 87.

COLT 85 (Senior Seminar) is required to fulfill the culminating experience requirement for students who do not meet the honor requirements, and COLT 85 and COLT 87 (Thesis Tutorial) for students meeting honors requirements.

Major Requirements:

Students have two options for structuring their major:

A. Comparative study of literature and culture in two languages. This typically includes 2-4 Comparative Literature courses above COLT 10, fluency in one language (3-4 upper level course, normally not English), and competence in a second language (1-2 upper level courses).

B. Comparative study of literature and culture in one language (normally not English) and one other non-literary discipline (e.g. music, film, art, history, geography, physics, etc). This typically includes 2-4 Comparative Literature courses above COLT 10, fluency in one language (3-4 upper level courses), and substantive preparation in a non-literary discipline (3-4 upper level courses).
Requirements for the Minor in Translation

Translation Studies combines the practice of transferring texts from one language to another with theories of meaning and comparison. Translation is central to many literary traditions as well as to daily communications in a globalized world. Students in the Translation Studies Minor examine translation from multiple perspectives, providing them with practical skills applicable to many working environments. Students also gain broader analytic insights into language, culture, and literary genres. The Translation Studies Minor offers all students who study at least one language in addition to English the training to engage pragmatically and creatively with multilingual environments.

The Minor in Translation consists of six courses:
Prerequisite course: COLT 1 or COLT 10
Three courses focused on translation: COLT 19 and two others in COLT or other departments as approved
Two upper-level courses in one language (other than English)

Coursework in this Minor may not duplicate work counted towards other majors or minors. Only grades of 'B' and above may count toward the minor.

COLT - Comparative Literature - Undergraduate Courses

To view Comparative Literature Undergraduate requirements, click here. (p. 224)

To view Comparative Literature Graduate requirements, click here. (p. 742)

To view Comparative Literature Graduate courses, click here. (p. 742)

COLT 1 - Read the World
Instructor: Warren (21F) Washburn (22F)

Do you know how to read? Faces. Words. Pictures. Bodies. Games. Books. People. What are you really doing when you read the world? This course teaches comparative methods designed to confront the (mis)understandings and (mis)translations that constitute reading across the world's languages, locations, cultures, historical periods, and expressive forms. Classwork consists of hands-on exercises that engage ancient and modern myths and materials drawn from various media: text, movies, video games, anime, and digital arts.

Distributive: Dist:INT or LIT; WCult:CI

7 - First Year Seminars

Instructor: Staff

COLT 10.12 - Race in the Middle Ages
Instructor: Warren

This course serves as an introduction to comparative literature by asking questions about race across time periods, genres, languages, and cultures.

What are the differences between medieval and modern conceptions of race? What do interfaith romances have to do with colorism? Why do contemporary artists of the African Diaspora refer to medieval European literature? Our studies will include canonical English authors (Chaucer), Arab travelers (Ibn Battuta), and contemporary artists.

Distributive: Dist:LIT; WCult:CI

COLT 10.24 - Screening Family Matters: Gender, Crisis, and New Communities
Instructor: Martin

This is a course on contemporary film focused on the boundaries of "family." The course studies how "classic" films in different cultural contexts expose the ways the concept of family is deeply rooted in societal norms regarding gender roles, gender identity, race, and class configurations and how these intersect with normative configurations of love and care (and their opposites). These earlier films will serve as our starting point for critiquing societal values and traditions that can very often become oppressive and violent. Students will compare earlier filmmaking to more experimental and contemporary films that turn the concept of the traditional family structure on its head. These films will demonstrate a wider range of emotional territories, of alternative understandings of identity (queerness and trans-identity), and to thinking about care outside of the patriarchal family structure and more in terms of community. What kinds of new families do these films reveal?

Distributive: Dist:LIT; WCult:W

COLT 19 - Translation: Theory and Practice
Instructor: Otter (22), Canepa (23)

Translation is both a basic and highly complicated aspect of our engagement with literature. We often take it for granted; yet the idea of meanings lost in translation is
commonplace. In this course we work intensively on the craft of translation while exploring its practical, cultural and philosophical implications through readings in theoretical and literary texts. All students will complete a variety of translation exercises, and a substantial final project, in their chosen language.

Distributive: Dist:INT or LIT; WCult:W

COLT 39.03 - European Fairy Tales
Instructor: Canepa

Cross-Listed as: FRIT 37.04
Distributive: Dist:LIT; WCult:W

COLT 40.07 - Video Games and the Meaning of Life
Instructor: Cheng

Video Games and the Meaning of Life is an interdisciplinary course that explores the modern human condition through the stories, designs, and soundscapes of digital games—from the perils of obedience (Hannah Arendt and The Stanley Parable) to the metaphors of illness (Susan Sontag and That Dragon, Cancer), from the deathless dreams of pacifism (Undertale) to the transnational rise of today’s billion-dollar e-Sports industry (League of Legends). All students are welcome; no gaming or musical experience needed.

Cross-Listed as: FILM 50.04 MUS 046
Distributive: Dist:TMV; WCult:CI

COLT 51.01 - Masterpieces of African Literature
Instructor: Coly

This course is designed to provide students with a specific and global view of the diversity of literatures from the African continent. We will read texts written in English or translated from French, Portuguese, Arabic and African languages. Through novels, short stories, poetry, and drama, we will explore such topics as the colonial encounter, the conflict between tradition and modernity, the negotiation of African identities, post-independence disillusion, gender issues, apartheid and post-apartheid. In discussing this variety of literatures from a comparative context, we will assess the similarities and the differences apparent in the cultures and historical contexts from which they emerge. Readings include Chinua Achebe's Things Fall Apart, Naguib Mahfouz's Midaq Alley, Calixthe Beyala's The Sun Hath Looked Upon Me, Camara Laye's The African Child, and Luandino Vieira's Luanda.

Cross-Listed as: AAAS 51, ENGL 53.16
Distributive: Dist:INT or LIT; WCult:NW

COLT 51.05 - Silence, Exile, and Cunning: Comparing Jewish and African Diasporic Literatures
Instructor: Caplan

The diasporic subject is by definition a dislocated subject. This dislocation manifests itself not only with respect to space, but also in relationship to history, language, political power, and above all in the psychological relationship that diasporic subjects maintain with themselves. This course will focus on two primary examples of diaspora in the late nineteenth and twentieth centuries, Jews and Africans, to examine the multiplicity of relationships among language, literary structure, as well as gender and sexuality that inform the construction of diasporic literatures. Although this course cannot be comprehensive in its survey of either Jewish or African literatures, it will offer suggestive juxtapositions of the two to emphasize commonalities between their historical and political experience. It will also explore how the once exceptional condition of diaspora increasingly has become representative for more and more people in the world today.

Cross-Listed as: AAAS 65.65 JWST 15.01 MES 16.39
Distributive: Dist:LIT; WCult:NW

COLT 52.05 - On Survivors, Memories, and Tombs: State Violence in South America through Literature and Cinema
Instructor: Minchillo

In the 1960s and 1970s, South America experienced a new cycle of state violence perpetrated by military dictatorships. The authoritarian regimes installed in Brazil (1964-85), Uruguay (1973-85), Chile (1973-90) and Argentina (1976-83) caused deep ruptures in collective and individual lives and still resonate in the South American political, social and cultural landscapes. After the democratic systems were reestablished in the region, new facts about the abuse of power by the militaries were disclosed, and a heated debate took place in the public sphere about how to deal with the past. Feature films, documentaries, and fiction and non-fiction literature played an essential role in that debate by providing different strategies of healing scars, honoring victims and survivors, and preserving the memory of both the terror and the grassroots resistance. The experiences and memories of the so-called "dirty war" in Argentina, Brazil, Chile, and Uruguay generated not only several fictional renderings of state terrorism during the "years of lead," but also a whole series of testimonios by those directly affected by it, such as the daughters, sons and spouses of desaparecidos who were assassinated by the machinery of state repression.

This class focuses on the legacies of dictatorships in South America and the politics and aesthetics of representation of state violence and political resistance. Students will be introduced to central concepts of memory and trauma studies and will conduct comparative literary and
cinematic analyses of works by Latin American writers and film directors.

Cross-Listed as: LACS 44.40
Distributive: Dist:LIT; WCult:NW

COLT 57.02 - Migrants, Sopranos, Race, and Italian American Film
Instructor: Parati
This course considers the role of culture and identity, migration, evolution of language, gender, race, and class issues, and studies the diverse cultural and artistic productions (literary, cinematic, musical, multi-media) that exemplify the tensions and negotiations between cultures and people.

Cross-Listed as: FRIT 35.01
Distributive: Dist:LIT; WCult:CI

COLT 57.10 - Social Revolutions East and West: Japan and the United States in the 1960s
Instructor: Dorsey
This course examines social movements in the United States and Japan during the turbulent 1960s. Activists and artists engaged with civil rights causes, anti-war movements, and campaigns to end discrimination of all sorts, blending these political agendas with the production of culture and the deployment of new technologies. As a result, new cognitive praxes came into place, and the patterns of knowledge production were forever changed. With a focus on the genres of music, comics/manga, and literature as they evolved in America and Japan in the 1960s, students in the course will learn to recognize how knowledge and worldviews are shaped by the systems of culture that generate them. There are no prerequisites for this course.

Cross-Listed as: ASCL 70.18
Distributive: Dist:INT or LIT; WCult:CI

COLT 60.01 - Literature and Music
We will be asking questions about the interplay of literature and language with music. Does music have “meaning” in the conventional or in any other sense, and if so, does it have a characteristic way of conveying meaning? We will consider several permutations of the relationship of music and language, and especially inspect the fringes, where a listener may say “this is no longer music” or “this is no longer speech.” Does music without a text in fact always have a text? What happens to poems when they become songs or prose plots when they become opera? Conversely, are there stories that incorporate music or are composed according to a musical form? In your writing, you may choose musical examples that suit your tastes and expertise; and you will devise and write a final paper of your choice.

Distributive: Dist:INT or LIT; WCult:W

COLT 63.02 - Modern Conspiracy: The Russian and American Conspiracist Traditions
Instructor: Patyk
Conspiracy narrative has come to dominate our national and international political discourse like no other time in modern history. It is therefore essential that we understand the operation of conspiracy narrative, its psychological allure and political function, and its devastating social consequences. In this course, we will investigate two national conspiracist traditions, the American and the Russian, and the parallel rise and stunning convergence of Russian and American conspiracism in our current political moment. In order to do so, we will inquire into the historical origins, the form, function, and effectiveness of conspiracist narratives in these two traditions in the 20th and 21st centuries. Ultimately we will approach conspiracy theories as ways of knowing, of penetrating and ordering complex and opaque realities. They are also powerful narrative weapons that imperil the shared truths on which cohesive societies are based. Our course texts include The Master and Margarita (Bulgakov), The Crucible (Miller), and Libra (DeLillo), Ivan the Terrible Part II (Eisenstein) The Manchurian Candidate (Frankenheimer) and The Matrix (The Wachkowskis) as well as literary and cultural studies of conspiracist narrative and ideation.

Cross-Listed as: RUSS 38.10
Distributive: Dist:INT or TMV; WCult:W

COLT 64.01 - Nazis, Neonazis, Antifa and the Others: Exploring Responses to the Nazi Past
Instructor: Kacandes
Why do the Nazis remain the world’s epitome of evil? What did they actually do? And how specifically are they remembered, depicted, emulated, despised or ignored since the catastrophes of the mid-twentieth Century? In this course we will examine the main events connected with the Second World War, the genocide of European Jewry and Roma-Sinti, forced resettlements of various populations, and the Allied attacks on the German civilian population. We will analyze the different stages of coming to grips with that past on the part of German and some other postwar societies, by examining together a number of controversies like those surrounding the Nuremberg, Frankfurt, Eichmann and Barbie trials, the campaign to build a Holocaust memorial in Berlin, Neonazism, the Wehrmacht photo exhibition, and the current campaign to remember German civilian casualties and losses. Approaching our topic with interdisciplinary and comparative methodology, that is, by utilizing history, journalism, video testimony, music, literature, and art, including film, photography and architecture, students will develop their own perspectives on the formation of postwar German identity and why Nazis remain the
epitome of evil. An individual midterm project will allow students to practice the skill of summarizing different sides of a debate, and a final group project will invite students to solidify what they have learned in the course about the formation of national identity by creatively staging a contemporary debate about the Nazi past.

Cross-Listed as: GERM 015 JWST 37.02
Distributive: Dist:LIT; WCult:CI

**COLT 66 - Literature and Psychoanalysis**
Instructor: Kritzman
This course aims to explore the relationship between literature and the theoretical and clinical writings of psychoanalysis. Through readings representing a wide range of psychoanalytic and literary traditions, we will examine the connections that can be made between psychic structures and literary structures, between the language of the mind and the emotions and the language of the literary or cultural text.

Distributive: Dist:INT or LIT; WCult:W

**COLT 70.05 - Environmental Imagination: Ecological Narratives for the Anthropocene**
Instructor: Benvegnu

*What can the Humanities teach us about our relationship with the environment?* In this class, students will be introduced to the relatively new field of ecologically oriented literary and cultural studies. We will critically engage with various cultural constructions of environmental concepts and practices in a range of artworks exemplifying different discourses of nature (e.g. mythological, philosophical, scientific) and media (e.g. literature, cinema, land art, music, etc.). We will thus explore how an artwork can convey narratives of environmental resistance and ecological liberation as well as embody the historical continuity between human communities and specific territories. In addition, consideration will be given to the emergence of a number of distinct approaches within the Environmental Humanities, such as critical ecofeminism, biosemiotics, environmental justice, critical animal studies, new materialism, and posthumanism.

We will thus include in our class the rewarding practices of observation, hands-on experimentation, and skill-building perspectives, as well as try as much as possible to move beyond the classroom and embrace the world as an ideal learning space.

Distributive: Dist:LIT; WCult:W

**COLT 72.01 - Global Literary and Cultural Theory**
Instructor: Washburn (21) LaGuardia (22)

Comparative Literature entails conscious engagements with theories of literature, language, and culture from throughout the world. This course ranges across some of the ideas that have been influential in shaping scholarly questions in a variety of languages. It also addresses the global dimensions of theory: rhetorics and ethics of comparison, world literature, and indigenous knowledges.

Distributive: Dist:LIT; WCult:CI

**COLT 85 - Senior Seminar in Research and Methodology**
Instructor: Kritzman

CoLt 85 is a seminar/workshop designed to support the preparation of the honors thesis or culminating project. The work done in this course supplements the independent research and writing students will be undertaking with their academic advisor. The main tasks for this seminar include: a consideration of possible ways to frame analysis within chosen field; a review of basic research protocols; and practice in how to make use of theory, historical documents, and translation in developing the thesis/culminating project.

**COLT 87 - Thesis Tutorial**
Instructor: various faculty

Permission of the Chair is required.

The John Sloan Dickey Center For International Understanding

Director: Victoria K. Holt

To view International Studies courses, click [here](#).
To view International Studies requirements, click [here](#).

The John Sloan Dickey Center for International Understanding unites the many strengths of Dartmouth — its students, faculty, undergraduate and professional schools — in addressing the world’s challenges, and ensuring that a rigorous understanding of the world is an essential part of the Dartmouth experience. The Center honors the commitment to international understanding and social responsibility exemplified by President John Sloan Dickey’s lifetime devotion to liberal arts education, scholarship and values.

The Dickey Center offers students opportunities to expand their knowledge of international issues, through international internships, research grants, and the opportunity to join student organizations and publications focused on foreign affairs. Students may choose to pursue the International Studies Minor (ISM) supported by the Dickey Center and/or further refine their international studies with courses and activities in global security and conflict (War and Peace Studies Fellows Program), polar science, cultures, and climate change (Institute of Arctic Studies), and global health (the Global Health Initiative). A
focus on global issues of gender and human development are cross-cutting throughout these activities.

Through symposia, conferences, public events, the Rosenwald Fellows program in US Foreign Policy and International Security, and extended visits by practitioners and scholars in the Dickey Visiting Fellows Program, the Center brings the vital issues of the day to campus. It enhances the intellectual life of the faculty through its support of faculty research and publications, and brings new opportunities to students through international studies.

The Center’s multidisciplinary approach to complex issues is exemplified by its institutes. The Institute of Arctic Studies promotes interdisciplinary scholarship in polar environmental science and engages the work of scientists, humanists, Indigenous communities, and policy makers. The Global Health Initiative, where students can work toward a Global Health Certificate, is a collaborative enterprise with Geisel School of Medicine that marshals the talents of the entire campus and international partners to address global health concerns. In its quest to understand the phenomenon of collective violence, the War and Peace Studies program, focusing on issues of global security, incorporates the study of both the global state system as well as the varieties of human conflict, drawing on a range of fields and disciplines. The Center also promotes the study of gender and human development across all these fields.

The Center benefits from the advice of a distinguished Board of Visitors. The offices of the Dickey Center are located on the first floor of the Haldeman Center.

*International Studies Minor*

*The Institute of Arctic Studies*

*Global Health Initiative*

*War and Peace Studies*

*International Studies Minor*

Coordinator: Casey Aldrich


The International Studies Minor is open to students from all majors seeking to better understand the cross-cutting global forces that shape the vital issues of our day.

The Minor is coordinated by the John Sloan Dickey Center for International Understanding and draws upon faculty expertise from across the College. Students graduating with a Minor in International Studies will be able to demonstrate that they are cognizant of the interplay between local and global-level processes, human and environmental interactions, and place, identity, and culture. They will further be able to apply this understanding to the complex global issues of our time in order to better understand their causes and consequences, and to assume the mantle of responsibility that comes with global citizenship.

Application for the Minor should ideally be made by the student’s sixth term of study. No course in the minor may be taken under the Non-Recording Option.

Prerequisite: None.

Requirements: A total of six (6) courses, to include the following:

Four (4) ‘core’ multidisciplinary courses:

- INTS 15: Violence and Security
- INTS 16: Introduction to International Development
- INTS 17: Cultures, Places, and Identities
- INTS 18: Global Health and Society
- One (1) foreign language and literature course beyond 1, 2, 3 introductory sequence and excluding literature courses taught in English. If a student has been granted a language requirement waiver, is exempted from the college's foreign language requirement, or is pursuing a major or minor in a foreign language at Dartmouth, a second general elective course can be used to fulfill this requirement at the Steering Committee's discretion.
- One (1) elective course selected from a list of courses approved by the Steering Committee

Core Courses are offered annually. Students for whom the D-plan renders it impossible to take the specific courses above may petition the Steering Committee to substitute a similar course offered at the College. No more than two of the four core courses may be substituted. Substitutions are permitted at the discretion of the Steering Committee.

*INTS - International Studies Courses*

To view International Studies requirements, click here (p. 229).

To view information on the John Sloan Dickey Center, click here (p. 228).
INTS 15 - Violence and Security
Instructor: W. Wohlforth
Violence and Security is a multidisciplinary introduction to scholarship on the causes, consequences, and possible prevention of armed violence between groups. Using multiple social science disciplines, we will examine armed violence within, between, and across states, ranging from civil war, "ethnic" conflict, insurgency, and inter-state war. The course addresses the trade-offs created by different political solutions to the problem of security, and features a group simulation exercise to explore the challenges faced by governments and non-governmental organizations when they seek to ameliorate it.
Distributive: Dist:INT or SOC

INTS 16 - Introduction to International Development
Instructor: Freidberg (21F, 22F), Fox (22S, 23S)
Why are some countries rich and others so persistently poor? What can and should be done about this global inequity and by whom? We address these development questions from the perspective of critical human geography. Focusing on the regions of Latin America, Africa and Asia, we examine how development meanings and practices have varied over time and place, and how they have been influenced by the colonial history, contemporary globalization and international aid organizations.
Cross-Listed as: GEOG 08.01
Distributive: Dist:INT or SOC; WCult:NW

INTS 17.02 - From Dagos to Sopranos: Italian American Culture
Instructor: G. Parati
This course considers the role of culture and identity, migration, evolution of language, gender, race, and class issues, and studies the diverse cultural and artistic productions (literary, cinematic, musical, multi-media) that exemplify the tensions and negotiations between cultures and people.
Distributive: Dist:LIT; WCult:CI

INTS 17.04 - Migration Stories
Instructor: Spitta/Gemünden
With over 50 million displaced people today, migration is one of the most compelling problems of our time. Filmic and literary representations of migration focus on borders, different types of migrants, and their border crossing experiences. We will study migration from Latin America to the U.S.; from Africa and Eastern Europe to Western Europe; and internal migration within these countries. We will also analyze how Hollywood cinema itself creates images and values that drive migration.
Distributive: Dist:INT or ART; WCult:CI

INTS 17.07 - Memories from the Dark Side: Political and Historical Repression in Europe
Instructor: J. Aguado
On a continent where war, exile, extermination, and political and cultural repression have been pervasive over the centuries, new identities of resistance can emerge if Europeans place at their center the unforgivable memories of their shared atrocities. This course will address European integration not only as an economic or political concept but instead as a cultural practice in the arts, particularly in literature and film. Authors include Sempurn, Livy, Amery, Kiss, Jelloun, Samaram and films by Resnais, Wajda, von Trotta, and Costa-Gavras.
Cross-Listed as: COLT 57.07
Distributive: Dist: LIT; WCult: CI

INTS 17.08 - The Humanities and Human Rights: Thoughts on Community
Instructor: A. Martin
This course will focus on the deep connections between democracy and the role of the arts in the public sphere. Never has the public sphere been so challenged, so weakened, so undermined by the logic of an all-encompassing economic rationale that has evolved from the abstraction of economic theory and its vision of unimaginable profits to the reality of dilapidated world economies and bankrupt social welfare systems. Given this blindness, it comes as no surprise that we would be living in times that do not pay enough attention to the humanities or to the aesthetic realm for they seem too "removed" from the day to day facts of "reality." But let's think again. Who bears witness to the suffering and inequalities around us, to the walls that have been relentlessly erected to keep us all in place? Writers, filmmakers, documentarians, photographers, poets, individuals, who make "energy" (intellectual energy) usable in different places and contexts (Hutcheon). This course will cross disciplinary boundaries and follow the "comparative method" scrupulously. We will be reading literature with care and learning how to read literarily—with intensive textual scrutiny, defiance, and metatheoretical awareness (Saussy)—a wide array of theoretical and filmic texts. Our goal will be to travel from the theoretical to the particular and vice-versa, from the literary and filmic stories to the suprapersonal, to the wider polity and back to the personal, for these texts share a passion for change through recognizing our shared vulnerability and humanity. With varying degrees of insight, these texts bear witness to how the experience of crisis and regeneration is also a gendered one.
Cross-Listed as: WGSS 67.04; COLT 57.08
Distributive: Dist:INT or ART; WCult:CI
INTS 17.09 - Multilingualism and its Others
Instructor: Yuliya Komska

"Multilingualism" and "monolingualism" are notions that appear clear-cut, uncontested, and normative. But are they? In this case, we will examine the rise (and fall) of multilingualism and its others -especially monolingualism-to sharpen out understanding of these terms' use and implications. Where and when did they emerge theoretically? What challenges do they pose to writing, translation, the global traffic of texts, and language-learning advocacy? Readings will draw on serveral disciplines, with research projects reflecting each student's investment in the topic.

Cross-Listed as: COLT 49.06
Distributive: Dist:SOC

INTS 17.10 - How to Be a Fascist
Instructor: G. Parati

How do people become fascists? How do they rise to power? Why did people support fascism? We will focus initially on the original model for fascist dictatorships, that is Italian fascism, but we will also have in-class presentations by Dartmouth professors on German, Spanish, French and Japanese forms of fascism. This is a course that will concentrate on history, film, literature, and fashion in order to talk about the slippery definitions of fascism.

Cross-Listed as: COLT 57.09 ITAL 35.02
Distributive: Dist:INT; WCult:W

INTS 17.11 - Strange Natives, Strange Women: The Uninvited Others of European Literature
Instructor: John Kopper

How have Europeans colonizers represented differences between themselves and the peoples they have conquered? How do perceived or imagined differences of ethnicity or gender arise from and help constitute the colonizers' own sense of cultural and national identity? We will explore these questions in literature and travel writings by authors such as: Bâ, Babel, Césaire, Conrad, Equiano, Euripides, Friel, Rhys, Rider Haggard, Shakespeare, and Tolstoy.

Cross-Listed as: COLT 10.01
Distributive: Dist:LIT; WCult:W

INTS 17.12 - New Latin America Cinema
Instructor: Gerd Gemunden

With the emergence of filmmakers such as Alejandro Iñárritu (Mexico), Lucrecia Martel (Argentina), and José Padilha (Brazil), the last decade has seen a creative boom in Latin American cinema that includes art house cinema, blockbusters, documentary, and experimental film. Beginning with a quick overview of key forerunners, this course will focus on the major directors, genres and aesthetic trends that characterize the new Latin American cinema. We will also pay attention to the role film festivals-such as the Havana Film Festival, BAFICI in Buenos Aires, and the Berlin Film Festival-have played in promoting Latin American films.

Cross-Listed as: COLT 52.02 FILM 42.03 LACS 30.06
Distributive: Dist:INT

INTS 17.13 - Cultures of Surveillance: Globalization and Film Trilogies
Instructor: Rebecca Biron

Who's watching whom, and why does it matter? A number of 21st century popular film trilogies highlight cultures of surveillance within the context of globalization. Is there a relationship between plots based on global surveillance techniques and the fact that these plots are so successfully developed through film per se? What is the implied role of the viewer in such films? In what way does trilogy as a form of fragmented storytelling contribute to our understanding of surveillance across borders? Who identifies with whom in these tripartite visual narratives of globalization? What is the relationship among intertwined plotlines, global/international intrigue, geo-political borders, the role of the hero, and the role of viewers?

Cross-Listed as: COLT 42.05
Distributive: Dist:LIT; WCult:W

INTS 17.14 - European Jewish Intellectuals
Instructor: Lawrence Kritzman

The course will examine the role of the Jewish intellectual in twentieth century Europe. We shall focus on several paradigmatic figures (Arendt, Benjamin, Adorno, Levinas, Derrida) who confront the redefinition of politics and civil society in modern times. Some attempt to deal with these changes through a critical reflection on the concepts of democracy and ethics and on how justice can be practiced either within or outside of the geographical and spiritual boundaries of the modern nation state. We shall examine how Jewish self-consciousness and a deep attachment to biblical tradition enables these intellectuals to reconcile ethical imperative with political realities. Particular attention will be paid to topics such as the challenges of Eurocentric Christian humanism and universalism to Jewish assimilation; the promises of totalitarianism, Marxism and messianism; the politics of biblical exegesis; history and Jewish mysticism; Zionism, antiZionism and the ArabIsraeli conflict.

Cross-Listed as: COLT 70.03 JWST 026
Distributive: Dist:TMV; WCult:W
INTS 17.15 - Migration, Ecology, and the Mediterranean

Why do people migrate? How does their migration impact the places they cross? How have migrations trajectories changed in the last 150 years? Why do people embark in a risky journey across the Mediterranean Sea? How do their destination countries react to their arrivals? How does migration chance Europe? These are some of the questions we will try to answer in this class. Using an interdisciplinary approach, we will look at what the impact of migration is on the environment and in the process of changing old ideas about what Europe is. Through an interdisciplinary approach using material that originates from both the humanities (film and literature literature) and the social sciences (mainly geography and sociology), we will explore the present and discuss the possible futures of migrations across the Mediterranean.

Cross-Listed as: COLT 57.11, ITAL 35.03
Distributive: Dist:INT; WCult:W

INTS 18 - Global Health and Society

Instructor: 21F, 22S, 22F, 23S (Fox), 22W, 23W (Adams, Butterly)

Only a few decades ago, we were ready to declare a victory over infectious diseases. Today, infectious diseases are responsible for the majority of morbidity and mortality experienced throughout the world. Even developed countries are plagued by resistant "super-bugs" and antibiotic misuse. This course will examine the epidemiology and social impact of past and present infectious disease epidemics in the developing and developed world. The introduction of drugs to treat HIV/AIDS in sub-Saharan Africa will be considered from political, ethical, medical, legal and economic perspectives. Lessons from past and current efforts to control global infectious diseases will guide our examination of the high-profile infectious disease pathogens poised to threaten our health in the future. Open to all students. Limited to 35 students.

Cross-Listed as: GEOG 21.01
Distributive: Dist:INT or SOC

INTS 80.01 - Violence and Prosperity

Instructor: H. Clark

Are we living in a violent age? And is economic globalization an impetus for our violent times? Although many would answer Yes in both cases, a generation of research in fields such as history, political science, and economics suggests a different approach. This course will join the exciting debate over whether violence has indeed declined, and if so, why.

Distributive: Dist:INT or SOC

INTS 81.01 - The Challenges of Global Poverty

The course addresses the economic, social, cultural, environmental and political dimensions of the global commitment to eliminate extreme poverty by 2035, in line with the recent adoption of the Sustainable Development Goals and the pledges by world leaders. The course identifies the key characteristics of poverty, the global trends, and the changing emphases of sustainable development policy and practice since the 1960s. The course addresses the differing roles of development actors, including governments, civil society, international donors, and the private sector; the importance of engaging marginalized populations; specific efforts in key sectors such as food security, health, education and infrastructure; the role of advanced technologies; the interplay between poverty and conflict; and the impact of global climate change. Real-world case studies are incorporated fully into the instruction.

Distributive: Dist:INT

INTS 82.01 - Global Health Field Research: Methods and Practice

Instructor: Lisa Adams

This course prepares Dartmouth students to undertake field research to answer a substantive policy or service delivery research question for an international partner. Course participants explore a global health or international development problem from a scientific, social, cultural, and policy perspective while gaining an understanding of the complexities of public policymaking and service delivery in a low or middle-income (LMIC) setting. Following the completion of the course, students will be able to participate in a co-curricular, team-based project at an international field site.

The Institute of Arctic Studies

Director: Melody B. Burkins

The Dickey Center’s Institute of Arctic Studies was founded in 1989 in recognition of Dartmouth’s distinguished history in Arctic and northern studies. Our aim is to facilitate faculty and student research, teaching, and an understanding of issues facing high latitude regions with emphasis on the respect and engagement of Arctic communities and Indigenous Peoples. We connect Dartmouth faculty from the College and professional schools with colleagues throughout the circumpolar north and maintain longstanding and valuable partnerships with the University of the Arctic (UArctic), the Stefansson Institute in Iceland, the US Arctic Research Commission (ARCUS), the National Science Foundation Polar Programs Office, the U.S. Cold Regions Research and Engineering Lab (CRREL), Arctic Indigenous Peoples’ leadership, Canada Fulbright and the U.S. State Department Fulbright Arctic Initiative, the University of
The Global Health Initiative (GHI) is a Dartmouth-wide Faculty Affiliate: Lisa V. Adams, M.D. Center for Global Health Equity (CGHE) with the Geisel School of Medicine, the Dickey Center GHI works across Dartmouth and international non-governmental organizations (NGOs) around the world. Our work to inform policy and advance impact consists of joint research, knowledge sharing, capacity building, and education programs with global health colleagues around the world, all informed and driven by co-created priorities. Wherever possible, our educational activities provide opportunities for Dartmouth students and trainees to work with counterparts outside of the US in a co-learning environment and/or advance bi-directional exchanges with partner institutions and countries.

Each year, GHI also hosts multiple internships and fellowships supporting students working with faculty and practitioners with diverse experience in global health. Students may apply to a formal Global Health Fellows program, where - through regular meetings as a cohort - they will learn foundational global health research and practice methods and host conversations with experts in a diversity of global health fields, from health systems and data science to leaders in healthcare policy, infectious disease research, global health security, health and development, health diplomacy, and more.

**War and Peace Studies**

Coordinator: Benjamin A. Valentino

Steering Committee: P. A. Bien (English, Emeritus), V. K. Holt, Director Dickey Center, J. M. Lind (Government), J. A. Friedman (Government), B. A. Valentino (Government), Director of the Dickey Center.

War and Peace Studies is administered by the John Sloan Dickey Center for International Understanding. The Jean Monnet Fund for War and Peace Studies, which is part of the Dickey Center’s endowment, was established in 1985 by John C. Baker and Elizabeth Baker to honor the Dartmouth trustees who had the vision in 1961 to award Jean Monnet an honorary degree. It was also to honor the three founders of War and Peace Studies at Dartmouth College: Leonard Reiser, Elise Boulding, and Peter Bien.

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The problems of peace and war demand multifaceted solutions that require the study of such diverse fields as government, history, literature, languages, sociology, environmental studies, geography, anthropology, psychology, and economics. Rather than being housed in any one department, War and Peace Studies is accordingly a synthesis of various disciplines concerned with the problems of peace and reconciliation, arms control, war, and, more generally, collective violence. Its broad objectives are to support teaching, research, and public discussion of important issues in these fields. War and Peace Studies administers a War and Peace Fellows program for students and presents a series of public speakers and other events.

A core focus on international polar science education and outreach is supported by IAS leadership of the Joint Science Education Education Project (JSEP), an experiential, inclusive STEM education program for high school students funded by the US National Science Foundation in partnership with Greenland and Denmark. IAS also supports several student-led organizations at Dartmouth, including Aurora, dedicated to Dartmouth-Alaska connections, and the Science, Technology, and Engineering Policy Society (STEPS), focused on the advancement of science policy and science diplomacy at Dartmouth, among others.

**Center for Global Health Equity**

Faculty Affiliate: Lisa V. Adams, M.D.

The Global Health Initiative (GHI) is a Dartmouth-wide program dedicated to improving the health of the world’s population through multidisciplinary research, education and service. A founding partner in the Center for Global Health Equity (CGHE) with the Geisel School of Medicine, the Dickey Center GHI works across Dartmouth College and the professional schools, the Dartmouth-Hitchcock Medical Center, and a network of partners around the world to pursue solutions to critical challenges in global health as we help train the next generation of global health leaders.

Global partnerships and the advancement of global health equity are central to all Dickey Center GHI programming and activities. Our GHI partners beyond campus include national global health leaders, international ministries of health, academic institutions, research institutes, and local and international non-governmental organizations (NGOs) around the world. Our work to inform policy and advance
Earth Sciences - Undergraduate

Chair: Robert L. Hawley

Professors X. Feng, C. E. Renshaw, M. Sharma; Professor Emeritus G. D. Johnson; Research Professor B. P. Jackson; Associate Professors R. L. Hawley, M. A. Kelly, E. C. Osterberg, L. J. Sonder; Associate Professor Emeritus W. B. Dade; Assistant Professors C. B. Keller, W. D. Leavitt, M. C. Palucis, S. P. Slotznick, J. V. Strauss; Research Instructor E. E. Meyer; Adjunct Professors F. J. Magilligan, K. J. Peterson; Adjunct Associate Professor J. M. Winter; Adjunct Assistant Professors C. Hicks-Pries, J. Mankin, C. Meyer; Senior Lecturer E. Meyer; Adjunct Lecturer J. W. Chipman

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Prerequisites for all majors and minors including the modified majors

• One introductory Earth Science course (EARS 1-9, exclusive of EARS 7)
• EARS 40 (not required for the Environmental Earth Sciences Minor)
• CHEM 5 (or CHEM 10) (for the Environmental Earth Sciences Minor, any one of the following courses: CHEM 5 (or CHEM 10), PHYS 13 (or PHYS 3 or PHYS 15), or BIOL 16).
• Any one of the following courses taken at Dartmouth: MATH 3, MATH 8, MATH 9, MATH 11, MATH 12, MATH 13, MATH 14, MATH 23, or MATH 46.

Field studies requirement for all majors except modified majors with EARS as the secondary department

• Successfully complete one of the following three options:
  • EARS 45, EARS 46, AND EARS 47 (the Stretch)
  • Any three of the following courses having significant field components: EARS 33, EARS 38, EARS 52, EARS 58, EARS 59, EARS 71, or other course(s) approved by the Chair. None of these courses may also be used to satisfy another requirement for the major.
  • Transfer course credit from an accredited geology field studies program (including accessible programs).

The Department of Earth Sciences is committed to making the earth sciences accessible to all and encourages students interested in an immersive field experience but unable to complete the Stretch to consider, as appropriate, summer field courses offered by other universities or the alternative accessible field course listed on the International Association for Geoscience Diversity website. Substitute field methods courses offered by other institutions must be approved in advance by the Chair. Since substitute courses will likely receive one or two Dartmouth course transfer credit(s), a student will usually need one or two additional Earth Sciences courses numbered 30 or above to meet Dartmouth's eight course major requirement. Be advised that the Registrar may charge a fee to transfer course credits to Dartmouth. Contact the Registrar's Office for more information regarding the transfer fee.

Culminating experience requirement for all majors except modified majors with EARS as the secondary department

• Majors must complete one of three options to fulfill the College's culminating experience requirement:
  • Honors Thesis, as described below (EARS 89 and, optionally, EARS 90 or 91 but not both).
  • Independent research project, generally of one term duration, under the supervision of a faculty member (EARS 87).
  • Senior Seminar, EARS 88 (Fall term only).
• In addition, to fulfill the College’s culminating experience requirement, all students must attend the weekly research seminar during Winter and Spring of their senior year.

Relevant courses outside the department for the Environmental Earth Science majors and minor that may satisfy some of the required course requirements

The Environmental Earth Science major and minor, including modified majors, permit qualifying courses above the introductory level in Geography, Environmental Studies, Engineering, Chemistry or Biology to satisfy some of the course requirements. The following courses are recommended but others are permitted subject to the permission of the Chair: CHEM 63 (Environmental Chemistry); ENVS 20 (Conservation of Biodiversity), ENVS 25 (Ecological Agriculture), or ENVS 30 (Global Environmental Science); BIOL 21 (Population Ecology), BIOL 25 (Introductory Marine Biology and Ecology), or BIOL 51 (Advanced Population Ecology); ENGS 37 (Introduction to Environmental Engineering), or ENGS 41
The Earth Sciences Major

**Prerequisites:** As described above

**Required courses:**
- One Data Analysis course (EARS 10-19)
- Field requirement as described above
- Two Core Methods and Concepts courses (EARS 30-59, exclusive of 45-47). At least one of these must be an Advanced Core Methods and Concepts course (EARS 50-59).
- One Quantitative Analysis course (EARS 60-69)
- One Advanced Topics course (EARS 70-79)
- Culminating experience as described above

The Environmental Earth Sciences Major

**Prerequisites:** As described above

**Required courses:**
- One Data Analysis course (EARS 10-19)
- Field requirement as described above
- One Quantitative Analysis course (EARS 60-69)
- One Advanced Topics course (EARS 70-79)
- At least two additional courses that are either Earth Sciences courses numbered 30 or higher or relevant courses in Geography, Environmental Studies, Engineering, Chemistry or Biology as described above.
- Culminating experience as described above

**Advisories for Majors**

First-year students planning a major in Earth Sciences or Environmental Earth Sciences are advised to complete the prerequisite courses, exclusive of EARS 40, by the end of their sophomore year.

Students contemplating a professional career in earth sciences are advised that:

1. Training at the Master’s level or above is becoming increasingly necessary.
2. Most graduate schools have minimum entrance requirements equivalent to MATH 3 and MATH 8, CHEM 5-6, and PHYS 3-4 or PHYS 13-14. Minimal expectations for Earth Sciences preparation include material taught in EARS 40, EARS 51, EARS 52, EARS 58, and EARS 59.

The Earth Sciences Minor

**Prerequisites:** As described above

**Required courses:** Four Earth Sciences courses numbered above 10, of which three must be numbered 30 or higher.

The Environmental Earth Sciences Minor

**Prerequisites:** As described above except EARS 40 not required

**Required courses:** A total of 5 courses in addition to the prerequisite courses is required for the Environmental Earth Sciences minor. Three or more of these must be in Earth Sciences. The Earth Sciences courses must be numbered greater than 10; of these, two courses must be Core Methods and Concepts (EARS 30-59) and one must be numbered 60 or above (Quantitative Analysis of Earth Systems or Advanced Topics). Up to two of the five required courses may be relevant courses in Geography, Environmental Studies, Engineering, Chemistry or Biology as described above.

The Modified Major

**Modified Major with Earth Sciences as the primary department** (in addition to the general rules in the Regulations section of this catalog.)

**Prerequisites:** As described above

**Required Courses:** six courses, of which three satisfy the Field requirement listed above. Of the other three, all must be above the introductory level (numbered above 10) and two must be numbered above 30 (Core Methods and Concepts, Quantitative Analysis, or Advanced Topics courses).

In addition, fulfill the culminating experience requirement as described above.

**Modified Major with Earth Sciences as the secondary department** (in addition to the general rules in the Regulations section of this catalog.)

**Prerequisites:** As described above

**Required Courses:** Four courses numbered 10 or above, at least one of which must be a Core Methods and Concepts course (EARS 30-59) and at least one of which must be a Quantitative Analysis or Advanced Topics course (EARS 60-79).
**Modified Major with Environmental Earth Sciences as the primary department** (in addition to the general rules in the Regulations section of this catalog.)

**Prerequisites:** As described above

**Required Courses:** six, of which three satisfy the Field requirement listed above. Of the other three, all must be above the introductory level and one may come from a third department (neither the primary nor secondary department); relevant courses in Geography, Environmental Studies, Engineering, Chemistry or Biology are described above.

In addition, fulfill the culminating experience requirement as described above.

**Modified Major with Environmental Earth Sciences as the secondary department** (in addition to the general rules in the Regulations section of this catalog.)

**Prerequisites:** As described above

**Required Courses:** four courses numbered 10 or above, at least one of which must be a Core Methods and Concepts course (EARS 30-59) and at least one of which must be a Quantitative Analysis or Advanced Topics course (EARS 60-79). At most one of these courses may come from a third department (neither the primary nor the secondary department); relevant courses in Geography, Environmental Studies, Engineering, Chemistry or Biology are described above.

**Modified Major with Environmental Earth Sciences as the primary department** (in addition to the general rules in the Regulations section of this catalog.)

**Prerequisites:** As described above

**Required Courses:** four courses numbered 10 or above, at least one of which must be a Core Methods and Concepts course (EARS 30-59) and at least one of which must be a Quantitative Analysis or Advanced Topics course (EARS 60-79). At most one of these courses may come from a third department (neither the primary nor the secondary department); relevant courses in Geography, Environmental Studies, Engineering, Chemistry or Biology are described above.

**Earth Sciences Honors Program**

A candidate for the Honors Program in Earth Sciences must satisfy the College requirements of at least a 3.0 (B) overall grade point average and at least a 3.0 (B) grade point average in the major at the beginning of senior year. Those students who a) enroll in and satisfactorily complete Earth Sciences 89, b) satisfactorily complete and submit a written senior thesis and c) have a 3.3 (B+) average or higher in the 8 courses constituting their major will earn Honors or, in appropriate cases, High Honors, in Earth Sciences at the end of senior year. High Honors will be granted only by vote of the Department faculty on the basis of overall academic performance including both classroom and independent work. Note: enrollment in Earth Sciences 89 in and of itself does not constitute admission to the Honors Program, nor does completion of a senior thesis guarantee the awarding of Honors.

**EARS - Earth Sciences - Undergraduate Courses**

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**EARS 1 - How the Earth Works**

Instructor: Kelly, Slotznick, Meyer

This course introduces the principles of physical geology by describing the Earth's components and analyzing the processes that control its evolution. Mountain ranges and deep sea trenches, volcanism and earthquakes, surficial and deep-seated geologic processes provide the evidence we will use to interpret the Earth's makeup and history. Earth resources, geologic hazards, and environmental protection will be discussed in connection with a variety of general geologic topics.

Distributive: Dist:SLA

**EARS 1.01 - Geology of New England and Surrounding Regions**

The continuous geological development of our continent over the past several billion years has played a significant role in influencing the character of agriculture, commerce, and transportation, the availability of mineral, energy, and water resources, and even the ecological communities that occupy this varied landscape. In this course we will develop an understanding of the geological history of a portion of the North American continent and its continental shelves, as a basis for understanding some of the natural controls that constrain our interaction with this landscape and that continue to modify it through a variety of geological processes. Field trips. Not open to students who have received credit for EARS 008.

Distributive: Dist:SCI
EARS 2 - Evolution of Earth and Life
Instructor: Strauss, Osterberg

The presence of life on Earth potentially makes it unique in this solar system. The reasons that life emerged, persisted, and evolved on Earth are tied to Earth's geochemical and geophysical processes, such as the rock cycle and carbon cycle, which have been active on Earth since its formation 4.5 billion years ago. By examining how the biosphere has interacted with key geochemical and geophysical processes over this time, this course investigates how the evolution of the biosphere and geosphere has been a synergistic process throughout the entire history of the Earth that continues today.

Distributive: Dist:SCI

EARS 3 - Elementary Oceanography
Instructor: Feng, Keller

Oceanography is one of the studies in which natural processes are investigated with interdisciplinary approaches by scientists of a wide range of specialties. Physical, chemical, biological and geological processes in the oceans and their interactions are studied in this course. Students will gain appreciation of the complexity of the ocean as a natural system and necessity of interdisciplinary to investigate it. Oceans as a source of resources, as a fundamental part of the global climate engine, as a book of Earth's environmental history, and as a bed of the origin of life are discussed. Use and abuse of ocean resources and associated environmental problems, such as ocean water pollution, over-fishing and whaling are also discussed.

Distributive: Dist:SCI

EARS 4 - Dinosaurs
Instructor: Peterson

Described under BIOL 6

Distributive: Dist:SCI

EARS 5 - Natural Disasters and Catastrophes
Instructor: Sonder

This course will examine several different kinds of natural hazards, including volcanic eruptions, earthquakes, floods, hurricanes, and meteorite impacts. We will attempt to understand the reasons for the occurrence of these events, the reasons for the wide variations in our ability to accurately predict them, and the role of the scientist in broader societal issues relating to disaster preparation, forecasting events, and damage and cost mitigation.

Distributive: Dist:SCI

EARS 6 - Environmental Change
Instructor: Hawley

This course will investigate the science of natural and human induced environmental change on a global scale. The Earth has never existed in a pristine balanced state, and an understanding of pre-industrial changes in the Earth's environment provides important information that we can use to interpret current environmental change. Topics that will be discussed include: the evolution of the atmosphere, global temperature variation, sea level change, atmospheric trace gases and global warming, stratospheric ozone, acid rain and tropospheric ozone, human migration and landscape development, and global catastrophes.

Distributive: Dist:SCI

EARS 6.05 - Modeling the Earth
Instructor: Morlighem

This course focuses on modeling the behavior of the Earth as a coupled system. Students will learn to represent physical, chemical, and biological processes in formal, algebraic fashion, and how to organize and create computer models that implement these expressions. Students will use the STELLA graphical modeling environment, which allows the construction of models with varying levels of complexity. Modeling skills will be developed and applied throughout the course, including lectures, homework, and exams. The modeling will focus on simulating natural processes in the Earth system, such as exchanges of mass and energy, and the course will provide the student with an understanding of how the various parts of the Earth system evolve and interact. The scientific method will be introduced, the students will learn about fundamental physical laws and principles governing the behavior of natural systems, and they will be exposed to various natural phenomena relevant to Earth-system dynamics.

Distributive: Dist:SLA

EARS 07.06 - First-Year Seminars in Earth Sciences
Instructor: Leavitt, Rhim

Life on Mars

EARS 8 - Carbon Sequestration: Opportunities and Challenges
Instructor: Sharma

Global warming and ocean acidification resulting from the rise in atmospheric carbon dioxide (CO2) are a serious threat to the modern civilization and future generations. A transition to a low carbon economy remains in distant future. Effective climate change mitigation requires urgent reductions of CO2 emissions and a portfolio of strategies for sequestering CO2. The intent of this course is to
introduce geochemical principles that are being investigated to sequester CO₂ already present in the atmosphere or that is released to the atmosphere by point sources such as coal-fired power plants. We will first focus on the scale of the problem and then study the science behind the proposed strategies that could reduce atmospheric carbon dioxide. The course will draw from readings of primary literature in the diverse fields of mineralogy, petrology, geochemistry, and oceanography. These will be augmented by weekly student-led discussions with researchers in these fields. The course will conclude with a general discussion of issues of scaling and environmental impacts of the CO₂ removal approaches and the way forward. Not open to students who have received credit for EARS 010.

**Distributive: Dist:SCI**

**EARS 9 - Earth Resources**

Instructor: Sharma

The over-arching goal of this course is to make students—many of them future leaders in their fields—keenly aware of how the foundation and progress of society are based on the utilization of the earth resources. The fact that such resources are finite and unevenly distributed around the globe has been a major driver for not only human exploration and innovation but also wars. Also, the exploitation of earth resources has profoundly altered the earth’s natural geochemical cycles with ramifications to our health, security, economy and well-being. We will discuss these issues along with the origin of Earth resources.

**Distributive: Dist:SCI**

**EARS 12 - Big Data Science in Hydrology**

Instructor: Renshaw

Technological advances that facilitate the routine collection of terabytes of data measuring Earth’s environment have resulted in the exponential growth of high-resolution hydrological digital databases spanning wide spatial and temporal dimensions. To take advantage of these new databases, hydrologists are increasingly using new tools developed for “big data” science to discover, manage, and analyze earth’s ever-changing hydrology. This course is an introduction to the methods and tools of big data science in hydrology, particularly environmental statistics and the R programming language, with application to understanding Earth’s hydrology at the local and regional scale. Topics include quantitative analysis of the hydrologic cycle, floods, droughts, and surface water quality. Prior computer programming experience is helpful, but not required.

**Distributive: Dist:TAS**

**EARS 13 - Introduction to Computational Methods in Earth Science**

Instructor: Keller

This course aims to provide students with a hands-on introduction to the use and analysis of large, open datasets in the Earth Sciences. Along the way, we will introduce (in lab) some of the basic concepts of programming, as code literacy is increasingly obligatory in Earth Science. Prior programming experience may be helpful, but is not required. After introducing some basic concepts and tools, each student will work with the instructor to find a real data analysis question that can be addressed (as a final project) using the techniques learned in class.

**Distributive: Dist:TAS**

**EARS 14 - Meteorology**

Instructor: Osterberg

Introduction to the science of the atmosphere, emphasizing weather and weather forecasting, but including atmospheric variations on all scales from tornadoes, through the Little Ice Age, to Snowball Earth. We begin by discussing the properties of air and a few basic physical principles that control all atmospheric phenomena. These principles enable us to understand weather systems and associated fronts, clouds, winds, and precipitation, and to forecast weather using simple visual observations, satellite data and supercomputers. They are also the basis for the global circulation of air, energy and water, as well as the restlessly changing, diverse climate zones of our planet. Labs will provide hands-on experience observing the weather, building and using simple meteorological instruments, interpreting network data and satellite images, and forecasting the weather in real time. Additional topics may include air pollution, deliberate and inadvertent weather and climate modification, aviation and marine weather, and atmospheric chaos.

**Distributive: Dist:SLA**

**EARS 15 - Earth's Climate - Past, Present and Future**

Instructor: Kelly

Understanding what drives climate change is one of the major scientific questions of the 21st century. Evidence for past (paleo) climate change provides essential information about Earth’s climate system and the potential for future change. In this course, we will investigate paleoclimate changes and the chemistry and physics of the modern climate system. We will explore the mechanisms that influence climate on various time scales and the projections for future change. Laboratory projects will focus on collecting and analyzing data from local sites to develop paleoclimate records.

**Distributive: Dist:SLA**
EARS 16 - Hydrology and Water Resources
Instructor: Renshaw
This course explores both the physical and technical dimensions of the Earth's surface water resources and water resource management to demonstrate that ensuring sustainable water resources requires not only a firm understanding of the physical-chemical characteristics of water, but also of its social arena. Focus is given to the array of environmental problems resulting from human impacts on water resources and contextualizes them both in terms of their physical underpinnings and in terms of social requirements driving the development of technical analyses. Topics include floods, droughts, domestic water supply, dams and dam removal, habitat degradation, snowmaking, and climate change. Weekly field studies of local streams and lakes are used to introduce hydrological field methods and to illustrate fundamental principles and phenomena. Field studies are complemented with technical analyses of water resources.
Distributive: Dist:TLA

EARS 17 - Analysis of Environmental Data
Instructor: Feng
Topics such as acid deposition, air and water pollution, water quality, acid mine drainage and climate change are used to introduce the fundamentals of environmental data analysis. Basic subjects include descriptive statistics, uncertainty, error propagation, hypothesis testing, regression, and experimental design. Advanced methods for spatial and time series data analysis are briefly introduced.
Prerequisite: One course in Earth Sciences and MATH 3 or permission of instructors.
Distributive: Dist:QDS

EARS 18 - Environmental Geology
Instructor: Feng
This course takes an interdisciplinary approach toward understanding the Earth's present and past environments as systems controlled by natural processes and impacted by human actions. Environmental issues, such as global climate change, acid rain, ozone depletion, and water resources and pollution, are discussed in this context. In the process of developing this understanding, students will gain skills in collecting, interpreting, and reporting scientific data. This course does not emphasize environmental policies, but instead the scientific knowledge and arguments behind them. However, case studies will allow students to gain appreciation of the complexity of scientific, social, cultural and political interactions surrounding local and global environmental issues and sustainability.
Prerequisite: Introductory course in Earth Sciences or a related field course recommended.
Distributive: Dist:SCI

EARS 19 - Habitable Planets
Instructor: Sharma
Is the Earth unique, or are there other planets in the universe which can support life? This question has been pondered for thousands of years, and humanity is now on the cusp of being able to answer this question. This course will examine the question of planetary habitability, focusing on the processes which made the Earth habitable, and the likelihood of finding other habitable planets in the universe. Topics to be covered include the creation of the elements, the formation of structure in the universe, planetary system formation, the habitability of Earth and other bodies in the solar system, the future habitability of Earth, and the prospects of finding habitable planets around other stars.
Cross-Listed as: ASTR 019
Distributive: Dist:SCI

EARS 28 - Macroevolution
Instructor: K. Peterson
Macroevolution focuses on the evolutionary process from the perspective of the species and through the lens of deep time. More specifically, it focuses on the issue of whether life is organized hierarchically, and if so, can selection occur at any/all of these other levels, in addition to the level of the organism. This course is especially well suited for discussion and question, as the definition of macroevolution, as well as its very existence, is under intense discussion by both microevolutionists and macroevolutionists alike. Topics covered include punctuated equilibrium, species-level selection, homology, and mass extinctions.
Cross-Listed as: BIOL 028 EARS 032
Distributive: Dist:SCI

EARS 31 - Paleobiology
The study of fossil flora, invertebrate and vertebrate fauna, and their utility in understanding ancient rock sequences of paleontologic or archaeologic significance. Emphasis is placed on the nature of the fossil record, the environmental context, and the evolutionary history of certain major groups of organisms, paleoecology, paleogeography, and the use of fossils for geologic dating and correlation. Stratigraphic principles are developed.
Prerequisite: One introductory level science course or its equivalent or permission of the instructor.
Distributive: Dist:SLA
EARS 32 - Macroevolution
Instructor: Peterson

Macroevolution focuses on the evolutionary process from the perspective of the species and through the lens of deep time. More specifically, it focuses on the issue of whether life is organized hierarchically, and if so, can selection occur at any/all of these other levels, in addition to the level of the organism. This course is especially well suited for discussion and question, as the definition of macroevolution, as well as its very existence, is under intense discussion by both microevolutionists and macroevolutionists alike. Topics covered include punctuated equilibrium, species-level selection, homology, and mass extinctions.

Cross-Listed as: BIOL 028
Distributive: Dist:SCI

EARS 33 - Earth Surface Processes and Landforms
Instructor: Palucis, Fame

This course is an introduction to geomorphology – the study of the mechanisms that shape the Earth’s surface. Students will learn about river, glacial, hillslope, and wind-driven processes, and the resulting landforms and landscapes they produce. We will also delve into how landscapes respond to and affect tectonics and climate, and the implications for understanding the history of the Earth’s surface and its future. The techniques and tools we use as geomorphologists range from direct observations to chemical, physical, mathematical, and isotopic approaches, all of which we will explore in this course. The processes we discuss are not confined to the Earth, and as such, we will also touch on the geomorphic evolution of other planetary bodies as well.

Not open to students who have received credit for GEOG 033.
Cross-Listed as: GEOG 17.01
Distributive: Dist:SLA

EARS 34 - Earth’s Biogeochemical Cycles
Instructor: Leavitt

This course is a survey of biogeochemical interactions among Earth’s crust, oceans, and atmosphere, including perturbations due to human activities. Particular attention is given to carbon, nitrogen, phosphorus, and sulfur biogeochemical cycles and the role of these cycles in applied environmental challenges including, for example, greenhouse warming of atmosphere from carbon dioxide and chlorofluorocarbons and the effects of inorganic and organic wastes in the marine and aqueous systems.

Prerequisite: CHEM 5 or 10 (may be taken concurrently) and one course from EARS 1-9 exclusive of EARS 7.

Distributive: Dist:SCI

EARS 35 - The Soil Resource
Instructor: Jackson

Soils are a critical natural resource; feeding our growing population depends fundamentally on soils; in fact, soils provide nutrients to all ecosystems. Agriculture and land management has increased soil erosion around the world, potentially influencing the history and fate of civilizations. In the modern era, this use is not sustainable; the physical and chemical degradation of soils far outpaces soil production. This course will explore the nature and properties of soils and examine how these processes occur in natural and human-influenced soils, and identify reasonable limits on what can influence the sustainable utilization of soils as a resource. We will begin by developing an understanding of the geologic, biologic, and chemical processes that lead to soil formation and the development of specific soil properties. The second portion of the course will examine the relationship between soils and underlying bedrock and overlying vegetation and the role of soils in ecosystems. The final section of the course will examine the situations in which soils are used to reduce the impact of human activities and the way in which humans can reduce their impact on soils: the importance of soils in septic tanks and leach fields; the use of soils as solid waste landfill caps and liners; the use of soils in the storage of hazardous wastes; and the conservation and management of soils.

Prerequisite: ENVS 2 or one course from EARS 1, EARS 2, EARS 3, EARS 4, EARS 5, EARS 6, EARS 8, EARS 9, or CHEM 5 and an advanced course from the environmental sciences or Earth Sciences; or permission of the instructor.
Cross-Listed as: ENVS 079
Distributive: Dist:SLA

EARS 36 - Astrobiology
Instructor: Slotznick

This course will explore the nascent field of astrobiology—study of life in the universe. Students will be introduced to the various research aspects in the fields of biology, chemistry, geology, planetary science, and astronomy that contribute to our current understanding of astrobiology. Scientific hypothesis testing and evolution will be a course focus as technological innovation continues to shape the field. Together we will work to address the questions: How does life begin and evolve? Is there life beyond Earth and, if so, how can we detect it?

Distributive: Dist:SCI

EARS 37 - Marine Geology
Instructor: Pilcher
This course investigates the geology, processes, and paleoarchives hidden beneath the world’s oceans. The course material is necessarily broad, covering marine geography, plate tectonics, active and passive margins, coastal processes, ocean processes, sediment processes, and climate interactions. We will investigate a few specific concepts (case studies) in detail to relate the course material to current events and the recent scientific literature. A key objective of this course is for you to use case studies to practice how to critically evaluate and synthesize published marine geological data, and to construct, in writing, sound, logical, succinct arguments based on your analyses. We do not have a lab for this course, but I will introduce you to marine geological field methods throughout the term.

Prerequisite: One course from EARS 1, EARS 2, EARS 3, EARS 4, EARS 5, EARS 6, EARS 8, EARS 9 or permission of the instructor.

Distributive: Dist:SCI

**EARS 38 - Introduction to Sedimentary Systems**

Instructor: Strauss

This course considers the evidence, preservation, and temporal record of environmental change as preserved in sedimentary rocks. The aim is to learn how to interpret the sedimentary record through an emphasis on depositional models, both modern and ancient – these will be examined in detail with an eye toward interpretation of depositional processes and paleoenvironmental analysis. Short field exercises and group projects are a significant part of this course and are designed to improve your ability to make observations and cogently describe and interpret sedimentary structures and successions in the field.

Prerequisite: One course from EARS 1, EARS 2, EARS 3, EARS 4, EARS 5, EARS 6, EARS 8, EARS 9 or permission of the instructor.

Distributive: Dist:SCI

**EARS 40 - Materials of the Earth**

Instructor: Sonder

This course will prepare students for the Earth Sciences FSP and for further study in Earth Sciences. It consists of two integrated modules, structural geology and earth materials. In the Structural Geology component, students will learn how to observe and analyze the arrangement of rock units in order to gain insight into the chronology of events occurring in the geological past and the implications for kinematics (e.g., plate tectonic history) and dynamics (e.g., origin and evolution of tectonic forces). Practical skills include making and analyzing geological maps, constructing cross-sections, and analyzing three-dimensional geological data and geometries. In the Earth Materials component, students will develop an understanding of the nature and formation of solid-earth's raw materials in the context of earth's major tectonic, petrologic, hydrologic and biogeochemical systems. This will involve an understanding of the nomenclature of materials and their textures, and systems of classification, the physical and chemical properties of earth materials, associations and occurrences, and an understanding of processes of formation of earth materials resources. Field (hand-and outcrop-scale) and petrographic microscope-based laboratory procedures will be introduced. Field excursions.

Prerequisite: One course from EARS 1, EARS 2, EARS 3, EARS 4, EARS 5, EARS 6, EARS 8, EARS 9. CHEM 5 recommended.

Distributive: Dist:SLA

**EARS 45 - Field Methods: Techniques of Structural and Stratigraphic Analysis**

Instructor: Kelly, Keller, Osterberg, Meyer

The study of geologic phenomena and field problems associated with the solid Earth. The analysis of outcrop evidence of the structural, stratigraphic, and geomorphic history of selected regions. The integrated use of geologic instruments, topographic maps, aerial photography, and satellite imagery to enable geomorphic and structural analysis. Because of the nature of this course, class meetings, assignments, readings, and reports are scheduled irregularly.

Prerequisite: EARS 40. Must be taken concurrently with EARS 46 and EARS 47.

Distributive: Dist:SLA

**EARS 46 - Field Methods: Environmental Monitoring**

Instructor: Osterberg, Strauss, Renshaw, Sonder, Meyer

The study of surface processes and products through the integration of geomorphic, hydrologic, and environmental chemistry techniques. The analysis of field evidence of the interaction between the atmosphere, hydrosphere, and lithosphere at the Earth's surface. The integrated use of geologic instruments, topographic maps, aerial photography, and satellite imagery to enable geomorphic and environmental assessment. Because of the nature of this course, class meetings, assignments, readings, and reports are scheduled irregularly.

Prerequisite: EARS 40. Must be taken concurrently with EARS 45 and EARS 47.

Distributive: Dist:SLA

**EARS 47 - Field Methods: Resource and Earth Hazards Assessment**

Instructor: Sonder, Strauss, Slotznick, Meyer

Field studies of rock associations, geologic structures, active and fossil volcanism, and mineral resources in the
western United States. The interrelationship between upper crustal processes and earth materials in the development of landforms and landscapes, and rock and mineral provinces. The integrated use of geologic instruments, topographic maps, aerial photography, and satellite imagery to enable resource assessment. Because of the nature of this course, class meetings, assignments, readings, and reports are scheduled irregularly. EARS 45, EARS 46, and EARS 47, the Earth Sciences Off-Campus Study Program (D.F.S.P.), require considerable logistical planning for proper execution. It is therefore imperative that Earth Sciences majors planning to be enrolled in this program register in the Off-Campus Programs Office (44 N. College Street, Hinman 6102) no later than February 1 of the sophomore year. All prerequisites for EARS 40 must be met by the end of spring term of the sophomore year; failure to complete prerequisites may cause a student to be denied permission to participate in the Off Campus Program. Enrollment may be limited. Preference given to Earth Science majors.

Prerequisite: EARS 40. Must be taken concurrently with EARS 45 and EARS 46.

Distributive: Dist:SLA

EARS 51 - Mineralogy and Earth Processes
Instructor: Slotznick
Crystallography, mineral chemistry, and physical properties of the principal rock forming minerals, especially the silicates. In the laboratory, technique of hand identification, the petrographic microscope, and X-ray diffraction are mastered. The course culminates with three case studies that relate mineralogic change to the geologic cycle, such as in regional metamorphism during mountain building; the origin of petroleum; and soil formation.

Prerequisite: EARS 40 and CHEM 5 or permission of instructor.

Distributive: Dist:SLA

EARS 52 - Structural Geology
Instructor: Sonder
This course examines various aspects of regional-scale geologic processes and structures, or tectonics. Topics of study include the history of relevant geologic thought, rock deformation, the origin and evolution of mountain belts, the growth of continents and ocean basins, the causes of earthquakes and volcanic eruptions, and tectonic geomorphology. Students learn that tectonic analysis requires the synthesis of a wide range of information in an attempt to reconstruct the history and driving dynamics of the large-scale, geologic architecture of a particular region. Format: faculty- and student-led presentations, and discussion of selected articles from the peer-reviewed literature.

Prerequisite: EARS 40 or equivalent or permission of the instructor.

Distributive: Dist:SLA

EARS 58 - Stratigraphy and Sedimentary Petrology
Instructor: Slotznick
This is a combined lecture, laboratory, seminar, and field-based course focused on the origin, diagenetic modification, and depositional history of sedimentary rocks. The course will cover theoretical and practical aspects of sedimentary petrology and stratigraphy that are critical to understanding the record of ancient climate and environments, as well as the tectonic development of sedimentary basins. In addition to studying hand specimens and utilizing standard petrographic microscopy, we will also introduce some of the other major instrumental methods used in the field today (e.g., isotope systems, provenance analyses, X-ray diffraction, etc...). This course will culminate in an optional multi-day field excursion to a sedimentary basin to complete a field-based research project.

Prerequisite: EARS 40, 45, 46, and 47. EARS 38 is recommended.

Distributive: Dist:SLA

EARS 59 - Igneous and Metamorphic Petrology
Instructor: Keller
An overview of high-temperature geochemistry with particular emphasis on the processes that form igneous and metamorphic rocks. We will learn how a combination of rock fabric, texture, mineralogy, phase equilibria, and chemical composition are used to investigate the origin and evolution of rocks. We will also examine the relationship between rock forming and tectonic processes and the origin of the Earth's crust. The course consists of lectures and laboratory; the latter includes examination of a large number of rocks in hand-samples and their corresponding thin-sections. Additionally, we will have a week-end field trip to the metamorphosed igneous rocks of the Adirondack Mountains.

Prerequisite: EARS 40 or permission of instructor.

Distributive: Dist:SLA

EARS 62 - Geochemistry
Instructor: Sharma
The intent of this course is to further our understanding of the Earth by utilizing the principles of chemistry. We will place particular emphasis on how to obtain quantitative information about the processes controlling the composition of Earth's mantle, crust, ocean and atmosphere. We will examine how abundances of elements and isotopes and chemical equilibria can provide such information.
Prerequisite: CHEM 5 and CHEM 6 or equivalent or permission of the instructor.

Distributive: Dist:SCI

**EARS 64 - Geophysics**

Instructor: Sonder

Geological methods (mapping and analysis of samples collected at the earth's surface) tell us much about processes occurring near the earth's surface, but very little about deeper parts of the earth. Almost all surface rocks come from depths of no more than a few tens of kilometers, yet 99% of the Earth is deeper than that! How can we learn about parts of the Earth to which there is no hope of ever traveling and from which we have no samples? Geophysics gives us the tools. In this course we will use the principles of gravity, magnetism, seismology, and heat transfer to "journey to the center of the Earth." Laboratory sessions will be focused more locally; we will collect geophysical data from the Hanover area and interpret them to learn about the rocks hidden below the Earth's surface.

Prerequisite: MATH 3 or permission of the instructor.

PHYS 3 (or PHYS 13) and MATH 8 are helpful but not required.

Distributive: Dist:SLA

**EARS 65 - Remote Sensing**

Instructor: TBD

Remote sensing involves the acquisition of information about the earth from airborne and satellite sensors. Both vector (GIS and GPS) and raster (image) data will be treated with an emphasis on their interpretation for various geographic and earth science applications. A significant part of the course will be devoted to practical exercises; there will be a final project involving the computer processing and interpretation of these data.

Prerequisite: One course from EARS 1, EARS 2, EARS 3, EARS 4, EARS 5, EARS 6, EARS 8, EARS 9, or GEOG 3.

Cross-Listed as: GEOG 051

Distributive: Dist:TAS

**EARS 66 - Hydrogeology**

Instructor: Renshaw

This course is an introduction to groundwater and the technical analyses of groundwater resources. A series of case studies are used to introduce the physical, chemical, and technical aspects of groundwater budgets, groundwater resource evaluation (including well hydraulics and numerical modeling), and the transport and fate of contaminants. The case studies also allow students to gain insight into the complexity of sustainable groundwater resource management through exploration of the ideas of safe yield, surface-groundwater interactions, and water quality standards.

Prerequisite: MATH 3 or permission of the instructor.

Distributive: Dist:SCI

**EARS 66.01 - Environmental Transport and Fate**

Introduction to movement and transformation of substances released into the natural environment. Fundamentals of advection, dispersion, and reaction. Aggregation and parameterization of various mixing processes leading to dispersion at larger spatial and temporal scales. Importance of inhomogeneity, anisotropy, and stratification in natural media. Basic principles are illustrated by application to atmospheric, ground water, river, estuarine, coastal, and oceanic pollution problems. Case studies include urban smog, acid rain, Chernobyl fall-out, and stratospheric ozone depletion.

Cross-Listed as: ENGS 043

Distributive: Dist:TAS

**EARS 67 - Environmental Geomechanics**

Instructor: Palucis

The study of our Earth environment requires an understanding of the physical processes within and at the surface of the Earth. This course explores the physics of key Earth surface processes, including volcanic eruptions, landslides and debris flows, and turbulent flows in rivers and the sea. Advanced quantitative concepts are developed through applications in geomorphology, sedimentology, oceanography, and volcanology. Format: faculty lectures, challenging weekly problem sets, independent project, final exam.

Prerequisite: MATH 23 or permission of the instructor.

Distributive: Dist:SCI

**EARS 70 - Glaciology**

Instructor: Hawley

This course explores the unique nature and scientific importance of glaciers, ice sheets, snow, and frozen ground in the Earth system, collectively referred to as the Cryosphere. We explore how glaciers work, and how they interact with the climate system. We investigate how ice behaves from the molecular scale to the continental scale and compare and contrast this behavior to that of snowpacks. The practical skills and techniques used by glaciologists to study glaciers and ice sheets are considered along with transferable skills in advanced quantitative data analysis, including time series analysis and computational modeling of physical processes, with emphasis on practical application to real data.
Prerequisite: PHYS 3 and MATH 3, or equivalent. EARS 33 is recommended.

Distributive: Dist:QDS

EARS 71 - River Processes and Watershed Science
Instructor: Magilligan
Role of surface water and fluvial processes on landscape formation; magnitude and frequency relationships of flood flows; soil erosion, sediment transport, and fluvial landforms. This course examines the links between watershed scale processes such as weathering, denudation, and mass wasting on the supply of water and sediment to stream channels on both contemporary and geologic timescales and further evaluates the role of climate change on the magnitude and direction of shifts in watershed and fluvial processes. Not open to students who have received credit for GEOG 035.
Prerequisite: EARS 16 or EARS 33 or BIOL 23 or permission of the instructor.
Cross-Listed as: GEOG 62.01
Distributive: Dist:SLA

EARS 73 - Environmental Isotope Geochemistry
Instructor: Feng
This course examines the use of stable, radiogenic and cosmogenic isotopes as tools to study Earth processes, particularly processes that are environmentally important. The theory of isotope principles are introduced followed by their applications in investigating Earth's systems. The main applications include studies of climate change, hydrological processes, biogeochemical cycles, Earth's early environment, origin of life, erosion and mountain building. Labs provide hands on opportunities for students to learn mass spectrometry and isotopic data collection and interpretation.
Prerequisite: CHEM 5 or permission of instructor.
Distributive: Dist:SLA

EARS 74 - Soils and Aqueous Geochemistry
Instructor: Jackson
An overview of the basic principles that govern soil chemistry, with particular emphasis on the composition and mineralogy of soils, the chemical processes that function within soils, the reactions that describe the fate of elements (both nutrients and contaminants) within soils and soil solutions. The majority of the course will cover equilibrium soil processes. Occasional field trips will concentrate on the collection of soils and their characterization.
Prerequisite: CHEM 5 and EARS 62 or equivalents, or permission of instructor.

Distributive: Dist:SCI

EARS 75 - Quaternary Paleoclimatology
Instructor: Kelly
Evidence for past (paleo) climate change provides essential information about Earth's climate system and the potential for future change. This course focuses on understanding paleoclimate changes during the Quaternary Period such as glacial-interglacial variability, rapid climate changes, and the recent "stable" climatic conditions of the Holocene epoch. We will rely on published scientific data to examine these various topics and critically evaluate hypotheses for mechanisms of climate change.
Prerequisite: EARS 15 or ENGS 172 or equivalent or permission of the instructor.
Distributive: Dist:SCI

EARS 76 - Advance Hydrology
A survey of advanced methods used to analyze the occurrence and movement of water in the natural environment. The watershed processes controlling the generation of runoff and streamflow are highlighted, and used to explore the transport and fate of sediment and contaminants in watersheds. Throughout the course the ideas and concepts are explored through the primary literature, with emphasis given to methods of observation, measurement, data analysis, and prediction.
Prerequisite: MATH 3, and one of EARS 16 or EARS 33 or BIOL 53 or ENGS 43 or permission of instructor.
Cross-Listed as: ENGS 042
Distributive: Dist:TAS

EARS 77 - Environmental Applications of GIS
Instructor: Chipman
This course uses geographic information science (GIS) to analyze environmental systems. Students will learn advanced GIS techniques such as topographic analysis, spatial modeling, spatial statistics, remote sensing, and spatiotemporal data analysis. These methods will be explored through a wide variety of applications, including watershed hydrology, water quality, vegetation, land use/land cover, climate, wildlife ecology, and natural hazards. In lectures, laboratory exercises, and class projects, students will gain experience in designing and implementing GIS-based solutions to environmental problems.
Prerequisite: GEOG 50 or GEOG 51/EARS 65, or permission of the instructor.
Cross-Listed as: GEOG 077
Distributive: Dist:TLA
EARS 78 - Climate Dynamics
Instructor: Osterberg
This course focuses on the physics that govern the circulation of the atmosphere and ocean, and the dominant patterns of climate variability that we observe today. We explore global-scale atmospheric dynamics that explain why the atmosphere behaves as observed. We also use the scientific literature to investigate the signature and causes of regional ocean-atmosphere variability including the El Nino-Southern Oscillation, monsoons, and North Atlantic Oscillation, and the influence of climate change on these patterns.
Prerequisite: Math 8 or equivalent and EARS 14 or EARS 15 or equivalent or Instructor Permission.
Distributive: Dist:SCI

EARS 79 - Special Topics

EARS 79.01 - Special Topics Seminar
EARS 80.04 - Special Topics - Data Analysis
Instructor: Morlighem
Offered occasionally to provide a course in a topic which would not otherwise appear in the curriculum.

EARS 80.02 - Astrobiology
This course will explore the nascent field of astrobiology—study of life in the universe. Students will be introduced to the various research aspects in the fields of biology, chemistry, geology, planetary science, and astronomy that contribute to our current understanding of astrobiology. Scientific hypothesis testing and evolution will be a course focus as technological innovation continues to shape the field. Together we will work to address the questions: How does life begin and evolve? Is there life beyond Earth and, if so, how can we detect it?
Distributive: Dist:SCI

EARS 80.03 - Technical Computation in the Earth Sciences
Driven by increasing data availability, processing power, and model sophistication, scientific or technical computation has become increasingly central to basic research in the Earth Sciences. This course aims to provide Earth Science students with a working introduction to scientific computation including (1) hands-on experience applying common, widely applicable sampling and inversion algorithms to classic Earth Science problems; (2) an awareness of the factors limiting efficiency and scalability when working with large datasets; and (3) an introduction to some of the tools and best practices of software engineering used to produce more robust, maintainable software.
Distributive: Dist:SCI

EARS 86 - Special Projects
Advanced study in a particular field of the earth sciences under the supervision of a faculty advisor. Conclusions from the project must be submitted in a suitable oral or written report. Does not satisfy the culminating experience requirement.

EARS 87 - Special Projects: Senior Culminating Experiences
Instructor: Chair
Under the supervision of a faculty advisor, serves in satisfaction of the culminating experience requirement. Usually a 1-term commitment that does not carry eligibility for Honors in the major. Conclusions from the project must be submitted in a suitable oral or written report. Requires attendance at weekly earth sciences research talks during Winter and Spring terms of the senior year.
Prerequisite: Sufficient training in the area of the project and faculty approval.

EARS 88 - The Earth System
Instructor: Morlighem, Renshaw
A culminating experience for seniors choosing not to pursue independent research, offered concurrently with EARS 201. We review regional geology of the Appalachians in the field, and then review key components of the Earth System, including the origin of our planet and the origin of life, plate tectonics, atmospheric and ocean circulation, Earth surface processes, and environmental change. Format: local field trips, faculty- and student-led presentations, and discussion of selected articles from the peer reviewed literature.
Prerequisite: Earth Science major and fourth-year standing.
Distributive: Dist:SLA

EARS 89 - Thesis Research I
Instructor: Chair
Research related to completion of a senior thesis. The initiative to begin a senior thesis project should come from the student, who should consult an appropriate faculty member. Conclusions from the research must presented in both written and oral form. Attendance at weekly earth sciences research seminars is required during Winter and Spring terms. Both EARS 89 and EARS 90 may be taken for course credit, but only one may count toward the major.
Students should register for EARS 89 during fall or winter of their senior year; if they desire a second course credit for thesis work, they should register for EARS 90 in a subsequent term. They may continue with their thesis research into a third term but cannot register for a third course credit. Normally a grade of “ON” (ongoing) will be
given at the end of the term in which they registered for EARS 89; a final grade will replace the “ON” upon successful completion of the senior thesis. Serves in satisfaction of the culminating experience requirement.  
Prerequisite: permission of a faculty research advisor.

**EARS 90 - Thesis Research II**

Instructor: Chair  
Continuation of research related to completion of a senior thesis. Students who have previously registered for EARS 89 register for this course. They may continue with their thesis work into a third term, but cannot register for a third term of course credit. Attendance at weekly earth sciences research seminars is required during Winter and Spring terms.

Students are awarded one course credit for successful completion of this course. A final grade will replace the “ON” for both EARS 89 and EARS 90 upon successful completion of the senior thesis.

**EARS 91 - Science Communication**

Instructor: Chair  
This course focuses on the skills required to communicate science, in both written and oral form. Students in this course must be completing a senior thesis or cumulating independent project. Students will perform short writing and presentation exercises, discuss issues related to good writing and presenting, and discuss and practice strategies for giving constructive comments to their peers as they review and critique one another’s products. Readings from course texts and peer reviewed literature on science communication will be discussed. This course focuses on the skills required to communicate science, in both written and oral form. Students in this course must be completing a senior thesis or cumulating independent project. Students will perform short writing and presentation exercises, discuss issues related to good writing and presenting, and discuss and practice strategies for giving constructive comments to their peers as they review and critique one another’s products. Readings from course texts and peer reviewed literature on science communication will be discussed. A student may take either EARS 90 or 91, but not both. Neither EARS 90 nor 91 count toward the requirements of the major.

Prerequisite: EARS 87 or 89 or equivalent (may be taken concurrently). A student may take either EARS 90 or 91, but not both.

**EARS 179.1 - Special Topics Seminar**

**Economics**

Chair: Andrew A. Samwick  
Vice Chair: James D. Feyrer


*To view Economics courses, click here* (p. 248).

**Requirements for the Major**

**Prerequisites:** ECON 1 and ECON 10, with an average grade no lower than C, and MATH 3. A student who fails to achieve the minimum grade average for the prerequisites may, with the permission of the vice chair, substitute grades in ECON 21 and ECON 20 for those in ECON 1 and ECON 10, respectively. Another statistics course may be substituted for ECON 10 with permission of the vice chair. Newly declared Econ Majors who have not previously satisfied this requirement must take Econ 1.

**Requirements:** Nine courses in addition to the prerequisites, with a GPA for these nine courses of no less than 2.0. The nine courses must include the following:

1. ECON 20, ECON 21, and ECON 22
2. A culminating experience class and its prerequisites. This implies choosing a 3-course sequence from among the following:
   a. ECON 62, with prerequisites ECON 32 and ECON 29
   b. ECON 64, with prerequisites ECON 24 and either ECON 27 or ECON 39
   c. ECON 65, with prerequisites ECON 25 and ECON 35
   d. ECON 66, with prerequisites ECON 26 and ECON 36
   e. ECON 67, with prerequisites ECON 27 and either ECON 24 or ECON 28 or ECON 37
   f. ECON 68, with prerequisites ECON 28 and ECON 38
   g. ECON 69, with prerequisites ECON 29 and ECON 39
   h. Honors via the 80-81-82 sequence (see below)
3. Three additional ECON courses, at least two of which must be numbered between 23 and 69  
Notes: ECON 2 and ECON 5 may not be counted toward fulfillment of the major requirement.

**Requirements for the Modified Major**

The modified major is intended to fit the needs of students who have a definite interest in economics but are interested also in studying some specific problem or topic that falls partly in the field of economics, the study of which
depends also upon courses in related fields, e.g., mathematics or other social sciences. Each student’s program must be approved by the vice chair of the department (who consults the curriculum committee) no later than fall of senior year; this approved program of courses constitutes the major. Note that the department website provides examples of several “pre-approved” modified majors that meet the guidelines.

**Prerequisites**
- ECON 1 and ECON 10, with an average grade no lower than C, and MATH 3. A student who fails to achieve the minimum grade average for the prerequisites may, with permission of the vice chair, substitute grades in ECON 21 and ECON 20 for those in ECON 1 and ECON 10, respectively. Another statistics course may, in certain instances, be substituted for ECON 10 with permission of the vice chair. Newly declared Econ modified majors who have not previously satisfied this requirement must take ECON 10.

**Requirements**
1. A unified, coherent program of at least ten courses is required, of which at least six courses must be in economics (in addition to ECON 1, ECON 10 and MATH 3) and four courses in a field or fields related to the special topic approved by the department vice chair. The GPA for the six courses in Economics must be no less than 2.0. The additional courses in a field outside of economics must be chosen from those satisfying the major of the department offering the course.

2. The six courses in economics must include the following:
   a. ECON 20, ECON 21, and ECON 22
   b. A culminating experience class and its prerequisites. This implies choosing a 3-course sequence from among the following:
      i. ECON 62, with prerequisites ECON 32 and ECON 29
      ii. ECON 64, with prerequisites ECON 24 and either ECON 27 or ECON 39
      iii. ECON 65, with prerequisites ECON 25 and ECON 35
      iv. ECON 66, with prerequisites ECON 26 and ECON 36
      v. ECON 67, with prerequisites ECON 27 and either ECON 24 or ECON 28 or ECON 37
      vi. ECON 68, with prerequisites ECON 28 and ECON 38
      vii. ECON 69, with prerequisites ECON 29 and ECON 39

**Requirements for Another Major Modified with Economics**

**Prerequisites**
- ECON 1 and ECON 10, with an average grade no lower than C, and MATH 3. A student who fails to achieve the minimum grade average for the prerequisites may, with the permission of the vice chair, substitute grades in ECON 21 and ECON 20 for those in ECON 1 and ECON 10, respectively. Another statistics course may, in certain instances, be substituted for ECON 10 with permission of the vice chair.

**Requirements**
A unified, coherent program of at least four courses in economics in addition to the prerequisites, with a GPA of no less than 2.0. The four courses must contain ECON 21, ECON 22, and two additional classes numbered between 20 and 69.

**Economics Minor**

**Prerequisites**
- ECON 1 and ECON 10, with an average grade no lower than C, and MATH 3. A student who fails to achieve the minimum grade average for the prerequisites may, with the permission of the vice chair, substitute grades in ECON 21 and ECON 20 for those in ECON 1 and ECON 10, respectively. Another statistics course may be substituted for ECON 10 with permission of the vice chair. Newly declared Econ minors who have not previously satisfied this requirement must take ECON 10.

**Requirements**
Six courses in addition to the prerequisites, with a GPA for these six courses of no less than 2.0. No courses can be counted toward both a major and a minor. The six courses must include the following:

1. ECON 20, ECON 21, and ECON 22
2. A culminating experience class and its prerequisites. This implies choosing a 3-course sequence from among the following:
   a. ECON 62, with prerequisites ECON 32 and ECON 29
   b. ECON 64, with prerequisites ECON 24 and either ECON 27 or ECON 39
   c. ECON 65, with prerequisites ECON 25 and ECON 35
   d. ECON 66, with prerequisites ECON 26 and ECON 36
   e. ECON 67, with prerequisites ECON 27 and either ECON 24 or ECON 28 or ECON 37
   f. ECON 68, with prerequisites ECON 28 and ECON 38
   g. ECON 69, with prerequisites ECON 29 and ECON 39
   h. Honors via the 80-81-82 sequence (see below)

**Transfer Credit**

Upon approval by the Vice Chair, a maximum of two course credits for work taken elsewhere may be counted toward the economics major, including prerequisites. For an economics modified major or economics minor, only one economics course may be transferred, while no economics courses may be transferred for another major modified with economics. In the case of a major, modified major, or minor, the culminating experience course and its two prerequisites are required to be taken at Dartmouth. ECON 20 taken elsewhere may not be allowed to be transferred. It is recommended that transfer credit be sought mainly for courses not regularly offered by the Department. Transfer credit will only be accepted from respected degree-granting institutions of higher education. Only courses requiring the equivalent of ECON 1 as a prerequisite will be credited toward the fulfillment of a major, modified major, or minor. Students
contemplating taking major, modified major or minor courses elsewhere should thus consult the Vice Chair well in advance, to assure that appropriate transfer credits will be accepted.

Economics Honors Program

The Honors Program in Economics provides qualified students with several different pathways to graduating with 'Honors in Economics' or with 'High Honors in Economics,' each of which are outlined below.

To be eligible for the Program, a student must have a grade point average of at least 3.3 in courses counting toward the major (excluding ECON 1, ECON 10, and MATH 3), and an overall grade point average of at least 3.0. Additionally, in order to be eligible for 'High Honors,' a student must take ten major courses (beyond prerequisites), rather than just the nine courses required for a standard or 'Honors' major.

Majors enrolled in a culminating experience class whose research papers for that course are deemed of exceptional merit by the instructor, and who are otherwise eligible for the Program, shall be granted 'Honors in Economics' with no additional coursework necessary. No more than two students per section may be granted 'Honors' in this way without a vote of the department. Students may subsequently enroll in ECON 87 and extend their research from the culminating experience course in order to be eligible for 'High Honors.' Failure to enroll in or to complete ECON 87 will not forfeit the original 'Honors' designation. Additional students meeting requirements for the Program whose major paper in their culminating experience course is considered to have excellent potential to develop further into a thesis may also be invited to enroll in ECON 87 to become eligible for either 'Honors' or 'High Honors.'

An additional method of earning 'Honors' is to complete the ECON 80-81-82 sequence with an average grade of B+ and having received a grade of A- or better in each of the prerequisite classes (i.e. ECON 20, ECON 21 and ECON 22). The instructors of this sequence may additionally recommend that students who have done such outstanding work in these courses that it would achieve the 'Honors' designation by the method described above be granted 'High Honors' by vote of the Department, provided the student has completed ten major courses (beyond prerequisites). Note that successful completion of this sequence may take the place of 3-course culminating experience sequence described above in the regular major section.

A final, more traditional method of achieving 'Honors' or 'High Honors' is by initiating a research project in ECON 85 and then writing an Honors thesis (ECON 87) in the senior year. Prior to enrolling in ECON 85 or ECON 87, the student must have the written approval of the vice chair and of a faculty member in the economics department who is willing to act as an adviser. The adviser would usually be a professor whose own research interests lie in the area in which the student wants to work. Students following this path will be expected to have taken all courses relevant to their topic prior to enrollment in ECON 85.

Both regular majors and modified majors who wish to enroll in ECON 85 will be expected to have taken all courses relevant to their topic prior to enrollment. For those enrolling in ECON 87, an average grade of B+ (3.33) or better in ECON 85 and ECON 87, or the culminating experience course and ECON 87 for that approach to developing the Honors thesis, will entitle the student to graduate with 'Honors in Economics.' A vote of the Department is necessary to achieve 'High Honors in Economics,' along with one additional major course beyond those required for the standard or 'Honors' major. The Department will consider the student’s performance on the thesis and his or her record in Economics courses in awarding 'High Honors.'

ECON - Economics Courses

To view Economics requirements, click here (p. 246).

ECON 1 - The Price System: Analysis, Problems, and Policies

Instructor: Anderson, Curtis, Petre, Ramos-Toro

Emphasis will be placed on problems and policies of current interest as they relate to resource use and the distribution of income and output. Students will receive an introduction to the theory of supply and demand in both product and factor markets in order to examine selected topics drawn from such areas as industrial organization and antitrust policy, labor economics, international trade, economic development, agriculture, urban problems, poverty and discrimination, public sector economics, and environmental problems.  

Distributive: Dist:SOC

ECON 2 - Economic Principles and Policies

Instructor: Blanchflower

This is a general survey course for students who have had no previous college level economics and who do not plan to take further economics courses. It is divided between microeconomic concepts-supply and demand, labor and capital markets, tax incidence, comparative advantage, international trade, and benefit-cost analysis-and macroeconomic issues such as economic growth, unemployment inflation, national income and product accounting, the banking system, and monetary and fiscal policy. Applications to current policy issues will be
emphasized throughout. ECON 2 may be taken under the Non-Recording Option (NRO). It does not count towards the major or minor.

Prerequisite: Students who have previously taken ECON 1 or who have been exempted from ECON 1 at matriculation may not enroll in ECON 2. Completion of ECON 2 does not, however, preclude subsequent enrollment in ECON 1.

Distributive: Dist:SOC

ECON 5 - Adam Smith and Political Economy
Instructor: Clark

The eighteenth-century Scottish philosopher Adam Smith was one of the founders of "political economy," the study of the interrelationship between society, government, and the economy. This course focuses on Smith's major ideas through his two important works, *The Theory of Moral Sentiments* and *The Wealth of Nations*, and deals with such topics as the origins and consequences of economic growth, and the role of government in a commercial society.

Cross-Listed as: GOVT 86.25
Distributive: Dist:SOC; WCult:W

ECON 10 - Introduction to Statistical Methods
Instructor: Agha, Cascio

This course introduces the student to the basic concepts and methods of statistics. It covers descriptive statistics and inference (estimation and hypothesis testing) for a single variable and for two variables. The probability theory required for these topics will be developed.

Because of the large overlap in material covered, no student may receive credit for more than one of the courses ECON 10, ENVS 10, GOVT 10, LING 10, MATH 10, PSYC 10, QSS 15, or SOCY 10.

Prerequisite: MATH 1 (or placement into Math 3 or a higher-level calculus course). ECON 1 recommended
Distributive: Dist:QDS

ECON 15 - Political Economy of China
Instructor: Welborn

This course examines how politics, economics, and culture have shaped the modern Chinese economic policy. Course topics include the Mao era, the pathologies of socialism and central planning, and the post-Mao transition to the market. Special emphasis will be placed on how "capitalism with Chinese characteristics" affects innovation, entrepreneurship, and law. Students will be graded on class participation as well as original research.

Prerequisite: ECON 1
Distributive: Dist:INT or SOC

ECON 16 - Political Economy of Regulation
Instructor: Welborn

This course examines the history, politics and economics of market regulation in the United States. Class discussions will focus on the arguments for and against state intervention in the market. We will also explore the meaning of "market failure" and "government failure" in the context of financial markets, transportation, the environment, health care, and public utilities. Special emphasis will be placed on how regulation affects prices and why regulated firms may demand regulation. Students will be graded on class participation as well as original research.

Prerequisite: ECON 1
Distributive: Dist:SOC

ECON 17 - Technological Progress and the Entrepreneurial Economy

The course examines technological invention and innovation and the path of technological progress and economic growth. Readings and discussion will develop understanding of the relation of new technology to science and cultural evolution and will describe the roles played, within economic and political systems, by inventors, entrepreneurs, companies, and finance when, from needs and opportunities, technologies emerge as creative new combinations.

Prerequisite: ECON 1
Distributive: Dist:SOC

ECON 20 - Econometrics
Instructor: Chyn, Lewis, Mello, Zitzewitz

Econometrics is the statistical analysis of economic data. This course focuses on regression analysis (specification, estimation, and hypothesis testing) and problems and pitfalls in its application in economics. The course involves extensive use of the statistical program STATA and will enable students to implement their own empirical research projects in preparation for the culminating experience in the economics major.

Prerequisite: ECON 10 and MATH 3 (or MATH 8 or MATH 11 or MATH 12 or MATH 13)
Distributive: Dist:QDS

ECON 21 - Microeconomics
Instructor: Doyle, Gustman, Luttmer, Petre

This course is a study of the pricing and allocation process in the private economy. Topics include the theories of demand and production, and the determination of prices and quantities for commodities and factors of production in competitive and noncompetitive markets. Applications of
the theory and its implications for empirical analysis are also considered.

Prerequisite: ECON 1 and MATH 3 (or MATH 8 or MATH 11 or MATH 12 or MATH 13)

Distributive: Dist:SOC

ECON 22 - Macroeconomics
Instructor: Comin, Curtis, Feyrer, Levin, Rose

This course is concerned with the behavior of the economy as a whole, particularly fluctuations in economic activity. General equilibrium models are developed to analyze the determinants of GNP, unemployment, the rate of inflation, and the growth of output. The micro foundations of macro aggregates are developed, with special emphasis on the role of expectations. The analytic tools are used to evaluate monetary and fiscal policies and to understand current macroeconomic controversies.

Prerequisite: ECON 1 and MATH 3 (or MATH 8 or MATH 11 or MATH 12 or MATH 13)

Distributive: Dist:SOC

ECON 24 - Development Economics
Instructor: Edmonds, McKelway, Novosad

This course uses economic analysis to understand contemporary issues in low-income countries. We consider why extreme poverty and hunger, child mortality, low- levels of education, gender inequality, environmental degradation, high fertility, and child labor are pervasive in the developing world. We also examine the economic consequences of globalization and infectious diseases such as malaria and HIV/AIDS. For each topic, we seek to understand the factors and constraints influencing decision-making in developing countries. We use this understanding to discuss the role of markets, civil organizations, government policy, and international institutions.

Prerequisite: ECON 1 and ECON 10

Distributive: Dist:INT or SOC; WCult:NW

ECON 25 - Competition and Strategy
Instructor: Greenlee

This course examines the strategies that businesses use in choosing prices, advertising, research and development, and mergers to maximize their profits. The course studies how business strategy is constrained by market competition and antitrust policy (government policy toward monopoly, collusion, and mergers). The analysis is conducted using game theory, empirical methods, and experimental methods.

Prerequisite: ECON 1 and MATH 3 (or MATH 8 or MATH 11 or MATH 12 or MATH 13), ECON 10 and ECON 21

Distributive: Dist:SOC

ECON 26 - The Economics of Financial Intermediaries and Markets
Instructor: Kohn, Zinman

This course examines the nature and function of financial intermediaries (e.g., banks, mutual funds, and insurance companies) and of securities markets (e.g., the money and capital markets and the market for derivatives). It analyzes liquidity and risk management and studies the efficiency, stability, and regulation of the financial system.

Prerequisite: ECON 1

Distributive: Dist:SOC

ECON 27 - Labor Economics
Instructor: Anderson

This course studies the economic behavior of employers and employees as they interact in the labor market. The class will move beyond the basics of labor supply and demand to cover such topics as human capital investment, the structure and determinants of financial compensation and benefits packages, contract negotiations and arbitration. Additionally, since many of the pressing problems facing the United States are labor market issues, this course will provide a basis for better understanding of nationally-debated issues such as reforms of the welfare system, the income tax system, immigration policy, and affirmative action programs.

Prerequisite: ECON 1

Distributive: Dist:SOC

ECON 28 - Public Finance and Public Policy
Instructor: Luttmer, Mello

Government policies exert a pervasive influence over the economy and people’s wellbeing. This course first analyzes the economic effects of public policies in the areas of environmental pollution, social insurance, retirement income, health, and poverty alleviation. The course then studies how governments finance their operations, paying attention both to institutional details and the effects of tax systems on efficiency and inequality. Throughout, we use empirical evidence and economic reasoning to better understand economic tradeoffs involved in current and proposed policies, including health reform, universal basic income, wealth taxation, unemployment insurance, fundamental tax reform, and Social Security.

Prerequisite: ECON 1

Distributive: Dist:SOC

ECON 29 - International Finance and Open-Economy Macroeconomics
Instructor: Grant, Zorzi
This course covers introductory material in the area of international monetary theory and policy. It examines the behavior of international financial markets, the balance of payments and exchange rates, interactions between the balance of payments, the exchange rate and domestic economic activity and ways of organizing the international monetary system.

Prerequisite: ECON 22
Distributive: Dist:INT or SOC

**ECON 32 - Monetary Policy and the Macroeconomy**
Instructor: Levin

This course will examine the key elements of a monetary policy framework, investigate how monetary policy decisions influence financial conditions and macroeconomic outcomes, and consider the practical challenges of monetary policymaking in a global context. Basic methods in time-series econometrics will be used to analyze macro data, construct forecasts, and assess current monetary policy strategies. Students will work together in teams, each of which will collect and analyze information for a specific country and give a series of oral presentations to the class.

Prerequisite: ECON 1, ECON 10 and ECON 22
Distributive: Dist:SOC

**ECON 35 - Games and Economic Behavior**
Instructor: Adams, Snyder

Game theory is the study of decisions made in strategic settings. The course introduces equilibrium concepts solving the infinite-regress problem (A’s decision depends on B’s which depends on A’s, and so forth) in increasingly complex environments. A wealth of social-science applications are considered ranging from business competition to terrorism as well as lighter applications to sports and games.

Prerequisite: ECON 1, ECON 10 and MATH 3
Distributive: Dist:SOC

**ECON 36 - Theory of Finance**
Instructor: Welborn, Zitzewitz

This course studies decision making under risk and uncertainty, capital budgeting and investment decisions, portfolio theory and the valuation of risky assets, efficiency of capital markets, option pricing, and problems of asymmetric information.

Prerequisite: ECON 10, ECON 21, and ECON 26
Distributive: Dist:SOC

**ECON 37 - Gender and Family Issues in Modern Economies**
Instructor: Olivetti

This course examines the changing economic roles of women and men in modern economies and the trade-offs faced by households. The origins and persistence of these trade-offs are analyzed through the lenses of economic models. The ultimate objective is to provide you with the tools to critically address a wide range of real-world questions related to gender and family. For instance: How have technological changes in the home and the market transformed families? In what ways are families in the US becoming increasingly stratified? What forces led married women to enter paid employment? What forces might lead them to “opt-out”? What is the rationale for paid parental leave? Why some firms offer it? Should they?

Distributive: Dist:SOC

**ECON 38 - The Economics of Governments and Public Policy**
Instructor: Cascio

Fundamental questions in public finance concern when and how governments should intervene in the economy. However, another fundamental question is: why do governments do what they do? This course considers governments as economic actors. We will theoretically and empirically investigate how social decisions are made; why governments fail; why different levels of government (federal, state, local) fund different public goods and services; and how governments at different levels interact. Topics to be covered include externalities and public goods, political economy, and fiscal federalism. K-12 education in the United States will provide a detailed case study, though other applications may be considered from time to time. Course involves an empirical project.

Prerequisite: ECON 1 (ECON 10 highly recommended though not required)
Distributive: Dist:SOC

**ECON 39 - International Trade**
Instructor: Irwin, Passarelli, Staiger R.

This course deals with the causes and consequences of international trade and factor movements. Topics covered include theories of why nations trade, the consequences of trade for economic welfare and the distribution of income, the determinants of trade patterns, the tariff and other forms of commercial policy, trade policies of selected countries, and the formation of the multinational corporation.

Prerequisite: ECON 1
Distributive: Dist:INT or SOC
ECON 57 - Data Analysis for Economic Policy: Economics of Career and Family
Instructor: Olivetti
This course examines the changing significance, timing, and meaning of career, family, and marriage, with special emphasis on the economic role of women and on determinants of gender gaps. For example, the gap between men’s and women’s earnings exists across the income distribution and the education distribution. But the gap is generally far greater for higher earners and for those with more education. Why? How do these gaps arise and what might reduce or eliminate them? Topics include the role of time controllability and compensating differentials; discrimination in pay in a host of circumstances; women’s bargaining skills; feedback mechanisms between household’s decisions and the labor market; children; parental leave policy; firm-level policies; childcare policies.
Distributive: Dist: SOC

ECON 62 - Topics in Macroeconomics
Instructor: Blanchflower
This seminar course will involve an in depth examination of selected topics that are of significance to the macro economy and economic growth. Topics will vary from year to year. It will examine developments in the United States and other advanced and developing economies. It will build on work done in Intermediate Macro (Econ 22) and Monetary Policy and the Economy (Econ 32) as well as the Financial Crisis (Econ 76). It focuses especially on issues and trends in the macro-economy and movements in the business cycle that develop over time. It is also possible to take an historical perspective on past macroeconomic developments including the Great Recession. Will require writing a major paper. Not open to students who have received credit for ECON 042.
Prerequisite: ECON 20, ECON 21, ECON 22, ECON 29 and either ECON 27 or ECON 37
Distributive: Dist: INT or SOC

ECON 64 - Topics in Developing Economics
Instructor: Edmonds, Startz
This seminar considers microeconomic aspects of the causes and consequences of extreme poverty in the developing world. Recent research on topics such as child labor, credit, education, environmental degradation, fertility, gender discrimination, health, HIV/AIDS, insurance, malnutrition, social capital, and technology adoption will be considered in depth. Topics vary from year to year. Students are required to write a major research paper. Not open to students who have received credit for ECON 044.
Prerequisite: ECON 20, ECON 21, ECON 22 and ECON 24 and either ECON 27 or ECON 39
Distributive: Dist: INT or SOC; WCult: NW

ECON 65 - Topics in Industrial Organization
Instructor: Basker
This course examines selected topics in business strategy and public policies designed to facilitate competition. These topics include market power, price discrimination, entry, product differentiation, vertical integration, regulation, and anti-trust. Students will discuss a broad range of papers on empirical industrial organization, apply concepts in a competitive strategy game, and write a major paper. Not open to students who have received credit for ECON 045.
Prerequisite: ECON 20, ECON 21, ECON 22, ECON 25 and ECON 35
Distributive: Dist: SOC

ECON 66 - Topics in Money and Finance
Instructor: Gupta, Sacerdote
A seminar course covering in depth such selected topics as the following: the theory of financial institutions; banking panics; the excess variability of asset prices; finance constraints and capital market imperfections; the theory of monetary policy; inflation and financial markets; debt and deficits. Will require writing a major paper. Not open to students who have received credit for ECON 046.
Prerequisite: ECON 20, ECON 21, ECON 22, ECON 26 and ECON 36
Distributive: Dist: SOC

ECON 67 - Topics in Labor Economics
Instructor: Anderson
This seminar provides an in-depth examination of selected topics in labor economics, with an emphasis on recent empirical studies. Readings will vary from year to year, but areas studied will generally build on material introduced in Econ 27. Will require writing a major empirical paper. Not open to students who have received credit for ECON 047.
Prerequisite: ECON 20, ECON 21, ECON 22, ECON 27 and either ECON 24 or ECON 28 or ECON 37
Distributive: Dist: SOC

ECON 68 - Topics in Public Economics
Instructor: Petre
This seminar explores pressing public policy issues using the theoretical and empirical tools of public economics. The course begins with a review of research design and relevant econometric techniques. We then move on to in-
depth explorations in selected topic areas, with a focus on the U.S. Topics vary from year to year but have recently included public goods and externalities; finance, accountability, and choice in K-12 education; behavioral and external effects of the cash and near-cash social safety net or of tax policy; and moral hazard and welfare impacts of social insurance. Will require writing a major empirical paper. Not open to students who have received credit for ECON 048.

Prerequisite: ECON 20, ECON 21, ECON 22, ECON 28 and ECON 38

Distributive: Dist: SOC

**ECON 69 - Topics in International Economics**

Instructor: Allen, Pavcnik

This seminar will cover selected topics in international trade and finance beyond those covered in ECON 29 and ECON 39. Offerings in the next few years are expected to include current research on (1) financial crises in emerging markets, (2) the role of trade, open capital markets, and financial development on growth in developing countries, (3) the determinants and consequences of foreign direct investment, (4) the impact of the multilateral trade agreements on world trade, and (5) issues related to globalization. Will require writing a major paper. Not open to students who have received credit for ECON 049.

Prerequisite: ECON 20, ECON 21, ECON 22, ECON 29 and ECON 39

Distributive: Dist: INT or SOC

**ECON 70 - Immersion Experience in Applied Economics and Policy**

In Economics 70, students study a specific topic in applied economics or policy on campus and then engage with that topic during a two-week immersion off campus after the end of the exam period. Specific topics and destinations for the off-campus component vary by section. For details on how to enroll see: https://economics.dartmouth.edu/immersion-experience.

Prerequisite: ECON 1

**ECON 70.01 - The Transition of Poland to a Market Economy**

Instructor: Curtis

Most economics courses taught in the US heavily emphasize the efficiency of markets and how individual decision-making, in freely functioning markets, can be modeled and understood. But there are a number of countries around the world whose economic organization is NOT mainly guided by markets; some of these economies remain partially controlled, or planned, where property and the means of production are formally government-owned and prices are centrally determined. This history of central planning has influenced the development of markets in much of Eastern Europe and the former Soviet Union; some economies have fully transitioned from planning to markets, while some lag significantly behind. In this class, students will study the history of the centrally-planned economic system and how it influenced economic development in Poland and we learn how Poland’s economy has transitioned to a market-oriented economy.

Prerequisite: ECON 1

**ECON 70.02 - China: The Country, The Companies and the People**

Instructor: Comin

China will study inclusive growth in China from three distinct perspectives: the aggregate, the company and the people. The aggregate/macro level will inform us about the economic mechanisms that are driving growth and inequality and how the policies and institutions are impacting them. From a company perspective, we will investigate how they operate in China. Finally, people are what ultimately we care about as social scientists. Therefore, we will make a central goal of the off-campus portion of Ec70 to interact with the Chinese population and to shed some light on all those important questions posed above that are very hard to grasp from the distance.

Prerequisite: ECON 1

**ECON 70.03 - Macroeconomics Policy in Latin America: Argentina and Chile**

Instructor: Irwin, Rose

Latin America has been a region buffeted by major economic and political shocks over the past century (military coups to democratization, closed trade policies to openness, macroeconomic instability and hyperinflation to macroeconomic stability). Economies in the region have been marked by high levels of income inequality and an enormous variety of economic policies, from macroeconomic populism (taken to an extreme in Venezuela) to economic orthodoxy (Chile). This course explores these issues, focusing on why certain economic policies are chosen and the consequences, emphasizing the contrasting experiences of Chile and Argentina. While Chile has achieved economic growth and macroeconomic stability since the mid-1980s, Argentina has struggled to achieve the same outcome and has been beset by financial crises and currency collapses. This course emphasizes the economic policy choices that lead to such divergent outcomes and the political and economic obstacles to economic development, policy reform, and structural adjustment.

Prerequisite: ECON 1
ECON 71 - Health Economics and Policy
The goals of the course are: 1) to understand the economic forces that have created the current challenges in US healthcare; 2) to develop skills that enable you to determine what types of information, data, and analyses are needed to analyze the economics of health policies designed to expand coverage, improve quality, and contain costs; and 3) through in-class exercises and a project, to perform and present economic analysis of current topics relevant for state and federal health system reform.
Prerequisite: ECON 1 and ECON 10
Cross-Listed as: PBPL 84.02
Distributive: Dist:SOC; WCult:W

ECON 73 - The Political Economy of Development
Instructor: Kohn
Why are some nations rich and others poor? Answering this question requires an understanding of the process of economic development and growth and also of the obstacles—predominantly political—that are placed in its way. This course develops such an understanding using the evidence of preindustrial Europe and China and building on the insights of Adam Smith. It then applies this understanding to analyze the problems of developing and developed countries today.
Prerequisite: ECON 1

ECON 75 - Environmental and Energy Economics
This course examines environmental and energy issues from an economics perspective. The course begins by discussing fundamental concepts in environment economics including cost benefit analysis and economic valuation of the environment. We also explore issues of policy design from an efficiency perspective. The class is introduced to issues of energy economics, including oil, natural gas, and electricity markets, renewables policy, transportation policies, and climate change policies. Finally, the course examines environmental issues related to trade, development, public finance, and competitive strategy.
Distributive: Dist:SOC

ECON 76 - Pandemics and Financial Crises
Instructor: Blanchflower
Topics covered will include (but are not limited to): the impact of the COVID pandemic, and subsequent recovery or lack of it and policy responses. Monetary and fiscal policy responses including quantitative easing will be examined. Direct comparisons will be drawn with the Great Depression, the Great Recession and other financial crises.
Prerequisite: ECON 20, ECON 22 and ECON 26

ECON 77 - Social Entrepreneurship
Instructor: Samwick
This course provides an introduction to the theory and practice of social entrepreneurship, defined as the process of finding innovative, sustainable solutions to social problems, particularly those related to poverty. Students will learn about the nature and causes of poverty, both domestically and internationally, and about the role that social entrepreneurs play in addressing poverty. The course culminates with teams of students developing business models for their own social entrepreneurship ventures.
Prerequisite: ECON 1
Cross-Listed as: PBPL 043
Distributive: Dist:SOC; WCult:W

ECON 78 - Fed Challenge
Instructor: Curtis
The College Fed Challenge is intended to help students become more knowledgeable about the Fed and the decision-making process of the Federal Open Market Committee (FOMC), the Federal Reserve’s monetary policy-setting group. The cap for the class is 10 students by instructor permission (5 of the 10 will be chosen to go to the competition).
Prerequisite: ECON 1 and ECON 22

ECON 79 - The Clash of Economic Ideas
Instructor: Irwin
Do the ideas of economists change the world? Or do major events change the ideas of economists? This course interweaves economic history with the history of economic thought to explore some of the major economic events that have changed our world over the past two centuries, such as the industrial revolution, the Great Depression, the collapse of socialism, and the globalization of the world economy. We will explore how the ideas of economists continue to influence how we think about how the economy works and the role of government in the economy. In particular, we will be studying the works of Adam Smith, Karl Marx, John Maynard Keynes, Friedrich Hayek, and Milton Friedman.
Prerequisite: ECON 1

ECON 80 - Advanced Topics in Econometrics
Instructor: Staiger
This course has two goals: (1) To further develop techniques that test for and remedy common problems associated with linear and non-linear regression analysis, and (2) to develop a practical understanding of how
regression analysis can be used to examine the empirical relevance of economic theory.

Prerequisite: ECON 20, ECON 21 and ECON 22 with a grade of A- or better or permission of instructor

Distributive: Dist: SOC

**ECON 81 - Advanced Topics in Microeconomics**

Instructor: Snyder

This is an advanced course on the economics of information. The focus of the course is a rigorous mathematical treatment of the value of information, moral hazard, learning, adverse selection, and signaling. Applications to labor markets, corporate governance, financial markets, and insurance will be discussed.

Prerequisite: ECON 20, ECON 21 and ECON 22 with a grade of A- or better and MATH 8 or permission of instructor

Distributive: Dist: SOC

**ECON 82 - Advanced Topics in Macroeconomics**

Instructor: Feyrer

The purpose of this course is to study in depth selected topics in Macroeconomics. Topics will include consumption, savings and investment; dynamic inconsistency and the design of monetary and fiscal policies, multiple equilibria, bubbles and cycles, and economic growth.

Prerequisite: ECON 20, ECON 21 and ECON 22 with a grade of A- or better or permission of instructor

Distributive: Dist: SOC

**ECON 85 - Independent Study in Economics**

This course is required of all majors in the Honors Program who do not initiate their honors work in their 40-level course; they will be expected to do the preliminary work on their Honors theses in this course. This course offers an opportunity for a student to do independent work under the direction of a member of the Department. For students who take this course in order to engage in independent study of a topic of interest rather than as a part of honors work, the prerequisite background will consist of all the regularly offered courses in the chosen field of study. Such a student will normally be expected to prepare, prior to the taking of ECON 85, a prospectus and a list of reading pertaining to the study he or she wishes to pursue.

Prerequisite: Requires permission of the vice chair and of the department faculty member who will be advising the student.

**ECON 87 - Senior Thesis**

As explained above under 'Economics Honors Program', selected students will be invited to enroll in ECON 87 after they have completed their 40-level course. Alternatively, a student can initiate honors work in ECON 85 and then enroll in ECON 87 with the approval of the student's adviser and the vice chair. Honors students will normally take ECON 87 in the term following their enrollment in ECON 85, or alternatively, following their enrollment in a 40-level course in which a thesis has been started. Other majors who wish to write a non-Honors thesis for single course credit will be required to have as prerequisite background all regularly offered courses in the chosen field of study and may take the course in either the first or second terms of the senior year.

Prerequisite: Requires permission of the vice chair, permission of the department faculty member who will be advising the student, and, in the case that the research was begun in a 40-level course, the permission of the faculty member who taught the 40-level course in which the thesis topic and the research were developed.

**ECON 87.01 - Senior Thesis in a Collaborative Setting**

Instructor: Lewis

Most economics students that write an honors thesis start their idea for an honors thesis topic based on independent research project completed in an Economics culminating experience seminar (any 60-level course) or the honors courses (any 80-level course). This course is meant to provide assistance in completing an honors thesis in economics that goes well beyond just advice from a single advisor. Completing an honors thesis in a collaborative setting will involve tasks such as presenting your work at multiple stages, as well as contributing to your peers’ success by providing constructive feedback.

### Minor in Education

Chair of the Steering Committee: Michele T. Tine, Associate Professor, Sociology

Professor D. J. Coch, Psychological and Brain Sciences; Associate Professor D. J. M. Kraemer, Psychological and Brain Sciences; Senior Lecturer C. J. Wheelan.

*To view Education courses, click here* (p. 256).

Students may minor in Education. Students may take Education courses singly, to fill distributive requirements, or to satisfy the requirements for the minor. Any cross-listed courses used for the Education minor require sign-up in the Education enrollment. Students who wish to have Education as the secondary part of a Modified Major may do so if the major forms a unified and coherent whole as approved by the Steering Committee for Education. All transfer courses must be approved in advance by the Chair of the Steering Committee.

The Education minor investigates the complex world of education through a research-based, interdisciplinary lens. EDUC 1 serves as the introductory course. Courses
numbered in the 10s through 40s are mid-level courses that explore broader topics, whereas courses numbered in the 50s and 60s are higher-level courses that examine more specific topics in more depth. The minor is composed of six courses: EDUC 1 is required, along with any five other courses (excluding EDUC 7). It is strongly recommended that minors take both mid-level and higher-level courses. A list of courses, the terms and times they will be offered, and sample syllabi (if available), are on the minor website.

EDUC - Education Courses

To view Education requirements, click here. (p. 255)

EDUC 1 - Introduction to Education: Learning, Development, and Teaching
Instructor: Tine, Coch.

Education, development, and learning are inextricably intertwined. In this course, we will explore how pre-Kindergarten through high school education is informed by scientific evidence across multiple domains. Topics to be explored may include the educational system in America; the research-to-practice gap and educational misconceptions; social, emotional, and motivational development in school context; memory, study strategies, metacognition, and assessment as related to learning; and learning and teaching in early math, science, and reading. Open to all classes.

Distributive: Dist:SOC

EDUC 13 - Disability in Children's Literature
Instructor: Coch.

In this course, we will explore how disability is represented in contemporary children's literature for middle-grade readers. Using educational, medical, and social lenses, we will critically consider the portrayal of students with various disabilities and others in their lives (teachers, parents, siblings, peers) in select children’s books, and discuss and determine how such books might be used for teaching and learning. Reading is one essential way that students learn about the world. Can children’s books be used to learn and teach about disability? Are students with disabilities represented accurately in children’s books? Are they portrayed as having equal educational opportunities?

Distributive: Dist:SOC

EDUC 17 - What Works in Education?
Instructor: Coch.

In a federally-mandated era of “evidence-based” education, what works in K-12 education? How do we know what works, and what does not? What does research show about which aspects of the classroom and school (other than content and curriculum, or what is taught) have a meaningful impact on student growth, learning, and achievement? We will consider topics such as class size, ability grouping and tracking, school start times, summer school, homework, direct instruction, problem- and project-based learning, personalized learning, and teacher education.

Distributive: Dist:SOC

EDUC 19 - Educational Testing
Instructor: Kraemer.

Increasingly, standardized tests define the landscape of American education. We use test scores to evaluate students, teachers, schools, states, and nations. But what do these test scores really mean? In this course, students examine the fundamentals of test development, and discuss what we can and cannot infer from test scores. Topics include using tests to assess learning, to promote learning, and to identify factors that predict different learning outcomes for different students. Open to all.

Distributive: Dist:SOC

EDUC 20 - Educational Issues Contemporary Society
Instructor: Wheelan.

This course gives students a critical introduction to the public institution they know best – the American school. You have already spent at least twelve years “studying” schools from the inside, though you have probably only considered a small piece of the broader education system. Public schools are one of the most important public policy levers for shaping society. We will examine the history and structure of public education in America. We will also study myriad topics related to creating “better schools”: recruiting and training teachers; charter schools and related institutional innovations; testing and accountability; school funding; racial and economic segregation. Overall, the course will explore how public education can contribute to a more informed, prosperous, and fair society.

Distributive: SOC

EDUC 24 - Education and Inequality
Instructor: McCabe.

How are schools organized and how do they organize society? What effects do schools have on individuals and what effects do they have on society? Using sociological theories and methods, we will examine the structure of schools and their effects on individuals and society. We will explore both formal and informal education. This course will focus on inequalities, specifically how social class, race, gender, and sexuality both organize and are organized by educational environments.

Cross-Listed as: SOCY 058
Distributive: Dist:SOC; WCult:W
EDUC 27 - The Impact of Poverty on Education
Instructor: Tine.
Rising income inequality is undermining the ability of public K-12 schools to meet a foundational goal: to provide children from impoverished areas the opportunity to succeed. This course focuses on the forces that have translated the growing income gap into a growing education gap. We will examine primary research from various fields that details how poverty affects developing children, families, neighborhoods, and schools in ways that go on to affect educational outcomes. We will also consider how interventions strategically targeted at these contexts can improve the educational success of children growing up in poverty.
Distributive: Dist:SOC

EDUC 30 - Educational Psychology
Instructor: Kraemer.
How do we learn? How can modern educational settings harness recent innovations concerning the essence of human learning? Educational psychology provides a foundation for applying the psychological principles that underlie learning in both formal and informal educational settings. In this course, we will explore the multitude of ways that people learn, the effects of different types of teaching strategies on learning, and the impact of individual differences on learning. We will also explore assessment, creativity and problem solving, as well as cultural and motivational influences on learning across diverse educational situations. Underlying the course will be an account of the way the human mind works, changes, and adapts in different settings. This includes the home, the school, the university and any context in which explicit or implicit education takes place. Open to all classes.
Distributive: Dist:SOC

EDUC 32 - Learning and Education Across Cultures
What role does culture play in human learning and development? Do differences in learning and schooling across cultures lead to disparities in learning outcomes? We will (i) explore the influence culture has on cognitive, social, and moral development, (ii) consider the diversity of views and practices regarding learning and education across cultures, (iii) examine differences in academic systems and achievement across countries, and (iv) discuss the implications for educational policy and practice in the US. Open to all classes.
Distributive: Dist:SOC

EDUC 34 - Adolescent Development and Education
Adolescence is a period of dramatic physical, cognitive, and psychosocial growth that provides both opportunities and risks for healthy development and educational attainment. This course will explore how physical maturation and brain development during adolescence transform an individual's self-identity, relationships with others, thinking and moral judgments. Since school is a central experience in most adolescents' lives, we will examine its crucial role in adolescent development, and also the influence of parents, peers, and society. Open to all classes.
Distributive: Dist:SOC

EDUC 37 - Language Development in Educational Contexts
How do infants acquire language so quickly and effortlessly? Why is it relatively difficult to learn a new language as an adult? This course will explore the biological bases that enable language acquisition, as well as the social, familial, and educational factors that contribute to language development from infancy to adolescence and beyond. We will examine both typical and atypical language development, and consider the implications of individual differences and language diversity for educational settings. Open to all classes.
Distributive: Dist:SOC

EDUC 46 - STEM and Education
Instructor: Kraemer.
How do we learn, understand, and teach science, technology, engineering, and math (the STEM disciplines)? In this class, we will explore the nature and development of the scientific mind; how we formulate theories, design experiments, and understand scientific, technological, and mathematical concepts; and how we learn and teach related skills in the classroom, addressing the debate about the effectiveness of direct instruction and hands-on approaches. Open to all classes.
Distributive: Dist:SOC

EDUC 47 - Social and Emotional Development
Instructor: Tine
This course investigates the social and emotional development of children as they move through middle school, and into adolescence. Throughout, students will read, analyze, and apply (in various assignments) classic and current empirical research on topics including the development of self-conscious emotions, gender roles, temperament, personality, motivation, aggression, self-esteem, identity, romantic relationships, delinquency, and the roles that parents and peers play in child development. Educational implications will be considered. Open to all classes.
Distributive: Dist:SOC

EDUC 50 - The Reading Brain: Education and Development
Instructor: Coch.
The majority of children entering first grade do not know how to read; the majority of children leaving first grade do know how to read, at least at a basic level. What is involved in the amazing development of the ability to make meaning of marks on a page? What goes on in the brain during reading and learning to read? We explore answers to these questions and more in this introduction to reading as we investigate the roles of orthography, phonology, semantics, syntax, and comprehension in reading. We focus on the development of reading behaviors, the brain bases of reading skills, and how scientific discoveries can inform educational practices. Open to all classes.

Distributive: SOC

EDUC 52 - Topics in Educational Theory
Instructor: Tine

In this course we will learn about the major theories that have influenced the study of human development throughout history. Readings and discussions will provide an in-depth historical lens onto the major conceptual approaches to the study of human development and learning including Freud, Piaget, Vygotsky, Behaviorism, Information Processing, Nativism, and Mind, Brain and Education. The course aims to explain the historical origins of current trends in the study of human development, learning and education. Open to all classes.

Distributive: Dist:SOC

EDUC 64 - Development in the Exceptional Child
Instructor: Coch.

What is an "exceptional" child? How might an exceptional child think about and experience the world? What is happening inside the brain of an exceptional child? We will learn about specific types of exceptionality likely to be encountered in the classroom, including attention deficit/hyperactivity disorder, autism spectrum disorders, depression, dyscalculia, specific language impairment, dyslexia, and dysgraphia. In exploring exceptionality, we will focus on behaviors that define the exceptional child; different approaches to learning, viewing the world, and interacting with others that characterize exceptional children; the brain bases of atypical or exceptional development; and how scientific knowledge affects educational practice. Open to all classes.

Distributive: SOC

Engineering Sciences - Undergraduate

Chair: Douglas W. Van Citters


To view Engineering Sciences Undergraduate courses, click here (p. 266).

To view Engineering Sciences Graduate requirements, click here (p. 765).

To view Engineering Sciences Graduate courses, click here (p. 769).

The undergraduate Engineering Sciences major leads to an A.B. degree. It provides engineering students with a common core of Science and Engineering Sciences courses. Interest in the various branches of engineering is accommodated through electives and usually through additional study leading to a Bachelor of Engineering or higher degree. For those students considering careers in such diverse fields as medicine, management, or law, the Engineering Sciences major enables them to better understand our increasingly technological society.

Students interested in a career in Engineering should plan on completing the Bachelor of Engineering or Master’s program. The Bachelor of Engineering degree program is accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 - telephone (410) 347-7700; it is equivalent in technical content to the Bachelor of Science degree in Engineering offered at many other universities but is broader in scope. It requires 10 courses in Natural Science, Mathematics, and Engineering beyond the requirements of the major in Engineering Sciences, and typically requires up to three terms in residence beyond the 12 terms required for the A.B. degree. Students who enter Dartmouth with advanced standing may be able to complete the B.E. at the same time as the A.B. (i.e., in four years).

The graduate degrees are differentiated according to function. For those interested in design, professional practice, and engineering management, the M.E.M. degree is offered; for those interested primarily in research, the
M.S. and Ph.D. degrees. Additionally, a joint M.D./Ph.D. program is offered in conjunction with the Dartmouth Medical School and a joint M.E.M./M.B.A. program with the Tuck School of Business. The Thayer School Guide to Programs and Courses should be consulted for detailed information on all graduate programs (B.E. and above).

Courses Available To Non-Majors and First-Year Students

Several engineering sciences courses have few or no prerequisites and may be taken by first-year students exploring a potential interest in the major, or by non-majors seeking to broaden their education with the study of technology. These courses include ENGS 1.01, ENGS 2, ENGS 4, ENGS 5, ENGS 6, ENGS 7, ENGS 11, ENGS 12, ENGS 13, ENGS 15, ENGS 15.01, ENGS 15.02, ENGS 16, ENGS 17.04, ENGS 18, ENGS 19.01, ENGS 21, ENGS 31, and ENGS 37.

Technology

Undergraduate courses up to ENGS 86 satisfy the Technology and Applied Sciences distributive requirements (TAS). Some also satisfy the distributive laboratory requirement (TLA). For those students interested in an introduction to technology and applied sciences one of the courses ENGS 1 through 19.01 is recommended.

Requirements for the Major

The sequential nature of the Engineering Sciences curriculum, and the possibilities for developing modified majors with other departments require that students plan their study programs well in advance. Assistance in planning programs may be obtained from an engineering faculty advisor.

All first-year students interested in the sciences should take the placement test in mathematics. The prerequisite courses for the Engineering Sciences major are MATH 3, MATH 8, MATH 13, PHYS 13, PHYS 14, plus ENGS 20 and CHEM 5. COSC 1 and COSC 10 can be substituted for ENGS 20. For students prepared for advanced placement in Calculus it is advisable to take the sequence, MATH 8 and MATH 13, or MATH 11.

Unless otherwise prohibited, prerequisites for the major may be taken under the Non-Recording Option. No more than two transfer courses may be used for credit in the major.

No course being used to satisfy major requirements may be taken under the Non-Recording Option.

The Engineering Sciences Major requires seven courses from the core program:

1. ENGS 21, ENGS 22, and ENGS 23 are required.
2. Two from ENGS 24, ENGS 25, ENGS 26, and ENGS 27.
3. Two from ENGS 31 or ENGS 32; ENGS 33 or ENGS 34; ENGS 30, ENGS 35 or ENGS 36; or ENGS 37.

Two additional courses are required:

4. One elective in Engineering Science.
5. One elective in Engineering Science, mathematics or a science course.

A Culminating Experience in Engineering Sciences is required. This can be taken as one of the two electives or as an additional course. The culminating experience may be: a project or a thesis, ENGS 86, ENGS 88 or ENGS 89 (ENGS 89 must be taken as part of the two-course design sequence ENGS 89/ENGS 90; or an advanced engineering sciences course with a significant design or research project, normally taken in the senior year, chosen from an approved list. Consult the Engineering Sciences Department for the most recent list.

Only Engineering Sciences courses numbered above 20 (excluding ENGS 80 and ENGS 87) may be counted as electives in the major.

Students seeking to complete the A.B. and B.E. degrees concurrently should note that ENGS 89 may also be counted toward requirements for the B.E. program.

Satisfactory completion of the major requires a grade point average of 2.0 in the courses suitable for satisfying the major (other than those prerequisite to the major). The same criterion holds for both courses in a modified major and those in a minor.

The courses in the third tier of the core Engineering Sciences (31-37) serve as introductions to different areas of engineering. These courses and other electives are offered to allow students to shape their programs to reflect interests in one of the usual branches of engineering or in accordance with their own special interests. In Mechanical Engineering, the normal third tier core courses and electives are ENGS 33, ENGS 34 and ENGS 76; in Electrical Engineering, ENGS 31, ENGS 32, ENGS 61 and ENGS 62; in Computer Engineering, ENGS 31, ENGS 62, ENGS 63 (see also modified major below); in Environmental Engineering, ENGS 37, ENGS 41, ENGS 46 (formerly 42) and ENGS 43 (see also modified major below); in Materials Science, ENGS 33 and ENGS 73; in Chemical Engineering, ENGS 34, ENGS 35, ENGS 36 and ENGS 37 (see also modified major below); in Biomedical Engineering, ENGS 35 and ENGS 56. Students interested in Chemical Engineering are advised to elect CHEM 6, CHEM 57, and CHEM 61 in addition to their engineering courses, and to consult Professor Lynd in formulating their program.

Requirements for the Major in Biomedical Engineering Sciences
The biomedical engineering major is offered to students interested in medical school. Faculty from Thayer School and Dartmouth Medical School jointly advise the research projects.

Prerequisites are MATH 3, MATH 8, MATH 11 or MATH 13, PHYS 13, PHYS 14, CHEM 5-6 or CHEM 10, plus ENGS 20. COSC 1 and COSC 10 can be substituted for ENGS 20.

Unless otherwise prohibited, prerequisites for the major may be taken under the Non-Recording Option.

No course being used to satisfy major requirements may be taken under the Non-Recording Option.

The biomedical engineering major consists of five engineering science courses, ENGS 21 and ENGS 22, one additional core course chosen from ENGS 23, ENGS 24, ENGS 25, ENGS 26 or ENGS 27, one gateway course chosen from ENGS 31, ENGS 32, ENGS 33, ENGS 34, ENGS 35 or ENGS 36 and ENGS 56 or one additional course chosen from ENGS 23, ENGS 24, ENGS 25 or ENGS 26; four biology and chemistry courses, two from BIOL 12, BIOL 13, BIOL 14 and CHEM 51-52 or CHEM 57-58 and one biochemistry or engineering science elective\(^1\) chosen from BIOL 40 or CHEM 41, or an engineering science course numbered 23 or above.

\(^{1}\)Students wishing to pursue the BE degree are advised to choose an Engineering Sciences course as their elective.

A culminating experience is required\(^2\). It may be an independent project or honors thesis, ENGS 86 or ENGS 88, or one of the following courses in biotechnology or biomedical engineering, ENGS 160, ENGS 161, ENGS 162, ENGS 163, ENGS 165 or ENGS 167.

\(^{2}\)Students wishing to pursue the BE degree are advised to choose an Engineering Sciences course as their elective, and to choose Engineering Sciences 165 for their culminating experience.

Dartmouth Medical School offers an opportunity for accomplished biomedical engineering sciences majors to apply for early admission to the Dartmouth Medical School through the Early Assurance Program. For more information, please consult the Thayer website at: http://engineering.dartmouth.edu/undergraduate/ab/biomed-major.html

**Requirements for the Minor in Engineering Sciences**

Prerequisites are MATH 3, MATH 8 and MATH 13, and PHYS 13 and PHYS 14. The required courses are ENGS 20, ENGS 21, ENGS 22 and two Engineering Sciences undergraduate courses numbered above 20 (excluding ENGS 80 and ENGS 87). Students should note that some Engineering Sciences courses require prerequisites in addition to those noted. No engineering sciences courses numbered 20 and above may be taken under the Non-Recording Option. No course may be used for both a major and a minor (although a course may be part of one of these and prerequisite to the other, or prerequisite to both).

**Requirements for Another Major Modified with Engineering Sciences**

Prerequisites are MATH 3 and MATH 8, and PHYS 13 or PHYS 3 and PHYS 4\(^*\). The required courses are four Engineering Sciences courses numbered above 20 (excluding ENGS 87), to include ENGS 21 and should be coherent with the student's major field of study and approved, upon petition, by the Chair of Engineering Sciences. Students should note that many Engineering Sciences courses require prerequisites in addition to MATH 8 and PHYS 13. No engineering sciences courses numbered 20 and above may be taken under the Non-Recording Option.

\(^*\)Must have been taken at Dartmouth, no AP credit is permitted.

**Requirements for the Minor in Materials Science**

The minor in Materials Science is sponsored by faculty in Chemistry, Physics and Engineering with an interest in interdisciplinary education and research in materials science.

**Requirements for the Minor in Human-Centered Design**

The minor in human-centered design in Engineering Sciences is an interdisciplinary program comprising six courses, two from each section below (1, 2, 3):

Prerequisite: MATH 3

1. Design Foundation: ENGS 12 and ENGS 21
2. *Ethnographic Methods and Human Factors/Psychology*: ANTH 3 (p. 102), ANTH 18 SOCY 11, GEOG 11, PSYC 22, PSYC 23, PSYC 28, PSYC 38, PSYC 43, PSYC 50.02, PSYC 53.10, PSYC 53.12, PSYC 53.13
3. Design Electives: ENGS 15.01, ENGS 15.02, ENGS 18, ENGS 44, ENGS 75, COSC 23.01, COSC 25.01, COSC 25.02, COSC 28, COSC 29.04, FILM 51, PBPL 43, SART 65, SART 66, SART 68, Independent Study in a relevant discipline.

Before taking courses in the section 3, it is recommended that students complete both courses in section 1 plus at least one course from section 2.

No engineering sciences courses numbered below 20 may be used for both a major and a minor (although a course may be part of one of these and prerequisite to the other, or prerequisite to both).

For Engineering majors: Only ENGS courses numbered below 20 may be counted towards the minor.

For advice contact the Faculty Advisor for the minor, Peter Robbie.
*One of the two courses in Section 2 must be outside of the student’s major.

**Requirements for Any Major Modified with Human-Centered Design**

Any major may be modified with the minor in Human-Centered Design. The HCD minor portion of the modification requires three (3) prerequisites plus a total of four (4) courses selected from course electives in Section 2 and Section 3, with at least one (1) course from each section.**

1. Prerequisites: MATH 3, ENGS 12 and ENGS 21
2. Ethnographic Methods and Human Factors/Psychology: ANTH 3 (p. 102), ANTH 18 SOCY 11, GEOG 11, PSYC 22, PSYC 23, PSYC 28, PSYC 38, PSYC 43
3. Design Electives: ENGS 15.01, ENGS 15.02, ENGS 18, ENGS 44, COSC 23.01, COSC 25.01, COSC 25.02, COSC 28, COSC 29.04

**Due to the potential overlap between the HCD courses and existing majors, there is potential for creating a program of study that does not add significant value beyond a straight major. Students pursuing the modification should note that 1) there should be a strong intellectual rationale, 2) the proposed plan should be adding something new and significant that is not possible with the straight major, and 3) there should not be significant overlap in courses between the modifier and the primary field of the major.

**Requirements for the Engineering Physics Major**

The Department of Engineering Sciences and the Department of Physics and Astronomy offer a major in Engineering Physics. This major features a 5/5 split in courses, unlike a modified major which requires six courses from one field and four from the other.

The prerequisite courses for the Engineering Physics major are MATH 3, MATH 8, MATH 13, MATH 23; PHYS 13, PHYS 14; CHEM 5; and COSC 1 and COSC 10 or ENGS 20;

The Engineering Physics major is a ten-course program consisting of three Engineering Sciences core courses (ENGS 22, ENGS 23, ENGS 24); three Physics core courses (PHYS 19, PHYS 40, PHYS 43) [Students taking PHYS 15 and PHYS 16 should substitute a third physics elective for PHYS 19]); and four electives, two from each department. Two electives must be selected from the following list: ENGS 25, ENGS 33, ENGS 34; PHYS 50, PHYS 68, PHYS 90; PHYS 73 or ENGS 131; PHYS 66 or ENGS 64 or ENGS 120; PHYS 44 or ENGS 72. The other two electives may be courses from the Engineering Sciences Department (numbered above 20, excluding ENGS 80 and ENGS 87) or courses from the Physics and Astronomy Department which fulfill the straight physics major.

^Students wishing to pursue the BE degree are advised to choose an Engineering Sciences course as their elective.

A culminating experience is required in the major which can be taken instead of one of the electives above. It must be one of the following: a project or a thesis, ENGS 86, ENGS 88 or ENGS 89^3 (ENGS 89 must be taken as part of the two-course design sequence ENGS 89/ ENGS 90); or an advanced engineering sciences course with a significant design or research project, normally taken in the senior year, chosen from an approved list. Consult the Engineering Sciences Department for the most recent list) or PHYS 68, PHYS 72, PHYS 73, PHYS 74, PHYS 76, PHYS 82, PHYS 87.

^Prior to enrollment in ENGS 89, at least six engineering sciences courses must be completed; ENGS 21 plus five additional courses numbered 22 to 76 (excluding 75) and 91 and above.

All major programs require an average GPA of 2.0 in all courses counted toward the major, including prerequisites.

For more information contact Professor Kristina Lynch (Physics and Astronomy) or Professor Jifeng Liu (Engineering Sciences).

**Modified Majors**

Diverse interests of students have, in the past, led to the construction of Engineering Sciences majors modified by courses in biology, chemistry, mathematics, computer sciences, physics, art, economics, neuroscience, or environmental studies.

No course being used to satisfy major requirements may be taken under the Non-Recording Option with the exception of the prerequisites to the major.

The following specific modified majors have been established.

**Modified major with Biology**: Students interested in engineering and biology may elect a modified major with biology. This modified major must include:

1. as prerequisites: MATH 3, MATH 8, and MATH 13; PHYS 13 and PHYS 14; CHEM 5 or CHEM 10, ENGS 20, and BIOL 12;

2. for the Engineering Sciences portion: ENGS 22, ENGS 25 and ENGS 35 plus three courses elected from ENGS 21, ENGS 23, ENGS 24, ENGS 26, ENGS 33, ENGS 34, ENGS 36, ENGS 37, ENGS 52, ENGS 56, ENGS 58, ENGS 91, ENGS 161, ENGS 162, ENGS 165
(ENGS 91, ENGS 161 and 165 also satisfy the culminating experiment requirement, see below);

3. for the biology portion: BIOL 13, plus three courses elected from BIOL 37, BIOL 42, BIOL 43, BIOL 45, BIOL 46, BIOL 71 or CHEM 51 or CHEM 57.

4. the modified major must also include a culminating experience, which may be a project or a thesis, ENGS 86, ENGS 88 or ENGS 895 (ENGS 90 must be taken as part of the two-course design sequence ENGS 89/ ENGS 90; or an advanced engineering sciences course with a significant design or research project, normally taken in the senior year, chosen from an approved list. (Consult the Engineering Sciences Department for the most recent list.)

Students interested in the modified major with Biology should contact Professor Lynd.

Modified major with Chemistry: Students interested in engineering and chemistry may elect a modified major with chemistry. The major enables students to design programs of study that reflect the diversity of their interests. It requires a core of three engineering courses, provides a broad yet relevant set of engineering electives, requires a two-course chemistry core, and is completed with two chemistry electives. This modified major must include:

1. as prerequisites: MATH 3, MATH 8, and MATH 13; PHYS 13 and PHYS 14; CHEM 5/ CHEM 6 or CHEM 10; ENGS 20;

2. for the Engineering Sciences portion: ENGS 22, ENGS 25 and 36 plus three courses elected from the following: ENGS 21, ENGS 23, ENGS 24, ENGS 26, ENGS 33, ENGS 34, ENGS 35, ENGS 37, ENGS 52, ENGS 91, ENGS 156, ENGS 158 (ENGS 91, ENGS 156 and ENGS 158 also satisfy the culminating experience requirement, see below.) Not more than two from ENGS 21, ENGS 35 and ENGS 37 may be counted toward the major.

3. for the Chemistry portion: CHEM 51 or CHEM 57 and CHEM 75 plus two courses elected from CHEM 41, CHEM 52 or CHEM 58, CHEM 63, CHEM 64, CHEM 67, CHEM 76.

4. the modified major must also include a culminating experience, which may be a project or a thesis, ENGS 86, ENGS 88 or ENGS 895 (ENGS 89 must be taken as part of the two-course design sequence ENGS 89/ ENGS 90; or an advanced engineering sciences course with a significant design or research project, normally taken in the senior year, chosen from an approved list. Consult the Engineering Sciences Department for the most recent list.

Students interested in the modified major with Computer Science should contact Professors Santos or Taylor.

Modified Major with Earth Sciences: For those students interested in earth sciences, a major in engineering sciences modified with earth sciences is recommended. Such a modified major must include:

1. as prerequisites: MATH 3, MATH 8, MATH 13; COSC 1 and COSC 10; PHYS 13 and PHYS 14; and CHEM 5.

2. for the modified major required courses include: ENGS 22, ENGS 27, ENGS 31, COSC 50, plus ENGS 23 or ENGS 24.

3. for the modified major, breadth options include: a total of five courses from Groups A, B, and C with at least one course from each of the groups and three of the courses must be Computer Science courses; Group A includes ENGS 32, ENGS 62, COSC 51; Group B includes ENGS 26, ENGS 68, ENGS 92 (ENGS 92 also satisfies the culminating experience requirement, see below), COSC 60; Group C includes ENGS 91, COSC 31, COSC 77, COSC 58.

4. the modified major must also include a culminating experience, which may be a project or a thesis, ENGS 86, ENGS 88 or ENGS 895 (ENGS 89 must be taken as part of the two-course design sequence ENGS 89/ ENGS 90; or an advanced engineering sciences course with a significant design or research project, normally taken in the senior year, chosen from an approved list. Consult the Engineering Sciences Department for the most recent list.

Students interested in the modified major with Computer Science should contact Professors Santos or Taylor.

Modified Major with Earth Sciences: For those students interested in earth sciences, a major in engineering sciences modified with earth sciences is recommended. Such a modified major must include:

1. as prerequisites: MATH 3, MATH 8, MATH 13; PHYS 13 and PHYS 14; CHEM 5, ENGS 20, one introductory Earth Sciences course (EARS 1-9 exclusive of EARS 7) plus EARS 40;

2. for the Engineering Sciences portion: ENGS 22, ENGS 23, ENGS 24 and ENGS 25 plus two engineering sciences electives, numbered above 20 (except ENGS 80 and 87);

3. for the Earth Sciences portion: Four Earth Sciences courses, numbered 10 or above, at least one of which must be a Core Methods and Concepts course (Earth Sciences 30-59) and at least one of which must be a Quantitative Analysis or Advanced Topics course (Earth Sciences 60-79).

6Prior to enrollment in ENGS 89, at least six engineering sciences courses must be completed; ENGS 21 plus five additional courses numbered 22 to 76 (excluding 75) and 91 and above.

Students interested in the modified major with Chemistry should contact Professor Lynd.

Modified Major with Computer Science: For those students interested in computer engineering, a major in engineering sciences modified with computer science is recommended. Such a modified major must include:

1. as prerequisites: MATH 3, MATH 8, MATH 13; COSC 1 and COSC 10; PHYS 13 and PHYS 14; and CHEM 5.

2. for the modified major required courses include: ENGS 22, ENGS 27, ENGS 31, COSC 50, plus ENGS 23 or ENGS 24.

3. for the modified major, breadth options include: a total of five courses from Groups A, B, and C with at least one course from each of the groups and three of the courses must be Computer Science courses; Group A includes ENGS 32, ENGS 62, COSC 51; Group B includes ENGS 26, ENGS 68, ENGS 92 (ENGS 92 also satisfies the culminating experience requirement, see below), COSC 60; Group C includes ENGS 91, COSC 31, COSC 77, COSC 58.

4. the modified major must also include a culminating experience, which may be a project or a thesis, ENGS 86, ENGS 88 or ENGS 896 (ENGS 89 must be taken as part of the two-course design sequence ENGS 89/ ENGS 90; or an advanced engineering sciences course with a significant design or research project, normally taken in the senior year, chosen from an approved list. Consult the Engineering Sciences Department for the most recent list.

Students interested in the modified major with Computer Science should contact Professors Santos or Taylor.

Modified Major with Earth Sciences: For those students interested in earth sciences, a major in engineering sciences modified with earth sciences is recommended. Such a modified major must include:

1. as prerequisites: MATH 3, MATH 8, MATH 13; PHYS 13 and PHYS 14; CHEM 5, ENGS 20, one introductory Earth Sciences course (EARS 1-9 exclusive of EARS 7) plus EARS 40;

2. for the Engineering Sciences portion: ENGS 22, ENGS 23, ENGS 24 and ENGS 25 plus two engineering sciences electives, numbered above 20 (except ENGS 80 and 87);

3. for the Earth Sciences portion: Four Earth Sciences courses, numbered 10 or above, at least one of which must be a Core Methods and Concepts course (Earth Sciences 30-59) and at least one of which must be a Quantitative Analysis or Advanced Topics course (Earth Sciences 60-79).
4. the modified major must also include a culminating experience, which may be a project or a thesis, ENGS 86, ENGS 88 or ENGS 89\(^7\) (ENGS 89 must be taken as part of the two-course design sequence ENGS 89/ENGS 90; or an advanced engineering sciences course with a significant design or research project, normally taken in the senior year, chosen from an approved list. Consult the Engineering Sciences Department for the most recent list.

\(^7\)Prior to enrollment in ENGS 89, at least six engineering sciences courses must be completed; ENGS 21 plus five additional courses numbered 22 to 76 (excluding 75) and 91 and above.

Students interested in the modified major with Earth Sciences should contact Professor Schulson.

Modified Major with Environmental Sciences: A modified major has been established to permit interdisciplinary study in environmental sciences. Effective preparation for graduate study or professional activity in the environmental sciences requires an assimilation of material traditionally encountered in biology, chemistry, ecology, and earth sciences, as well as in engineering sciences. This modified major must include:

1. as prerequisites: MATH 3, MATH 8, and MATH 13; PHYS 13 and PHYS 14; CHEM 5 or CHEM 10; BIOL 16; and ENGS 20;
2. for the Engineering Sciences portion: ENGS 22, ENGS 25, ENGS 37 and three of the following: ENGS 27, ENGS 34, ENGS 35, ENGS 36, ENGS 41, ENGS 43, ENGS 44, ENGS 52, ENGS 171, ENGS 172, with at least two courses from among ENGS 41, ENGS 43, ENGS 44.
3. for the Environmental Sciences portion: four courses from the following list, with at least two courses from one department. BIOL 21 or 51, BIOL 26, BIOL 27 or BIOL 68, BIOL 22, 25, 53; CHEM 51, CHEM 63; EARS 16, EARS 35, EARS 66, EARS 71, EARS 76, EARS 77, EARS 78; ENVS 12, ENVS 15, ENVS 20, ENVS 25, ENVS 30, ENVS 53. Additional requirements: CHEM 51 is permitted only as a prerequisite to CHEM 63.
4. the modified major must also include a culminating experience, which may be a project or a thesis, ENGS 86, ENGS 88 or ENGS 89\(^8\) (ENGS 89 must be taken as part of the two-course design sequence ENGS 89/ENGS 90; or an advanced engineering sciences course with a significant design or research project, normally taken in the senior year, chosen from an approved list. Consult the Engineering Sciences Department for the most recent list.

\(^8\)Prior to enrollment in ENGS 89, at least six engineering sciences courses must be completed; ENGS 21 plus five additional courses numbered 22 to 76 (excluding 75) and 91 and above.

Students interested in the modified major with Economics should contact Professor Parker.

Modified Major with Neuroscience: Students interested in engineering and neuroscience may elect a modified major with neuroscience, consisting of: as prerequisites: MATH 3, MATH 8, MATH 13; PHYS 13, PHYS 14; CHEM 5, ENGS 20 or COSC 1 and COSC 10; PSYC 6 for the Engineering Sciences portion: ENGS 21 and ENGS 22, ENGS 26 or ENGS 27, ENGS 31 or ENGS 32 and two from ENGS 26, ENGS 27 (if not taken above), ENGS 31, ENGS 32 (if not taken above), ENGS 30, ENGS 33, ENGS 56, ENGS 57, ENGS 61, ENGS 62, ENGS 63, ENGS 65, ENGS 67 or ENGS 93 for the Neuroscience portion: two of the following three, PSYC 45, PSYC 46 or PSYC 65 and two from PSYC 21, PSYC 27, PSYC 40, PSYC 60, PSYC 80-87 (only one seminar as one of the two electives) and BIOL 27.

The modified major must also include a culminating experience, which may be a project or a thesis, ENGS 86, 88 or ENGS 89\(^9\) (ENGS 89 must be taken as part of the two-course design sequence ENGS 89/
ENGS 90; or an advanced engineering sciences course with a significant design or research project, normally taken in the senior year, chosen from an approved list. Consult the Engineering Sciences Department for the most recent list.

Students interested in the modified major with Neuroscience should contact Professor Ray

**Modified major with Public Policy:** Students interested in technology and public policy may want to consider an engineering major modified with public policy. This modified major must include:

1. as prerequisites: MATH 3, MATH 8 and MATH 13; PHYS 13 and PHYS 14; ENGS 20 or COSC 1 and COSC 10; CHEM 5; a course in statistical data analysis, such as ECON 10, SOCY 10, or MATH 10.

2. for the Engineering Sciences portion: ENGS 21 and ENGS 22, plus one course selected from ENGS 23-27, one course selected from ENGS 30-37, one course selected from ENGS 41, ENGS 43, ENGS 44, ENGS 51, ENGS 52, ENGS 56 and one Engineering Sciences course numbered above 20.

3. for the Public Policy portion: PBPL 5, plus at least one Public Policy methods course, such as: PBPL 40-48 or ECON 20, and at least one course from a policy track. These are typically mid-level courses in Public Policy or related departments, and cannot include Engineering Sciences courses. Possible tracks include: Environment and Public Policy; Health and Public Policy; Natural resources and Public Policy; and Science/technology and Public Policy. The Rockefeller Center maintains a list of suggested offerings in these areas.

4. the modified major must also include a culminating experience, which may be a project or a thesis, ENGS 86, ENGS 88 or ENGS 89\(^9\) (ENGS 89 must be taken as part of the two-course design sequence ENGS 89/ENGS 90; or an advanced engineering sciences course with a significant design or research project, normally taken in the senior year, chosen from an approved list. Consult the Engineering Sciences Department for the most recent list.

\(^9\)Prior to enrollment in ENGS 89, at least six engineering sciences courses must be completed; ENGS 21 plus five additional courses numbered 22 to 76 (excluding 75) and 91 and above.

Students interested in the modified major with Studio Art should contact Professor Robbie.

**Modified major with Studio Art:** Students interested in architecture or product design may want to consider an engineering major modified with studio art. This modified major must include:

1. as prerequisites: MATH 3, MATH 8, and MATH 13; PHYS 13 and PHYS 14; plus ENGS 20 and CHEM 5;
grade point average of 3.0, and a grade point average of 3.33 in the major.

The main requirement of the Honors Program is the completion of an honors project. The project, a creative activity suitable to the major subject, is not restricted to experimental work but can equally take the form of a theoretical investigation. Much of the development of the honors project will normally take place within the framework of ENGS 88, the Honors Thesis. (ENGS 88 also fulfills the requirement for a culminating experience in the major.) Upon completion of the project, the student will submit a written thesis and give an oral presentation. Those students who satisfactorily complete the Honors Program with a ‘B+’ average or better and have a grade point average of 3.5 or higher in the major at the time of graduation, will earn Honors recognition in the major. High Honors will be granted to those students who, in addition, have taken two engineering science courses beyond those required for the major (excluding courses under ENGS 20 and ENGS 87), have attained a grade point average of 3.50 in all engineering courses, and have completed outstanding independent work. A vote of the Department is also required prior to awarding High Honors. Students may begin their project the previous term by enrolling in ENGS 87, Undergraduate Investigations. An interim evaluation of honors students will be made after one term and continuation will be recommended for those students whose work demonstrates the capacity for satisfactory (B+) work. Students who satisfactorily complete the Honors Program will have entered on their permanent record Honors in Engineering Sciences, or High Honors in Engineering Sciences.

Advanced Standing in Thayer School Graduate Programs
Many students majoring in engineering sciences enter Dartmouth College with course credits, proficiencies, or both, in a number of subjects resulting from exceptional preparation in high school. As a result, these students have increased elective freedom in choosing courses to satisfy their A.B. requirements.

The 100- and 200-level Engineering and Engineering Sciences courses described in this catalog can be used to satisfy the A.B. degree requirements.

Election of 100- and 200-level Engineering and Engineering Sciences courses in excess of the undergraduate requirements for the major and for admission to any of Thayer’s post-A.B. programs will permit a student to be admitted to the Thayer School with advanced standing. Depending upon the number of elective opportunities, significant reduction in the time required to complete Thayer School’s graduate degree programs is possible.

To take full advantage of this opportunity students are urged, as early as possible after declaring their major, to consult with their Thayer School faculty adviser.

Additional details are contained in the Thayer School Catalog.

Requirements for the Bachelor of Engineering Degree (B.E.)
The Bachelor of Engineering (B.E.) program is a professional engineering program accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202, Telephone: (410) 347-7700.

B.E. students take required courses and electives in mathematics, basic science, engineering sciences, and engineering design. Completion of the B.E. program after the A.B. degree generally requires between one and 3 terms at Thayer School depending on courses taken during the first 4 years. Advanced standing on entry to Dartmouth may shorten the overall time required. The B.E. degree requires a minimum of 9 courses beyond the requirements for the A.B. degree of which at least 6 courses must have significant engineering design credit. A total of 24.5 courses is required. Consult the 2020-2021 Thayer School Guide to Programs and Courses for details. The requirements for the B.E. are as follows:

1. Mathematics and Natural Sciences (9 courses required): MATH 3, MATH 8, MATH 13; or 11, PHYS 13, PHYS 14, plus ENGS 20 and CHEM 5. COSC 1 and COSC 10 can be substituted for ENGS 20. ENGS 91, ENGS 92 or ENGS 93. Two non-introductory courses chosen from ASTR 15 and above; BIOL 12 and above (except BIOL 20 and 52); CHEM 6, CHEM 10 and above (except CHEM 63); EARS 31, EARS 33, EARS 35, EARS 37, EARS 40-52, EARS 59, EARS 62, EARS 64, EARS 66-75, EARS 78, EARS 79 and above; ENGS 66; ENVS 30 and ENVS 79; MATH 17 – 29, MATH 31, MATH 32, MATH 35, MATH 38, MATH 39, MATH 40, MATH 42, MATH 43, MATH 50 and above; PHYS 19 or PHYS 40 (formerly 24), PHYS 41 and above (except PHYS 48); COSC 30/ENGS 66, COSC 31, COSC 35, COSC 39, COSC 40, COSC 49, COSC 71, COSC 73, COSC 74; PSYC 21, PSYCH 40, PSYCH 45, PSYCH 46, PSYCH 65.

2. Engineering Common Core (3.5 courses required): ENGS 20 (counts as 0.5 course for B.E. credit) or COSC 1 and COSC 10 and ENGS 21, ENGS 22, and ENGS 23.

3. Engineering Distributive Core (2 courses required): ENGS 24, ENGS 25, ENGS 26 or ENGS 27.

4. Engineering Gateway (choose 2 from 2 different disciplines): ENGS 31 or ENGS 32, ENGS 33 or ENGS 34, ENGS 30, ENGS 35 or ENGS 36, ENGS 37.

5. Engineering Electives (6 courses required): Three courses must form a coherent disciplinary concentration** with 1 of these having significant design content; the remaining 3 electives may be
chosen from ENGS or ENGG courses numbered 24-88 (except 66, 75, 80 and 87), 110-174, 192 and 199; COSC 50-84 (except COSC 30, COSC 31, COSC 35, COSC 39, COSC 40, COSC 49, COSC 53, COSC 71, COSC 73 and COSC 74) and COSC 170-276 (except COSC 174, COSC 179, COSC 189, COSC 210). 2 of the 3 electives may be mathematics or natural science courses as listed above.

6. Capstone Engineering Design (2 courses required): ENGS 89/ ENGS 90. Prior to enrollment in ENGS 89, at least 6 engineering courses must be completed. These include ENGS 21 plus 5 additional courses numbered 22 to 76 (excluding 75) and 91 and above.

**With the exception of one of either ENGS 34 (prerequisites ENGS 20, ENGS 22, ENGS 23, ENGS 25) or ENGS 36 (prerequisites ENGS 20, ENGS 22, ENGS 25), courses to be included in the area of “three-course concentration” will be numbered above ENGS/ENGG 40 and will require at least one prerequisite either from the series ENGS 20-37 or from advanced courses within the sciences. With permission, suitable advanced science courses may count within this three-course concentration. To include ENGS 86 or 88 in the three course concentration, a proposal, which includes prerequisite courses, a syllabus, learning objectives and what principles of engineering will be mastered, needs to be submitted in advance (before the fourth week of the term in which ENGS 86 or 88 will be taken) and approved by the B.E. Committee. Computer Science courses permitted in the three-course concentration are COSC 50, COSC 55-83 (except COSC 56, COSC 71, COSC 73 and COSC 74). Although the requirement is a three-course concentration, students are encouraged to enroll in four courses in their area of concentration.

ENGS - Engineering Sciences - Undergraduate Courses

To view Engineering Sciences Undergraduate requirements, click here. (p. 258)

To view Engineering Sciences Graduate requirements, click here. (p. 765)

To view Engineering Sciences Graduate courses, click here. (p. 769)

ENGS 1 - Everyday Technology

Instructor: Davis

This course is intended to take the mystery out of the technology that we have grown to depend on in our everyday lives. Both the principles behind and examples of devices utilizing electricity, solid and fluid properties, chemical effects, mechanical attributes and other topics will be discussed. In the associated lab project, students will dissect, analyze, (and possibly revive!) a broken gadget or appliance of their choosing. This course has no prerequisite, but enrollment is limited to 50 students.

Distributive: TLA

ENGS 1.01 - Mathematical Concepts in Engineering

Instructor: P. Taylor

This course introduces prospective engineering students to mathematical concepts relevant in engineering while emphasizing the solving of engineering problems rather than mathematical derivations and theory. All topics are driven by engineering applications taken directly from core engineering courses. The course includes hands-on laboratory exercises as well as a thorough introduction to Matlab.

Distributive: Dist:TAS

ENGS 2 - Integrated Design: Engineering, Architecture, and Building Technology

Instructor: Wilson

An introduction to the integrated design of structures and the evolving role of architects and engineers. The course will investigate the idea that design excellence is very often the result of deep collaboration between engineers, architects, and builders and that it is only in relatively recent history that a distinction between these areas of expertise has existed. The historical, social, and architectural impact of structures will be explored and several structures and their designers will be studied in depth. Enrollment limited to 50 students. No Prerequisite.

Distributive: TAS

ENGS 3 - Materials: The Substance of Civilization

Instructor: Lasky, Bish

With the exception of ideas and emotions, materials are the substance of civilization. From the "Iceman's" copper ax to indium phosphide gallium arsenide semiconductor lasers, materials have always defined our world. We even name our epochs of time based on the dominant material of the age: Stone Age, Bronze Age, Iron Age and now Silicon Age. In addition to discussing the nature and processing of metals, polymers, ceramics, glass and electronic materials, this course will analyze the dramatic developments in civilization directly resulting from advances in such materials. The text Stephen Sass's The Substance of Civilization will be used in the course. Enrollment limited to 50 students per section. No Prerequisite.

Distributive: TAS

ENGS 4 - Technology of Cyberspace

Instructor: Taylor

This course will cover some basic concepts underlying the 'information superhighway.' The technologies of high
speed networking have stimulated much activity within the federal government, the telecommunications and computer industries, and even social science and popular fiction writing. The technical focus will be on communications technologies, information theory, and the communications requirements of video (standard and ATV), speech (and other audio), text data. Social economic and policy issues will be an integral part of the course. Enrollment limited to 30 students.

Distributive: TAS

**ENGS 5 - Healthcare and Biotechnology in the 21st Century**

Instructor: Rosen, Robbie

Technologies that will impact healthcare in the 21st century are explored, including biology, robotics, and information. Biotechnologies are explored that will be used for the treatment of diseases and the regeneration of missing organs and limbs. Robotics will be explored that will replace parts. This will include artificial organs, robots as replacement for human parts, the human genome project, gene therapy, biomaterials, genetic engineering, cloning, transplantation (auto, allograft, xenograft), limb regeneration, man-machine interfaces, robotics, prosthetic limbs, artificial organs and joints. This section will also cover ethical issues related to the above topics and issues regarding the FDA and the approval of new medical treatments. We will discuss going beyond normal with respect to the senses, muscles and creating wings. Enrollment is limited to 75 students. No Prerequisite.

Distributive: TAS

**ENGS 6 - Technology and Biosecurity**

Instructor: Hoyt

This course will introduce students to the technologies used to combat biological threats to security ranging from pandemic influenza to bioterrorism. In particular, this course will explore the dual role that technology plays in both enhancing and destabilizing security. Specific technologies covered include the use of nanotechnology, synthetic biology, and mass spectrometry. The course considers questions such as: Where can technological solutions have the greatest impact? When can defensive technologies have offensive applications? And, how can we balance the need to regulate potentially dangerous technologies against the need for academic freedom and high tech innovation? This course has no prerequisite, but enrollment is limited to 30 students.

Distributive: TAS

**ENGS 7 - First-Year Seminars in Engineering Sciences**

**ENGS 8 - Materials in Sports Equipment**

Sports equipment uses almost every type of material imaginable, as athletes and designers leverage state-of-the-art materials to maximize human efficiency, performance, comfort and safety. As something most people have some familiarity with, active Dartmouth students in particular, it is an excellent subject for an exploration of material characteristics, selection, design, and failure. This course will introduce materials science concepts in a way that is accessible and useful for the non-major. It will exercise student's critical thinking, quantitative and communication skills. In-class demonstrations will allow students to explore material behavior and differences between materials 'hands-on' and possible field trips or lab visits will introduce them to some engineering test methods. Finally, this course will demystify terms used by manufacturers and salespeople, and help students, as athletes and consumers, make informed equipment choices. Enrollment is limited to 40 students. No prerequisite.

Distributive: TAS

**ENGS 9 - Everyday Technology**

Instructor: Davis

This course is intended to take the mystery out of the technology that we have grown to depend on in our everyday lives. Both the principles behind and examples of devices utilizing electricity, solid and fluid properties, chemical effects, mechanical attributes and other topics will be discussed. In the associated lab project, students will dissect, analyze, (and possibly revive!) a broken gadget or appliance of their choosing. This course has no prerequisite, but enrollment is limited to 50 students.

Distributive: Dist:TLA

**ENGS 11 - The Way Things Work: A Visual Introduction to Engineering**

Instructor: Macaulay

Students will explore and compare engineered systems and processes in the world around them. They will sketch and build models to help them understand and communicate. Each week, students will learn new sketching and visual communication techniques that they will use to visually explain how engineered systems or processes work. Students will also maintain a sketchbook to practice new sketching techniques. After being exposed to some basic engineering principles students will further investigate specific engineered systems through sketching, research, disassembly, and building. They will communicate their findings visually.

Prerequisite: None

Distributive: None

**ENGS 12 - Design Thinking**

Instructor: Robbie, Korsunskiy
A foundation course on the cognitive strategies and methodologies that form the basis of creative design practice. Design thinking applies to innovation across the built-environment, including the design of products, services, interactive technology, environments, and experiences. Topics include design principles, human need-finding, formal methodologies, brainstorming, heuristics, thinking by analogy, scenario building, visual thinking, and study of experienced thinkers. Weekly projects and exercises in a variety of media provide practice and development of students' personal creative abilities. Enrollment limited to 20 students. No prerequisite.

Distributive: Dist:TAS

**ENGS 13 - Virtual Medicine and Cybercare**

Instructor: Hoyt, Rosen

There is a revolution in technology that is occurring in health care. This new technology will dramatically change how health care is delivered in the future. This course will cover topics related to the virtual human created from bits. This will include virtual reality, augmented reality and datafusion, computer simulation, advanced 3D and 4D imaging techniques, the operating room of the future, minimally invasive surgery, space medicine, teleoperations, telemedicine and telesurgery, internet 2 and cyber-space, artificial intelligence and intelligent agents applied to medicine, and the national library of medicine virtual human project. We will also discuss the FDA approval of computer simulators, robotic surgeons, and the ethics of robots doing surgery. In addition we will discuss the medical library of the future, teleconferencing and the use of interactive media in healthcare education. We will also discuss computerized patient records (CPR) and clinical information systems. Enrollment limited to 48. No prerequisite.

Distributive: TAS

**ENGS 14 - The Science and Engineering of Music**

Instructor: Hartov

Almost everyone enjoys some forms of music, but few are familiar with the science and engineering that make music possible. In this course students are invited to explore the making of music from technical and scientific perspectives. In particular this covers aspects of acoustics, the workings of musical instruments, and selected aspects of musical theory and audio engineering. Students in the course explore music with many in-class demonstrations and hands-on experimentation. Course topics include how sound is recorded and stored digitally, the composition of sound from a musician's point of view (pitch, chords, harmony and melody) and from an engineer's point of view (frequency, harmonics). The relationships between these two perspectives are then explored. This course does not require proficiency in either music or any particular instrument. Enrollment is limited to 75 students.

Distributive: TAS

**ENGS 15 - Undergraduate Investigations in Engineering**

An original investigation in a phase of science or engineering under the supervision of a member of the staff. Students electing the course will be expected to have a proposal approved by the department chair and to meet weekly with the staff member supervising the investigation. The course is open to undergraduates who are not majoring in engineering. A report describing the details of the investigation must be filed with the department chair and approved at the completion of the course.

Prerequisite: Permission of department chair (a one-page proposal submission is required and must be submitted for approval prior to the end of the term preceding the term in which the course will be taken).

Distributive: Dist:TAS

**ENGS 15.01 - Senior Design Challenge I**

Instructor: Korsunskiy

The Senior Design Challenge is a two-term course designed to serve as a senior capstone experience for Dartmouth students across all majors. Students in this project-based course will practice human-centered design, developing not only the skills, but also the creative confidence to apply their liberal arts education to make a positive difference in the world beyond Dartmouth. Students will work in interdisciplinary teams on projects that will be determined in partnership with organizations in the Upper Valley. The project topics will be designed to give students some flexibility in determining the specific problem on which to focus, while ensuring client responsiveness and substantial fieldwork opportunities. Enrollment is limited.

Students are awarded one course credit for successful completion of this course upon completion of ENGS 15.02. Students register for ENGS 15.01 and receive a grade of “ON” (ongoing) at the end of the term. Students then register for ENGS 15.02 the subsequent term to complete the coursework. A final grade will replace the “ON” in ENGS 15.01 upon completion of ENGS 15.02.

Distributive: Dist:TAS

**ENGS 15.02 - Senior Design Challenge II**

Instructor: Korsunskiy

The Senior Design Challenge is a two-term course designed to serve as a senior capstone experience for Dartmouth students across all majors. Students in this
ENGS 15.04 - Computing Before Electronics

Instructor: Frost

In this course we explore the computational techniques by which mankind survived and thrived before the advent of the integrated circuit and the electronic calculator. From the commerce of early civilizations until the last third of the 20th century, there was a progression of mechanical calculating gadgets, some simple – some quite ingenious and complex. Among these we will study sliderules, planimeters, integrators, digital adding machines, nomographs, and other special charts and graphical techniques. We will also cover celestial navigation, which in its day was a particularly important application of calculation. Laboratory sessions will give students direct experience using antique and period calculating instruments, plus the opportunity to create their own calculating devices.

Distributive: Dist:TAS

ENGS 16 - Biomedical Engineering for Global Health

The past 20 years have seen an incredible amount of high-tech medical advances, but to what degree have these impacted the health of those living in the developing world? The potential for years of life gained through biomedical technology is tremendous in some of the world’s poorest regions, but appropriate design requires an understanding of the clinical, political, and cultural landscape, and a clean-slate approach to developing low-cost, effective tech. This course offers an exciting opportunity to understand how to design solutions for the most important health challenges of the developing world. Learning goals will be achieved through hands-on experience, including: a laboratory component where we deconstruct, design and build a low-cost medical device, case study discussions on successful global health innovations, and several “teardowns” of common medical devices. Lecturers from Thayer, Tuck, TDC and Geisel will cover complimentary topics in clinical medicine, healthcare delivery, innovation and medical imaging. A final project will bring everything together by addressing a real health problem with a prototype of a low-cost tech solution. Enrollment is limited to 40 students.

Distributive: TAS

ENGS 15.03 - The Ecosystem for Bio-Innovation

Instructor: Cooper

We are living through biology’s century: global pandemics; $100 genomes; bio-reactor beef; plastic-eating engineered microbes…and we still have 80 years to go.

This course is built around the basic idea that biotechnology is changing the world, but will only reach its greatest potential—technologically, economically, ethically—if we learn to guide it as a complex ecosystem of inter-dependent actors. Biotech hubs thrive where there is a dense milieu of intellectual and financial capital from top universities, academic medical centers, entrepreneurs, and venture capital. This course aims to ensure that future leaders—physicians, scientists, journalists, lawyers, financiers, patients, legislators—understand the ways that scientific advances, innovation policy, and entrepreneurship feed one another.

Taught by a biotech venture capital investor, this is an inter-disciplinary course designed to empower students with the context and confidence to go deeper than news headlines that fail to see both the ‘forest’ and the ‘trees’. The term will unfold in a cumulative manner. We begin with a diagnosis and overview of the Ecosystem for Bio-Innovation, and then go deeper into the institutions and players that cross-pollinate within this ecosystem, focusing on healthcare (e.g. mRNA vaccines, genetic disease treatments) while making note of biotechnology’s far broader impact on our society and planet. Each week of the course will focus on one theme, while also introducing new intellectual frameworks, plus real-world cases to help concretize key concepts. We will bring material to life through a combination of lecture, Socratic learning, student projects, guest speakers, and in-class debates, always infusing our time together with a sense of the scientific, economic, political, and ethical choices at stake. Final projects will allow students to critically apply coursework toward a cutting-edge area of biotechnology.

Distributive: Dist:TAS

ENGS 17 - Electronics for Musicians

Instructor: Hartov

From public address systems to recording performances and the creation of synthetic sounds, electronic technology permeates the making of music in many ways. In this course we propose to familiarize students with the
technology behind the production of music. The course will cover analog electronics from microphone to speaker, digital electronics from the acquisition of sounds, their digital processing and their digital synthesis. This course is targeted to undergraduate students in music but is open to all students with an interest in the topic. Students will learn through in-class exploration and through labs. The course will conclude with students completing a project of their choice demonstrating their mastery of the subject.

Distributive: TLA


Instructor: Levin, Wegst

A hands-on course in which students working in groups build and assemble simple musical instruments with the aim of understanding how materials, technologies, craftsmanship, and cultural knowledge interact in the conception, design, and production of diverse instruments around the world. Merging the methodologies of engineering and materials science with the approaches of arts and humanities, the course explores from an interdisciplinary perspective the social meanings and powers ascribed to musical instruments, and the way that instruments have come to function as potent symbols of personal, cultural, and political identity.

Cross-Listed as: COCO 020 MUS 17.04

Distributive: WCult:NW

**ENGS 18 - System Dynamics in Policy Design and Analysis**

Instructor: Peterson

This course introduces systems dynamics, an approach to policy design and analysis based upon feedback principles and computer simulation. The approach is useful for gaining an understanding of the underlying structural causes of problem behavior in social, economic, political, environmental, technological, and biological systems. Goals of this approach are to gain better understanding of such problem behaviors and to design policies aimed at improving them. Lectures and exercises illustrate applications of the approach to real, current problems such as urban decay, resource depletion, environmental pollution, product marketing and distribution, and agricultural planning in an expanding population. The similarity and transferability of underlying feedback characteristics among various applications is emphasized. No prior engineering or computer science experience is necessary.

Prerequisite: MATH 3

Distributive: TAS

**ENGS 19 - Microchips in Everyday Life**

This course will be an introductory laboratory/lecture course in which students make microelectronic devices, such as transistors, diodes, resistors and capacitors in the laboratory and understand how they work in lectures. The goal of this course is for each student to obtain hands-on experience in device microfabrication and electronic measurement, as well as to provide an overview over the general trend of lithographic miniaturization and nanotechnology.

Distributive: TLA

**ENGS 19.01 - Future of Energy Systems**

Instructor: Peterson

Energy production, distribution, and use is central to human activity. In many quarters, there is growing appreciation for the nexus among energy, climate change, the environment, and economic development. This course will focus on futures of energy as they impact, and are impacted by, these drivers. The course uses model-based approaches to develop global-scale energy scenarios and to explore the potential evolution of current and potential energy options in both localized and global settings.

Distributive: Dist:TAS

**ENGS 20 - Introduction to Scientific Computing**

Instructor: Shepherd (fall and winter), P. Taylor (spring)

This course introduces concepts and techniques for creating computational solutions to problems in engineering and science. The essentials of computer programming are developed using the C and Matlab languages, with the goal of enabling the student to use the computer effectively in subsequent courses. Programming topics include problem decomposition, control structures, recursion, arrays and other data structures, file I/O, graphics, and code libraries. Applications will be drawn from numerical solution of ordinary differential equations, root finding, matrix operations, searching and sorting, simulation, and data analysis. Good programming style and computational efficiency are emphasized. Although no previous programming experience is assumed, a significant time commitment is required. Students planning to pursue the engineering sciences major are advised to take ENGS 20. Students considering the computer science major or majors modified with computer science should take COSC 1 and COSC 10. Enrollment is limited to 50 students. May not be taken under the non-recording option.

Prerequisite: MATH 3 and prior or concurrent enrollment in MATH 8

Distributive: TAS
ENGS 21 - Introduction to Engineering
Instructor: May (fall), Snyder (winter), Murnane (spring), Good (summer)
The student is introduced to engineering through participation, as a member of a team, in a complete design project. The synthesis of many fields involving the laws of nature, mathematics, economics, management, and communication is required in the project. Engineering principles of analysis, experimentation, and design are applied to a real problem, from initial concept to final recommendations. The project results are evaluated in terms of technical and economic feasibility plus social significance. Lectures are directed toward the problem, and experiments are designed by students as the need develops. Enrollment limited to 50 students in 15 Fall and 16 Winter; and 64 students for 16 Spring.
Prerequisite: MATH 3 or equivalent
Distributive: TAS

ENGS 22 - Systems
Instructor: Farid (fall), Trembly (winter), Scheideler (spring), Osterberg (summer)
The student is introduced to the techniques of modeling and analyzing lumped systems of a variety of types, including electrical, mechanical, reacting, fluid, and thermal systems. System input will be related to output through ordinary differential equations, which will be solved by analytical and numerical techniques. Systems concepts such as time constant, natural frequency, and damping factor are introduced. The course includes computer and laboratory exercises to enhance the students' understanding of the principles of lumped systems. Students will develop the ability to write MATLAB code. Enrollment is limited to 35 in fall and 50 students for winter and summer.
Prerequisite: MATH 13, PHYS 14, and ENGS 20
Distributive: TLA

ENGS 23 - Distributed Systems and Fields
Instructor: Sullivan (fall), Osterberg (winter), Trembly (spring)
A study of the fundamental properties of distributed systems and their description in terms of scalar and vector fields. After a summary of vector-field theory, the formulation of conservation laws, source laws, and constitutive equations is discussed. Energy and force relations are developed and the nature of potential fields, wave fields, and diffusion fields examined. A survey of elementary transport processes is given. Particular attention is given to the relation between the description of systems in terms of discrete and distributed parameters. Applications are chosen primarily from fluid mechanics, electromagnetic theory, and heat transfer. Includes a set of laboratories.
Prerequisite: ENGS 22, or equivalent
Distributive: TAS

ENGS 24 - Science of Materials
Instructor: Fang, Cullen (winter), W Li, Levey (spring), Frost, Cullen (summer)
An introduction to the structure/property relationships that govern the mechanical, the thermal, and the electrical behavior of solids (ceramics, metals, and polymers). Topics include atomic, crystalline, and amorphous structures; x-ray diffraction; imperfections in crystals; phase diagrams; phase transformations; elastic and plastic deformation; free electron theory and band theory of solids; and electrical conduction in metals and semiconductors. The laboratory consists of an experimental project selected by the student and approved by the instructor. Enrollment limited to 60 students.
Prerequisite: PHYS 14 and CHEM 5
Distributive: TLA

ENGS 25 - Introduction to Thermodynamics
Instructor: Laser (Winter), Lynd (Spring), Samkoe (Summer)
The fundamental concepts and methods of thermodynamics are developed around the first and second laws. The distinctions among heat, work, and energy are emphasized. Common processes for generating work, heat, refrigeration, or changing the physical or chemical state of materials are analyzed. The use of thermodynamic data and auxiliary functions, such as entropy, enthalpy, and free energy, is integrated into the analysis. The numerous problems show how theoretical energy requirements and the limitations on feasible processes can be estimated. Enrollment is limited to 60 students.
Prerequisite: MATH 13, PHYS 13, ENGS 20 or COSC 1 and COSC 10
Distributive: TAS

ENGS 26 - Control Theory
Instructor: Phan (fall), Ray (spring)
The course treats the design of analog, lumped parameter systems for the regulation or control of a plant or process to meet specified criteria of stability, transient response, and frequency response. The basic theory of control system analysis and design is considered from a general point of view. Mathematical models for electrical, mechanical, chemical, and thermal systems are developed. Feedback control system design procedures are established using root-locus and frequency-response methods.
Prerequisite: ENGS 22
ENGS 27 - Discrete and Probabilistic Systems
Instructor: Cybenko

This course is an introduction to probabilistic methods for modeling, analyzing, and designing systems. Mathematical topics include the fundamentals of probability, random variables and common probability distributions, basic queueing theory, and stochastic simulation. Applications, drawn from a variety of engineering settings, may include measurement and noise, information theory and coding, computer networks, diffusion, fatigue and failure, reliability, statistical mechanics, ecology, decision making, and robust design.

Prerequisite: MATH 8 and either ENGS 20 or COSC 1 and COSC 10. PHYS 13 or CHEM 5 recommended.

ENGS 28 - Embedded Systems
Instructor: Hansen, P. Taylor

A vast number of everyday products, from home appliances to automobiles, are controlled by small embedded computers, invisible to the user. This course introduces, at an elementary level, the three basic components of all such embedded systems: sensors to measure the physical environment, actuators to produce the system behavior, and a microcontroller that processes the sensor data and controls the actuators. Topics: microcontroller architecture and programming, writing embedded software, analog- to-digital and digital-to-analog conversion, interfacing sensors and actuators, and data communication. There are daily in-class design exercises and weekly labs. Enrollment is limited.

Prerequisite: ENGS 20 or COSC 1 and COSC 10. PHYS 13 or CHEM 5 recommended.

ENGS 30 - Biological Physics
Instructor: Samkoe

Introduction to the principles of physics and engineering applied to biological problems. Topics include the architecture of biological cells, molecular motion, entropic forces, enzymes and molecular machines, and nerve impulses.

Prerequisite: CHEM 5, PHYS 13 and PHYS 14 (or equivalent). PHYS 14 (or equivalent) may be taken concurrently. Students with strong quantitative skills who have taken PHYS 3 and PHYS 4 can enroll with permission of the instructor.

Prerequisite: ENGS 22, or equivalent background in basic circuit theory.

ENGS 31 - Digital Electronics
Instructor: Luke (spring), Hansen (summer)

This course teaches classical switching theory including Boolean algebra, logic minimization, algorithmic state machine abstractions, and synchronous system design. This theory is then applied to digital electronic design. Techniques of logic implementation, from Small Scale Integration (SSI) through Application-Specific Integrated Circuits (ASICs), are encountered. There are weekly laboratory exercises for the first part of the course followed by a digital design project in which the student designs and builds a large system of his or her choice. In the process, Computer-Aided Design (CAD) and construction techniques for digital systems are learned. Enrollment is limited to 60 students.

Prerequisite: ENGS 20 or COSC 1 and COSC 10.

ENGS 32 - Electronics: Introduction to Linear and Digital Circuits
Instructor: Stauth (fall), Odame (winter)

Principles of operation of semiconductor diodes, bipolar and field-effect transistors, and their application in rectifier, amplifier, waveshaping, and logic circuits. Basic active-circuit theory. Introduction to integrated circuits: the operational amplifier and comparator, to include practical considerations for designing circuits with off-the shelf components. Emphasis on breadth of coverage of low-frequency linear and digital networks, as well as on high order passive and active filter design. Laboratory exercises permit "hands-on" experience in the analysis and design of simple electronic circuits. The course is designed for two populations: a) those desiring a single course in basic electronics, and b) those that need the fundamentals necessary for further study of active circuits and systems.

Prerequisite: ENGS 22, or equivalent background in basic circuit theory.

ENGS 33 - Solid Mechanics
Instructor: Snyder (fall), Y. Li (winter and summer)

After a brief review of the concepts of rigid body statics, the field equations describing the static behavior of deformable elastic solids are developed. The concepts of stress and strain are introduced and utilized in the development. Exact and approximate solutions of the field equations are used in the study of common loading cases, including tension/compression, bending, torsion, pressure, and combinations of these. In the laboratory phase of the course, various methods of experimental solid mechanics are introduced. Some of these methods are used in a project in which the deformation and stress in an actual load system are determined and compared with theoretical
predictions. The course includes several computer exercises designed to enhance the student's understanding of the principles of solid mechanics.

Prerequisite: MATH 13 and PHYS 13

Distributive: TLA

**ENGS 34 - Fluid Mechanics**

Instructor: Meyer

We interact with fluids every day. From complex systems such as cars, airplanes, and chemical plants, to simple devices like a bike pump, our world is filled with engineering applications that make use of the principles of fluid mechanics. This course surveys the fundamental concepts, phenomena, and methods in fluid mechanics, as well as their application in engineered systems and in nature. Emphasis is placed on the development and use of conservation laws for mass, momentum, and energy, as well as on the empirical knowledge essential to the understanding of many fluid dynamic phenomena. Examples are drawn from mechanical, chemical, civil, environmental, biomedical, and aerospace engineering.

Prerequisite: ENGS 23 or equivalent

Distributive: TLA

**ENGS 35 - Biotechnology and Biochemical Engineering**

Instructor: Gerngross

A consideration of the engineering and scientific basis for using cells or their components in engineered systems. Central topics addressed include kinetics and reactor design for enzyme and cellular systems; fundamentals, techniques, and applications of recombinant DNA technology; and bioseparations. Additional lectures will provide an introduction to metabolic modeling as well as special topics. The course is designed to be accessible to students with both engineering and life-science backgrounds. This course has a graduate section, see ENGS 160. Enrollment is limited to 25 students.

Prerequisite: MATH 3, CHEM 5, BIOL 12 or BIOL 13 or permission

Distributive: TLA

**ENGS 36 - Chemical Engineering**

Instructor: Lee

This course will expose students to the fundamental principles of chemical engineering and the application of these principles to a broad range of systems. In the first part of the course, aspects of chemical thermodynamics, reaction kinetics, and transport phenomena will be addressed. These principles will then be applied to a variety of systems including industrial, environmental, and biological examples.

Prerequisite: ENGS 22, ENGS 25; CHEM 5

**ENGS 37 - Introduction to Environmental Engineering**

Instructor: Roisin

A survey of the sources, measurement techniques, and treatment technologies relating to environmental pollution resulting from the activities of humans. The course will be technology-focused, but will also touch on topics related to the implementation of technology in the real world such as public perception, policy and legislation, and choosing between technological alternatives. Technological and other issues will be addressed relating to water pollution, air pollution, solid wastes, and the fate and transport of pollutants in the environment. Consideration of each area will include general background and key concepts, detailed design examples of importance in the area, and case studies/current topics. The course will include guest lectures.

Prerequisite: MATH 3 and CHEM 5, or equivalent, or permission

Distributive: TAS

**ENGS 41 - Sustainability and Natural Resource Management**

Instructor: Roisin

Natural resources sustain human productivity. Principles of scientific resource management are established, including mathematical model development based on material balances and decision making based on dynamical and stochastic systems. Three generic categories of resource are analyzed: exhaustible, living, and renewable. In the first category we emphasize the life-cycle of exploitation including exhaustion, exploration and substitution. In the living category we explore population dynamics under natural and harvested regimes, for fisheries, fowl and forests. The renewable case of water is treated in terms of quantity and quality. Finally, air quality management is considered through the lens of assimilative capacity. Throughout, the intersection of natural processes and economic incentives is explored with dynamical systems theory, computer simulations, and optimization techniques. Case studies illustrate contemporary management problems and practices.

Prerequisite: MATH 23 or ENGS 22, and ENGS 37

Distributive: Dist:TAS

**ENGS 43 - Environmental Transport and Fate**

Instructor: Renshaw

Introduction to movement and transformation of substances released into the natural environment. Fundamentals of advection, dispersion, and reaction. Aggregation and parameterization of various mixing processes leading to dispersion at larger spatial and
temporal scales. Importance of inhomogeneity, anisotropy, and stratification in natural media. Basic principles are illustrated by application to atmospheric, ground water, river, estuarine, coastal, and oceanic pollution problems. Case studies include urban smog, acid rain, Chernobyl fallout, and stratospheric ozone depletion.

Prerequisite: MATH 13; ENGS 37 or permission

Cross-Listed as: EARS 66.01
Distributive: Dist:TAS

ENGS 44 - Sustainable Design
Instructor: Kawiaka
An interdisciplinary introduction to the principles of design for sustainability, with emphasis on the built environment. Through lectures, readings, discussions, and a major design project, students will learn to design buildings and other infrastructure with low to no impact on the environment. Emphasis is on creative thinking, strategies for managing the complexity of the product life-cycle of the infrastructure, and the thorough integration of human and economic aspects in the design. Homework and project activities provide practice in relevant engineering analyses. Enrollment is limited to 20 students

Prerequisite: ENGS 21 and ENGS 22 or SART 65
Distributive: TAS

ENGS 46 - Advanced Hydrology
Instructor: Renshaw
A survey of advanced methods used to analyze the occurrence and movement of water in the natural environment. The watershed processes controlling the generation of runoff and streamflow are highlighted, and used to explore the transport and fate sediment and contaminants in watersheds. Throughout the course the ideas and concepts are explored through the primary literature, with emphasis given to methods of observation, measurement, data analysis, and prediction.

Prerequisite: MATH 3 and EARS 16 or EARS 33 or BIOL 53 or ENGS 43 or permission of instructor
Cross-Listed as: EARS 76
Distributive: TAS

ENGS 50 - Software Design and Implementation
Instructor: S. Taylor
Techniques for building large, reliable, maintainable, and understandable software systems. Topics include UNIX tools and filters, programming in C, software testing, debugging, and teamwork in software development. Concepts are reinforced through a small number of medium-scale programs and one team programming project.

Prerequisite: COSC 10 or equivalent.
Cross-Listed as: COSC 050
Distributive: Dist:TLA

ENGS 52 - Introduction to Operations Research
Instructor: Santos
Basic concepts of optimization are introduced as aids in systematic decision-making in engineering contexts. Deterministic optimization is developed in the form of linear and integer programming and their extensions. Probabilistic models are introduced in terms of Markov chains, queuing and inventory theory, and stochastic simulation. The course emphasizes the application of these methods to the design, planning, and operation of complex industrial and public systems.

Prerequisite: MATH 8 and MATH 22 or equivalent
Distributive: TAS

ENGS 56 - Introduction to Biomedical Engineering
Instructor: Hoopes
This course will survey applications of engineering principles to medical diagnosis/treatment of disease, monitoring/measurement of physiological function, and rehabilitation/replacement of body dysfunction. Case studies will be used to highlight how engineering has advanced medical practice and understanding. Examples will be drawn from bioinstrumentation, bioelectricity, biotransport, biomaterials, and biomechanics. While investigations will focus primarily on the engineering aspects of related topics, issues surrounding patient safety, public policy and regulation, animal experimentation, etc. will be discussed as appropriate.

Prerequisite: ENGS 22, PHYS 13 and PHYS 14 (PHYS 14 may be taken concurrently)
Distributive: Dist:TAS

ENGS 57 - Intermediate Biomedical Engineering
Instructor: Halter
The basic biomedical engineering concepts introduced in ENGS 56 will serve as the foundation for exploring technology in a clinical environment. The specific clinical setting to be explored will be the operating room (OR). This course will introduce a variety of surgical procedures and technologies from an engineering perspective. Areas of focus will include patient monitoring, biophysical tissue properties, general surgical instrumentation, tissue cutting and binding technologies, and optical visualization technologies. In addition, state-of-the-art procedures employing image-guided, minimally invasive, laparoscopic, and robot-assisted surgical technologies will be discussed. The first half of the term will include weekly seminars presented by surgeons describing a particular
surgical procedure, the technologies currently used and a surgeon's "wish-list". During the second half of the term, students will undertake a design project aimed at developing a technology that addresses a specific need within the OR. Enrollment is limited to 18 students.

Prerequisite: ENGS 23 and ENGS 56 or equivalent
Distributive: TAS

**ENGS 58 - Introduction to Protein Engineering**

Engineered biomolecules are powering an array of innovations in biotechnology, and this course will familiarize students with key developments in the field. An overview of foundational principles will cover concepts such as the central dogma of biology, atomic scale forces in protein structures, and protein structure-function relationships. Strategies for modifying protein structures will be surveyed, with a particular emphasis on genetic techniques. The development of proteins with practical utility will be highlighted using case studies.

Prerequisite: ENGS 35 or CHEM 41
Distributive: DIST: TAS

**ENGS 59 - Basic Biological Circuit Engineering**

Instructor: Sarpeshkar

This course will provide a comprehensive introduction to the design, modeling, and experimental implementation of synthetic bio-molecular circuits in living cells at an undergraduate level. Simple but sophisticated synthetic biological circuits will be implemented and tested in microbial cells in the laboratory including those involving molecular amplification, regulatory feedback loops with biological nonlinearities, and robust analog circuits. Computer aided design, modeling, and simulation will use CADENCE, an industry standard electronic circuit design laboratory tool. It will show them how to design, model, and fit actual experimental biological data such that engineering circuit theory and biological experiment agree.

Distributive: Dist:TLA

**ENGS 60 - Introduction to Solid-State Electronic Devices**

Instructor: Fossum

In this course the physical and operational principles behind important electronic devices such as the solar cell and transistor are introduced. Semiconductor electron and hole concentrations and carrier transport are discussed. Carrier generation and recombination including optical absorption and light emission are covered. P-N junction operation and its application to diodes, solar cells, LEDs, and photodiodes is developed. The field-effect transistor (FET) and bipolar junction transistor (BJT) are then discussed and their terminal operation developed. Application of transistors to bipolar and CMOS analog and digital circuits is introduced. The course is primarily intended for students interested in electronics, including digital, analog, power and energy, both at component and integrated circuit levels. The course may also be useful to students interested in electronic materials, device microfabrication and communications.

Prerequisite: ENGS 23
Distributive: TLA

**ENGS 61 - Intermediate Electrical Circuits**

Instructor: Stauth

This course will build on ENGS 32, providing a foundation for transistor-level analog and digital circuit design. The course will start with an introduction to the semiconductor industry and how it has dramatically altered the modern way of life, resulting in diverse technologies such as telecommunications, lighting and transportation. This will lead into basic semiconductor theory and CMOS device models, two-port linearized models, and finally single- and multi-stage amplifiers with applications motivated by wireless communications and biomedical instrumentation. The second half of the class will focus on digital circuits. Topics will include designing and optimizing complex static CMOS devices in terms of energy, delay, and area of computational blocks and memory arrays. The class will have weekly labs and a final project that will utilize modern computer-aided tools. The course will prepare the student for advanced study of highly-integrated electrical circuits.

Prerequisite: ENGS 32
Distributive: TLA

**ENGS 62 - Microprocessors in Engineered Systems**

Instructor: S. Taylor

Microprocessors and microcomputers are central components in an ever-increasing number of consumer, industrial, and scientific products. This course extends the experimental design methodology developed in Engs 50 to state-of-the-art System-on-Chip (SoC) architectures and explores the principles behind advanced embedded systems. SoC devices are highly-integrated components that combine high-performance multi-core processors, with Field Programmable Gate Array (FPGA), and a broad selection of industry standard peripheral interfaces -- all within a single chip. Students are introduced to concepts of event-driven finites state machines, peripheral interfacing via the processor and the FPGA fabric, and advanced hardware-software co-design tools that speed the design process. The course is based on a sequence of laboratory projects that incorporate SoC programming practices and
debugging strategies, interrupt handling, FPGA and bus interfaces, and attached peripheral devices.

Prerequisite: ENGS 50
Distributive: Dist:TLA

**ENGS 64 - Engineering Electromagnetics**

Instructor: Shubitidze

Conceptual development, techniques and engineering applications in electrostatics, magnetostatics and magnetic induction; displacement current and Maxwell’s equations; transmission line analysis; propagation, reflection, refraction and dispersion of electromagnetic waves.

Prerequisite: ENGS 30 or equivalent.
Distributive: TAS

**ENGS 65 - Engineering Software Design**

Instructor: Santos

As a successor to ENGS 20, this course covers intermediate topics in programming and software design with an emphasis on engineering applications. Students will learn software design principles and basic data structures. Topics covered will include object-oriented design, user interface design, lists, stacks, queues, binary trees, hash tables, and simulation. Students will learn techniques for developing maintainable, extensible, and understandable software.

Prerequisite: ENGS 20 or COSC 1 and COSC 10
Distributive: TAS

**ENGS 66 - Discrete Mathematics in Computer Science**

Instructor: Jayanti (fall) Joosten (winter)

This course develops the mathematical foundations of computer science that are not calculus-based. It covers basic set theory, logic, mathematical proof techniques, and a selection of discrete mathematics topics such as combinatorics (counting), discrete probability, number theory, and graph theory. The mathematics is frequently motivated using computer science applications.

Prerequisite: COSC 1, ENGS 20, or placement through the Advanced Placement exam
Cross-Listed as: COSC 030
Distributive: Dist:QDS

**ENGS 67 - Programming Parallel Systems**

Multi-core processors are now ubiquitous in most personal computers. These are the fundamental computer-engineering building blocks for high-performance servers, blade farms, and cloud computing. In order to utilize these devices in large systems they must be interconnected through networking and collectively programmed. This hands-on system-engineering course offers students the opportunity to explore problem-solving techniques on a high-performance multi-computer containing quad-core processors. The course involves weekly programming laboratories that teach POSIX thread, UDP and TCP network, and MPI style programming techniques. These techniques are explored in the context of scalable problem solving methods applied to typical problems in science and engineering ranging from client-server sensing and data repositories, to numerical methods, gaming and decision support. All laboratories will be conducted in the C programming language and proficiency in C is required. Enrollment is limited to 30 students.

Prerequisite: ENGS 20 or COSC 50 (formerly COSC 23)
Cross-Listed as: COSC 63

Distributive: TLA

**ENGS 68 - Introduction to Communication Systems**

Instructor: Testorf

This course provides an introduction to communication systems. The focus is on the deterministic aspects of analog and digital systems. The student is introduced to modeling and analyzing signals in the time and frequency domains. Modulation techniques are addressed as well as, sampling, multiplexing, line coding, pulse shaping. Recent developments in communication systems are briefly discussed.

Prerequisite: ENGS 22, ENGS 27 and ENGS 92 strongly recommended.
Distributive: Dist:TAS

**ENGS 69 - Smartphone Programming**

Instructor: Yang

This course teaches students how to design, implement, test, debug and publish smartphone applications. Topics include development environment, phone emulator, key programming paradigms, UI design including views and activities, data persistence, messaging and networking, embedded sensors, location based services (e.g., Google Maps), cloud programming, and publishing applications. Concepts are reinforced through a set of weekly programming assignments and group projects. Enrollment is limited to 50 students.

Prerequisite: COSC 10
Cross-Listed as: COSC 65, COSC 165
Distributive: TAS

**ENGS 71 - Structural Analysis**

Instructor: May

An introduction to the behavior of structural systems (including examples of buildings, space structures, and
mechanical systems), with an emphasis on modeling and approximating behavior. Classical and computational analysis methods for structural load flow through basic three-dimensional structures; methods of approximating the response of planar structures; methods of determining deformations in planar, statically determinate structure; actions and deformations in statically indeterminate structures, using both flexibility/compatibility methods and stiffness/equilibrium methods (including an introduction to matrix methods). A structural system of choice will be redesigned to improve performance.

Prerequisite: ENGS 20 or COSC 1 and COSC 10 and ENGS 33

Distributive: TAS

**ENGS 72 - Applied Mechanics: Dynamics**

Instructor: Kokko

The fundamentals of dynamics with emphasis on their application to engineering problems. Newtonian mechanics including kinematics and kinetics of particles and rigid bodies, work, energy, impulse, and momentum. Intermediate topics will include Lagrange's equations, energy methods, Euler's equations, rigid body dynamics, and the theory of small oscillations.

Prerequisite: ENGS 22

Distributive: TAS

**ENGS 73 - Materials Processing and Selection**

In this course the basic concepts of materials science introduced in ENGS 24 are applied to a variety of materials problems and processes. The course will treat processes and principles relevant to both mechanical and electrical engineering applications. Topics include solidification and crystal growth, joining and bonding techniques, deformation processing, surface coatings and thin film deposition, polymer processing, composite materials, magnetic and dielectric materials, powder metallurgy and ceramics processing, materials selection, failure processes, and quality control. The course will involve laboratory exercises and field trips to local industry. Materials applications will be considered on a case study basis, including aerospace and automotive structures, consumer goods, and high performance sports equipment, electric components, VLSI circuit fabrication and packaging.

Prerequisite: ENGS 24 and ENGS 33 or equivalent

Distributive: TLA

**ENGS 75 - Product Design**

Instructor: Robbie

A laboratory course on human-centered product design. A series of design projects form the vehicle for exploring creative strategies for optimizing product design for human use. The course focus includes need-finding, concept development, iterative modeling, prototyping and testing. The goal is synthesis of technical requirements with aesthetic and human concerns. Includes presentations by visiting professional designers. Enrollment is limited to 20 students. Can be used for A.B. course count and Engineering Sciences major elective, but may not be used to satisfy B.E. requirements other than design credit

Prerequisite: ENGS 21 or ENGS 89

Distributive: TAS

**ENGS 76 - Machine Engineering**

Instructor: Halter

An introduction to the analysis and synthesis of mechanical components and systems. Lecture topics focus on design and analysis of mechanical components subject to static and fatigue loading conditions, deformation, and buckling. Power transmission shafting, bearings, and gears will be studied in detail. A survey of design requirements for other components - springs, screws, belts, clutches, brakes, roller chains, and welded and riveted connections - will be provided. The class includes laboratory sessions for developing practical skills in design fabrication. A term project emphasizes the synthesis of a working machine to complete a specified task. The project involves the design or selection of components studied, and includes fabrication and demonstration of the machine. Solid modeling software is used as a design tool. Enrollment is limited to 25 students.

Prerequisite: ENGS 21, ENGS 33, and proficiency with solid modeling software

Distributive: TAS

**ENGS 84 - Reading Course**

Advanced undergraduates occasionally arrange with a faculty member a reading course in a subject not occurring in the regularly scheduled curriculum. This course can only be elected once and either ENGS 84 or 85 may be used toward the Engineering Sciences major, but not both.

Prerequisite: Permission of the department chair.

(Proposed courses should include a full syllabus, resources and student evaluation methods and must be submitted for approval prior to the end of the term preceding the term in which the course will be taken.)

**ENGS 85.04 - Hybrid Powertrain System Design**

The course involves a term-long project designing components and subsystems for a hybrid powertrain system. With information sessions and interactive brainstorming meetings, the students will gain practical understanding of the iterative design process, including prototyping and testing. In the second part of the course, this knowledge will be sequentially applied to design components of three specific subsystems of the powertrain,
ENGS 85.05 - Biological Circuit Engg I

This course will provide a comprehensive introduction to the design, modeling, and experimental implementation of synthetic bio-molecular circuits in living cells. Simple synthetic biological circuits will be implemented and tested in microbial cells in the laboratory including those involving regulatory feedback loops and robust analog circuits. Computer aided design, modeling, and simulation will use CADENCE, an industry standard electronic circuit design tool.

ENGS 85.06 - Biological Circuit Engg II

This course will provide advanced techniques for the design, modeling, and experimental implementation of complex synthetic biological circuits. Advanced & complex synthetic circuits will be designed and tested in bacteria in the laboratory. Computer aided design, modeling, and simulation will use CADENCE, an industry standard electronic circuit design tool. Applications of synthetic biology to medicine and biotechnology will be discussed. In addition, the students will be expected to design a synthetic biological circuit with feedback and control techniques for a class project.

ENGS 85.07 - Practical Electrified Vehicle Engineering

Implementation of electric vehicles, including hybrid-electric vehicles (HEVs), battery electric vehicles (BEVs), and plug-in hybrid electric vehicles (PHEVs) requires a wide range of engineering skills. This course focuses on practical aspects of this challenge that are rarely addressed in standard engineering curricula, including high-power wiring, circuit protection, electrical safety, and battery system safety. The course is designed to be accessible to both electrical and mechanical engineers. It draws on principles from both fields and fills in some of the gaps between the usual fields of expertise of each group, enabling them to work together more effectively.

Distributive: Dist:TAS

ENGS 85.08 - Embedded Systems

Instructor: Hansen, P. Taylor

A vast number of everyday products, from home appliances to automobiles, are controlled by small embedded computers, invisible to the user. This course introduces, at an elementary level, the three basic components of all such embedded systems: sensors to measure the physical environment, actuators to produce the system behavior, and a microcontroller that processes the sensor data and controls the actuators. Topics: microcontroller architecture and programming, writing embedded software, analog- to-digital and digital-to-analog conversion, interfacing sensors and actuators, and data communication. There are daily in-class design exercises and weekly labs. Enrollment for this initial offering is limited to 12 students.

ENGS 85.09 - Introduction to Computational Materials Science and Engineering

Instructor: Hautier

Computational modeling in materials science is a powerful tool that allows discovery of new materials and exploration of materials theory. This course introduces the use of computational modeling to understand and predict materials behavior, properties and processes. The course will introduce a series of common materials modeling approaches from molecular dynamics to Monte-Carlo simulations and Density Functional Theory. All methods will be illustrated using use cases from various fields of materials science (e.g., Li-ion batteries, structural alloys, ...). The students will learn to apply these methods hands-on on specific problems writing code and using open-source codes. A strong emphasis will be on the critical assessment of the limits of the models.

ENGS 86 - Independent Project

An individual research or design project carried out under the supervision of a member of the staff. Students electing this course will be expected to carry out preliminary reading during the preceding term. A major written report and oral presentation will be submitted at the completion of the course. ENGS 86 may be counted as an elective in the major if ENGS 89 is taken as the culminating experience. Only one of either ENGS 86 or 88 may be used in satisfaction of the combined A.B. major and B.E. degree requirements.

Prerequisite: Senior standing in the engineering sciences major or Bachelor of Engineering standing and permission of the department chair is required. (One-page proposal submission required and must be submitted for approval prior to the end of the term preceding the term in which the course will be taken.)

ENGS 87 - Undergraduate Investigations

An original investigation in a phase of science or engineering under the supervision of a member of the staff. Students electing the course will be expected to carry out preliminary reading during the preceding term and to meet weekly with the staff member supervising the investigation. The course is open to qualified undergraduates with the consent of the department chair. A report describing the details of the investigation must be filed with the department chair and approved at the completion of the course. May not be used to satisfy any A.B. major or B.E. degree requirements.
Students are awarded one course credit for successful completion of this course at the end of the second term of work. Students register for ENGS-087 and receive a grade of “ON” (ongoing) at the end of the term. Students do not register for the subsequent term. A final grade will replace the “ON” at the end of the subsequent term at which time the coursework must be completed.

Prerequisite: Permission of the department chair. (One-page proposal submission required and must be submitted for approval prior to the end of the term preceding the term in which the course will be taken.)

**ENGS 88 - Honors Thesis**

Honors version of ENGS 86. A course normally elected by honors students in one term of the senior year. The student will conduct a creative investigation suitable to the major subject under the supervision and guidance of a member of the staff. Students electing this course will be expected to begin the project work at least one term prior to electing ENGS 88 and may choose to conduct the preliminary investigation under ENGS 87. A major written report and oral presentation will be submitted at the completion of the course. ENGS 88 may be counted as an elective in the major if ENGS 89 is taken as the culminating experience. Only one of either ENGS 86 or 88 may be used in satisfaction of the combined A.B. major and B.E. degree requirements.

Prerequisite: permission of the chair of the Honors program

**ENGS 89 - Engineering Design Methodology and Project Initiation**

Instructor: Diamond, Steinhauer

This course explores elements of the engineering design process as a means of enhancing student ability in problem definition; development and evaluation of creative alternatives, application and methods of technical and economic analysis, identification and application of ethical and legal constraints, and effective presentation of technical information. Design projects are developed from specifications submitted by industry and other organizations and are pursued over the course of two quarters as a team project, 89/90. Written and oral proposal and progress report are required for the design project during the term. A project advisor is required for each design team to serve as consultant to the team's efforts. ENGS 89, is the first unit of a two-term course sequence 89/90 that must be taken consecutively.

Prerequisite: Prior to enrollment in ENGS 89, at least six engineering courses must be completed. These include ENGS 21 plus five additional courses numbered 22 to 76 (excluding 75) and 91 and above.

**ENGS 90 - Engineering Design Methodology and Project Completion**

Instructor: Diamond, Steinhauer

This course is the second unit in the two-course, team engineering design sequence 89/90. The objective of the course is to develop the student's professional abilities by providing a realistic project experience in engineering analysis, design, and development. Students continue with the design teams formed in ENGS 89 to complete their projects. Design teams are responsible for all aspects of their respective projects, which involve science, innovation, analysis, experimentation, economic decisions and business operations, planning of projects, patents, and relationships with clients. Mid-term and final oral presentations and written reports are required. A faculty member is assigned to each design team to serve as consultant to the team's efforts.

Students register for ENGS-090 and typically receive a final letter grade at the end of the term. Students who wish to take the FE Exam in the spring as part of their coursework receive a grade of “ON” (ongoing) at the end of the term. These students do not register for the subsequent term. A final grade will replace the “ON” once the FE Exam is completed.

Prerequisite: ENGS 89

**ENGS 91 - Numerical Methods in Computation**

Instructor: Shepherd

A study and analysis of important numerical and computational methods for solving engineering and scientific problems. The course will include methods for solving linear and nonlinear equations, doing polynomial interpolation, evaluating integrals, solving ordinary differential equations, and determining eigenvalues and eigenvectors of matrices. The student will be required to write and run computer programs.

Prerequisite: ENGS 20 or COSC 1 and COSC 10; ENGS 22 or MATH 23, or equivalent.

Cross-Listed as: COSC 71

Distributive: QDS

**ENGS 92 - Fourier Transforms and Complex Variables**

Instructor: Testorf

Survey of a number of mathematical methods of importance in Engineering and Physics with particular emphasis on the Fourier transform as a tool for modeling and analysis. Orthogonal function expansions, Fourier series, discrete and continuous Fourier transforms, generalized functions and sampling theory, complex functions and complex integration, Laplace, Z, and Hilbert
transforms. Computational Fourier analysis. Applications to linear systems, waves, and signal processing.
Prerequisite: MATH 46 or ENGS 22 and ENGS 23 or the equivalent
Cross-Listed as: PHYS 70
Distributive: QDS

ENGS 93 - Statistical Methods in Engineering
Instructor: Vaze, Lasky (fall), Lasky (winter)
The application of statistical techniques and concepts to maximize the amount and quality of information resulting from experiments. After a brief introductory summary of fundamental concepts in probability and statistics, topics considered will include probability distributions, sampling distributions, estimation and confidence intervals for parameters of statistical distributions, hypothesis testing, design and analysis of variance for single and multiple-factor experiments, regression analysis, estimation and confidence intervals for parameters of non-statistical models, and statistical quality control.
Prerequisite: MATH 13 or equivalent
Distributive: QDS

English and Creative Writing
Chair: Andrew McCann
Vice Chair: Aden Evens
Director of Creative Writing: Peter Orner

To view English courses, click here (p. 283).

The English Major
Requirements: The Major in English requires the successful completion of eleven major courses. Major courses, unless otherwise stated, are all courses with the ENGL (English) or the CRWT (Creative Writing) course code. These courses must meet the following distributive requirements:

1. Two courses from Group I (p. 282); two courses from Group II (p. 282); one course from Group III (p. 282); one course from Group IV (p. 282).
2. Two courses from the Literary History sequence (ENGL 1 (p. 283), ENGL 2 (p. 283), ENGL 3 (p. 283)). These courses may also satisfy Course Group requirements.
3. One Junior Colloquium (p. 306) (ENGL 61 – ENGL 65). This course may also satisfy a Course Group requirement.
4. One Senior Seminar (p. 314) (ENGL 71 – ENGL 75, CRWT 60, 61, or 62 [formerly ENGL 86]). This course may also satisfy a Course Group requirement.
5. One course designated as a Culminating Experience. For students seeking a degree with Honors, this will be ENGL 98 or CRWT 98. All other students will count a Senior Seminar (ENGL 71–ENGL 75, CRWT 60, 61, or 62 [formerly ENGL 86]) in satisfaction of the Culminating Experience requirement.

Students electing the major in English should also note the following:

1. Transfer credits can be used in the major only with approval from the Department Vice Chair. Transfer credits normally do not satisfy any of the English major distributive requirements.
2. Two substitute courses (relevant courses from other Dartmouth departments) are permitted within the major, replacing two elective English classes. Substitute courses cannot satisfy English major distributive requirements. The Department Vice Chair, in consultation with the Committee on Departmental Curriculum (CDC), decides which courses are appropriate substitutes in the English major.
3. Students are encouraged to seek out a faculty advisor to consult about major planning prior to declaring the major. Any non-visiting English faculty member at the Assistant, Associate, or Professor level may serve as advisor. English majors should meet with a major advisor regularly, especially if they deviate from their original major plan.
4. Students formally elect the major in English by submitting a proposed plan of major courses through DartWorks (on DartHub), filling out a major planning worksheet (available in the English and Creative Writing Department offices as well as on the Department website), and meeting with a faculty advisor to get approval. Once approved by the advisor, the signed worksheet must be submitted in the Department offices.

Concentration in Creative Writing
The Creative Writing Program’s sequential course of study and small workshops allow students to pursue and develop their craft from the introductory level to the advanced. The creative writing experience at Dartmouth combines intensive writing workshops with the study of literature
from a writer’s perspective. The concentration in Creative Writing does not change graduating requirements for students majoring in English, but it is a prerequisite for honors with a focus in Creative Writing.

For students prior to and including the Class of 2022, the Concentration consists of four courses taken as part of an English major plan of study as follows:

1. Students must pass one prerequisite course, CRWT 10 (p. 321) (formerly ENGL 80), CRWT 11 (p. 321) (formerly ENGL 81), or CRWT 12 (p. 321) (formerly ENGL 82).

2. Students then enroll in one intermediate course, CRWT 20 (p. 321) (formerly ENGL 83), CRWT 21 (p. 322) (formerly ENGL 84), or CRWT 22 (p. 322) (formerly ENGL 85).

3. The third course can be chosen from any course with the CRWT course code (p. 321) (formerly ENGL 80 – 89); (substitute courses from other departments will be considered).

4. The fourth course can be in any genre of contemporary literature or another course with the CRWT code (formerly ENGL 80 – 89); (again, substitute courses from other departments will be considered).

For students in the Class of 2023 and beyond, the Concentration consists of four courses taken as part of an English major plan of study as follows:

1. One introductory course, CRWT 10 (p. 321), CRWT 11 (p. 321), or CRWT 12 (p. 321). (Only one introductory creative writing course may count toward the Concentration in Creative Writing.)

2. One intermediate course, CRWT 20 (p. 321), CRWT 21 (p. 322), or CRWT 22 (p. 322).

3. One course from the range of creative writing special topics seminars, CRWT 40 and CRWT 41. (Substitute courses with a focus on creative writing from other departments may be considered. Please consult with the Director of Creative Writing.)

4. One advanced workshop, CRWT 60 (p. 322), CRWT 61 (p. 322), or CRWT 62 (p. 322). (The advanced workshop is a requirement for the completion of the Concentration in Creative Writing.)

All intermediate and senior workshop courses (CRWT 20, 21, or 22 [formerly ENGL 83, 84, or 85] and CRWT 60, 61, or 62 [formerly ENGL 86]) require application and permission of the instructor.

Students who wish to elect the Creative Writing concentration should contact a Creative Writing faculty advisor and request a meeting to plan their course of study. Students are encouraged to select an advisor based on the area of creative interest.

Modified Majors

Students may propose a modified major in English by designing a program of study in consultation with an English and Creative Writing faculty advisor. One may modify the major with a selection of courses from other departments and programs, or one may modify a major in another department or program with a selection of English and Creative Writing courses. In both cases the modifying courses must qualify for major credit in their home department or program. The Culminating Experience requirement should be satisfied according to the primary department’s rules. Proposals for modifying the major in English should explain the rationale for modifying the standard major.

A formal proposal for a modified major must be submitted to the Vice Chair of the Department of English and Creative Writing. Proposals to modify another major with English and Creative Writing courses must be approved by the Vice Chair of English and Creative Writing before going to the primary department or program for final approval as a major program. Proposals to modify the major in English with other courses must be submitted, along with an authorizing signature from the secondary department or program, to the Vice Chair of English and Creative Writing and the CDC. The Vice Chair’s signature signifies final approval of a modified major in English.

Modified major in which English is the primary subject:

This major requires the successful completion of eleven major courses, including seven courses in the Department of English and Creative Writing. All of the distributive requirements governing the regular English major, as outlined above, apply to the modified major. Along with the English and Creative Writing courses taken in satisfaction of the major distributive requirements, a modified major includes four courses from the modifying department or program (or from multiple departments and programs), which substitute for four elective English and Creative Writing courses in the eleven-course major.

Major in another department or program modified with English:

To modify another major with English, a student must take four English and Creative Writing courses that count towards the major in English. These four substitute for four courses from the primary department or program, and cannot include transfer credits.

The Minor in English

The minor in English requires the successful completion of six courses in the Department of English and Creative Writing, selected from all English and Creative Writing
courses qualifying for major credit. No substitutions and no more than one transfer credit will be permitted.

The Major in English with Honors

English majors who have completed at least six major courses by the end of their junior year and have a grade point average (GPA) in the major of 3.5 or higher and an overall college GPA of 3.0 or higher may apply for the Honors program. Eligible students apply by submitting their college record to the English Honors Directors along with a formal proposal of an Honors thesis. The thesis is to be completed during two terms of ENGL 98 and ENGL 99 or CRWT 98 and CRWT 99. Either ENGL 98 or CRWT 98 counts as the Culminating Experience in the major and ENGL 99 or CRWT 99 constitutes a twelfth course in the major program, separate from all other requirements outlined above.

There are two prerequisites for the Honors Program: 1) Students must complete a Senior Seminar in English (ENGL 70 – ENGL 75, CRWT 60, CRWT 61, or CRWT 62 [formerly ENGL 86]) prior to enrolling in ENGL 98 or CRWT 98; and 2) the Course Group IV requirement should be satisfied before the term in which the candidate completes the Honors thesis and submits it for evaluation. In addition, participation in a bi-weekly Honors seminar, which usually meets at the 3A hour, is required. Students who do not meet these requirements will not be allowed to advance to ENGL 99 or CRWT 99.

For complete information about the Honors Program, including further regulations, deadlines, and advice, please consult the Directors of Honors.

English Study Abroad

The Department of English and Creative Writing offers one Foreign Study Program (FSP), offered annually at Queen Mary University of London. The English and Creative Writing FSP takes place during the fall academic term. Participation in the FSP is open to all sophomores, juniors, and seniors. To participate in the program, students must have completed all first-year requirements and one English course (other than ENGL 7) with a grade of B or better. Students wanting to study creative writing in London must also complete an introductory creative writing course in the relevant genre (CRWT 10, CRWT 11, or CRWT 12) with a grade of B or better. In rare circumstances, the director of the FSP can authorize exceptions to these prerequisites.

Students enrolled in the English and Creative Writing FSP register for ENGL 90, ENGL 91, and ENGL 92, and those three courses will appear on the student’s transcript when the FSP is completed successfully. ENGL 90 and ENGL 91 carry major and minor credit and may be used to satisfy Course Group requirements in the major; ENGL 92 carries one non-major college credit. A student may petition the Vice Chair to receive three major or minor credits in English for work completed during an English and Creative Writing FSP. The Course Group requirements satisfied by ENGL 90 and ENGL 91 depend on the particular courses taken at the FSP host institution and should be determined in consultation with the Department Vice Chair. For specific information on FSPs and major requirements please consult the FSP directors and the English and Creative Writing Department’s website at https://english.dartmouth.edu.

The Department of English and Creative Writing website and the Registrar’s Timetable of Class Meetings also have up-to-date information on course offerings.

COURSE GROUPS

Course Groups

I. Literature before the mid-seventeenth century (2 courses required for the major):

ENGL 1, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 51, 61, 71.

II. Literature from the mid-seventeenth century to the end of the nineteenth century (2 courses required for the major):

ENGL 2, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 52, 62, 72.

III. Literature from the start of the twentieth century to the present (1 course required for the major):

ENGL 3, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 53, 63, 73, CRWT 40, 41 (formerly ENGL 87).

IV. Criticism and Theory (1 course required for the major):

ENGL 44, 45, 46, 47, 48, 54, 64, 74, COLT 72.

Courses with a variable Course Group:

ENGL 90, 91.

Courses with no Course Group Assignment:

ENGL 5, 6, 7, 55, 65, 75, 96, 98, 99, CRWT 10, 11, 12, 20, 21, 22, 60, 61, 62, 89, 98, 99 (formerly ENGL 80, 81, 82, 83, 84, 85, 86, 89, 98).

Courses that do not count for major credit:

Writing 2, 3, 5, English 6, 7, 99, Creative Writing 99.

Courses that count for major credit if approved by the Vice-Chair

English 96
ENGL and CRWT - English and Creative Writing Courses

To view English and Creative Writing requirements, click here (p. 280).

Section I - Non-Major Courses

ENGL 6 - Narrative Journalism: Literature and Practice
Instructor: Jetter
This course will explore the role of print journalism in shaping the modern American literary, cultural and political landscape—from Nellie Bly’s late 19th century undercover exposure to Seymour Hersh's coverage of the Iraq War. Students will also participate in an intensive weekly workshop on reporting and writing, with a short unit on radio commentary.
Distributive: Dist:LIT; WCult:W

ENGL 7 - First-Year Seminars in English
Instructor: Various
Consult special listings

Section II - Major Courses

ENGL 1 - Literary History I: Literature up to the mid-Seventeenth Century
Instructor: Beckman
This course will provide an overview of English literature from the Anglo-Saxon period through the Middle Ages and into the seventeenth century.
Distributive: Dist:LIT; WCult:W

ENGL 2 - Literary History II: Literature from the mid-Seventeenth Century through the Nineteenth Century
Instructor: Dever
This course will provide an overview of British and American Literature during the seventeenth, eighteenth and nineteenth centuries.
Distributive: Dist:LIT; WCult:W

ENGL 3 - Literary History III: Literature in the Twentieth and Twenty-First Centuries
Instructor: Zeiger
This course will provide an overview of literature in the Anglophone world from the beginning of the twentieth century to the present.
Distributive: Dist:LIT; WCult:W

ENGL 5 - Reading with Attitude
This course introduces students to methods for reading literature and culture critically, including close reading, literary theory, and creative writing. Students will study traditional literary works, such as poetry and fiction, but they will also examine video games, graphic novels/comics, and genre fiction. Assignments will include traditional essays and creative projects. The course brings together considerations of art, philosophy, society, and politics in order to consider issues that range from identity in a globalized world to the pains and pleasures of romantic love.
Distributive: Dist:LIT; WCult:W

ENGL 10 - Old English and Scandinavian Epic and Saga
Instructor: Otter
An introduction both to Old English literature and to Old Norse sagas, setting “Beowulf” and poems like “The Wanderer” and “The Wife’s Lament” in their North Sea/North Atlantic context. We will learn just enough Old English to enable us to read, translate, and savor some of the original poetry and to become savvy readers of the modern translations. Sagas will include “Völsunga,” “The Saga of the People of Laxardal,” and “Hrolf Kraki” (in translation).
Distributive: Dist:LIT; WCult:W

ENGL 11 - Chaucer: "The Canterbury Tales"
Instructor: Otter
An introduction to Chaucer, concentrating on ten of the Canterbury Tales, and studying him as a social critic and literary artist. Special attention will be paid to Chaucer's language, the sounds of Middle English, and the implications of verse written for the ear.
Distributive: Dist:LIT; WCult:W

ENGL 12 - Chaucer's "Troilus and Criseyde" and Other Poems
A study of Chaucer’s major works other than the Canterbury Tales, focusing on some of the early dream visions (Book of the Duchess, House of Fame) and Troilus and Criseyde, which many consider to be the greatest love epic in the English language. Some attention will be given to the French and Italian context of these works (in translation). No familiarity with Middle English is required.
Distributive: Dist:LIT; WCult:W

ENGL 13 - Medieval English Literature
An introduction to the literature of the "Middle English" period (ca. 1100 - ca. 1500), concentrating on the emergence of English as a literary language in the twelfth
and early thirteenth centuries and on some of the great masterworks of the late fourteenth century. Readings will include early texts on King Arthur, the *Lais of Marie de France*, the satirical poem *The Owl and the Nightingale*, the romance *Sir Orfeo*, *Pearl*, and *Sir Gawain and the Green Knight*, the *Book of Margery Kempe*, and the *York Cycle*. Most readings in modern English translation, with some explorations into the original language.

Distributive: Dist:LIT; WCult:W

**ENGL 15 - Shakespeare**

Instructor: Ritter

A study of about ten plays spanning Shakespeare's career, including comedies, histories, tragedies, and romances. Attention will be paid to Shakespeare's language; to his dramatic practices and theatrical milieu; and to the social, political, and philosophical issues raised by the action of the plays. Videotapes will supplement the reading. Exercises in close reading and interpretative papers.

Distributive: Dist:LIT; WCult:W

**ENGL 16 - Renaissance Drama**

A study of commercial theater in London from about 1570 until the closing of the theaters in 1642. Anonymous and collaborative plays will be read as well as those by such playwrights as Kyd, Marlowe, Dekker, Jonson, Webster, and Ford. The course will focus on the economic, social, political, intellectual, and theatrical conditions in which the plays were originally produced, on their continuing performance, and on their status as literary texts. Research into the performance history of a play or participation in a scene production is required.

Distributive: LIT

**ENGL 17 - Milton**

Instructor: Luxon

A study of most of Milton's poetry and of important selections from his prose against the background of political and religious crises in seventeenth-century England.

Distributive: Dist:LIT; WCult:W

**ENGL 18 - Poetry, Prose, and Drama of the English Restoration, 1660-1689**

Together, we shall study poetry, prose and drama written and performed during the reign of the last two Stuart kings, Charles II and James II. No period of English literature is so deeply and even obsessively concerned with both politics and religion. This makes the verse, drama and prose of John Dryden, Andrew Marvell, John Milton and John Bunyan particularly interesting. We will also take time for some comedies typical of the period by William Wycherly and William Congreve, and study Aphra Behn’s masterpiece, *Oroonoko*. There will be two areas of special attention: the theater and the literary responses to public events, such as the Great Plague and Fire of 1666, the Popish Plot, and the Exclusion Crisis.

Distributive: Dist:LIT; WCult:W

**ENGL 19 - Writing, Resistance, and (digital) Revolution**

This course explores a multicultural history of the technologies of "writing" in North America from 1500-1800. We study three strands of that history (the pre-Columbian world; conquest and religion; European settler colonialism and the Atlantic slave trade) by focusing on four figures: Benjamin Franklin, Thomas Jefferson, Samson Occom, and Phillis Wheatley. All used writing in different ways to make "revolutions." Finally, we consider and contribute to the recent turn to digital archives of Early America.

Distributive: Dist:LIT; WCult:W

**ENGL 21 - Reason and Revolution**

Was there a British Enlightenment? In the age of the American and French Revolutions Britain seemed to hold steady. But in the literature of the period there are many social and literary struggles which took their tolls in the madness and suicide of writers such as Smart and Chatterton, the difficulties of attaining creative freedom, and the emergence of new literary forms such as the Gothic. This course will trace the fortunes of writers such as Samuel Johnson, James Boswell, Oliver Goldsmith, and Edmund Burke as they grapple with the anxieties of their time. We will also consider how women thinkers and novelists such as Charlotte Lennox and Mary Wollstonecraft forged new roles for themselves, and we may include studies of the novel of political paranoia such as *Caleb Williams*, written by Wollstonecraft's husband, William Godwin.

Distributive: Dist:LIT; WCult:W

**ENGL 22 - The Rise of the Novel**

Instructor: Garrison

A study of the eighteenth- and early nineteenth-century English novel, from Daniel Defoe to Jane Austen. The course will look at the major sub-genres of the period, including criminal biography, scandalous memoirs, epistolary fiction and the Gothic novel. It will also explore the relationships between narrative fiction and the changing cultural landscape of a period defined by commercial uncertainty, imperial expansion, and the threat of revolution. Finally, and most importantly, the course will ask why the novel became so central to modern conceptions of subjectivity, sexuality, social cohesion and transgression. Readings may include work by Daniel Defoe, John Cleland, Jonathan Swift, Henry Fielding, Samuel Richardson, Laurence Sterne, Fanny Burney, Ann
ENGL 23 - Romantic Literature: Aesthetics and Ideology from the French Revolution to Frankenstein

Instructor: Garrison

The modern conception of the imagination as a force for radical social change emerged, in large part, thanks to the aesthetic innovations of Romantic writers working in the wake of the French Revolution. At the same time, however, the prospect of revolutionary violence made the imagination a dangerous, and intensely debated faculty, as promising as it was potentially pathological, and as likely to produce a Gothic nightmare as a pastoral utopia. This course will examine the richly varied forms of literary and political experience that emerge out of this moment, and that continue to shape modern conceptions of creativity, sexuality, ecology and social transformation. Readings include works by William Blake, William Wordsworth, Percy and Mary Shelley, John Keats, and Thomas de Quincey.

Distributive: Dist:LIT; WCult:W

ENGL 24 - Victorian Literature and Culture, 1837-1859

Instructor: Dever

This course examines early Victorian poetry, prose and fiction in the context of cultural practices and social institutions of the time. We will locate cultural concerns among, for example, those of capitalism, political reform, scientific knowledge, nation and empire. And we will consider revisions of space, time, gender, sexuality, class, and public and private life that characterized formations of British identity during this period. Texts may include work by Charles Dickens, Thomas Carlyle, Elizabeth Barrett Browning, Charlotte Bronte, John Ruskin, and Charles Darwin. We will also read selections from recent criticism of Victorian culture.

Distributive: Dist:LIT; WCult:W

ENGL 26 - Masterpieces of Nineteenth Century British Fiction

The British novel achieved great popularity during the nineteenth century as it became a realist form with increasing complexities of plot and character. During a period of imperial and economic expansion, too, great works of fiction participated in widespread debates about progress, empire, Englishness, and evolutionary thought. We will look at fiction's contributions to such cultural debates, considering the novel's powerful critique of empire and dreams of progress; the importance of formations of English identity to plot and character; reactions in fiction to evolutionary revisions of history; and how Victorian fiction signals the importance of class, gender, and race to character development. Readings may include Charlotte Brontë's Jane Eyre, Charles Dickens's Great Expectations, Wilkie Collins's The Moonstone, George Eliot's Middlemarch, Thomas Hardy's Tess of the d'Urbervilles, and Oscar Wilde's The Picture of Dorian Gray.

Distributive: Dist:LIT; WCult:W

ENGL 27 - Tell It Slant: Female, Black, Queer Readings of Early American Poetry

This course is an introduction to reading poetry and also a survey of the early period of American poetry from 1650-1900. Although often seen as a tradition dominated by white men, this course emphasizes aspects of American poetry rooted in the “queer” sensibility of Puritan Edward Taylor, the female consciousness of Anne Bradstreet, the Black and female consciousness of Lucy Terry and Phillis Wheatley, the Puritan/queer inheritors Walt Whitman and Emily Dickinson, and the early modernism of Stephen Crane. Emphasizing close readings as well as historical and cultural contexts, this course examines the often obscured aspects of the American poetic tradition.

Distributive: Dist:LIT; WCult:W

ENGL 28 - Making Americans: Hipsters, Tricksters and Geniuses

Instructor: Boggs

A survey of American non-fiction narrative and other prose from the early republic to the rise of modernism. The course examines how autobiographies (Franklin, Douglass, Larcom, Thoreau, Stein) and other prose genres construct individual selves and national belonging while negotiating the pressures of transcendentalism, abolitionism, feminism, and class consciousness by means of aesthetic experimentation. Additional authors vary but often include Jefferson, Apess, Fuller, Hemingway, Adams, Hurston, Kerouac, and Agee.

Distributive: Dist:LIT; WCult:W

ENGL 29 - American Fiction to 1900

Instructor: Boggs

A survey of the first century of U.S. fiction, this course focuses on historical contexts as well as social and material conditions of the production of narrative as cultural myth. The course is designed to provide an overview of the literary history of the United States novel from the National Period to the threshold of the Modern (1845-1900). To do justice to the range of works under discussion, the lectures will call attention to the heterogeneous cultural contexts out of which these works have emerged as well as the formal and structural components of the different works under discussion. In keeping with this intention, the lectures include the so-
called classic texts in American literature, *The Last of the Mohicans*, *Moby Dick*, *The Scarlet Letter*, and *The Narrative of the Life of Frederick Douglass*, but also the newly canonized *Uncle Tom's Cabin*, *Incidents in the Life of a Slave Girl*, *Life in the Iron Mills*, and *Hope Leslie*. The configuration of these works will result in an understanding of the remarkable complexity of United States literary culture.

Distributive: Dist:LIT; WCult:W

**ENGL 30 - Early Black American Literature**


Cross-Listed as: AAAS 34

Distributive: Dist:LIT; WCult:W

**ENGL 31 - Asian American Literature and Culture**

Instructor: Sawada

This course examines narratives of migration to, from, and between the Americas by groups from East, South, and Southeast Asia. We will analyze novels, short fiction, poetry, and films by twentieth-century artists (Joy Kogawa, Theresa Cha, Shani Mootoo, Jhumpa Lahiri, Bienvenido Santos, Wayne Wang) against the historical backdrop of imperialism in Asia and the Americas; periods of exclusion and internment; and social movements that coalesce around intersections of race, class, gender, sexuality, and citizenship.

Distributive: Dist:LIT; WCult:CI

**ENGL 32 - Native American Literature**

Instructor: Benson Taylor

Published Native American writing has always incorporated a cross-cultural perspective that mediates among traditions. The novels, short stories, and essays that constitute the Native American contribution to the American literary tradition reveal the literary potential of diverse aesthetic traditions. This course will study representative authors with particular emphasis on contemporary writers.

Cross-Listed as: NAS 35

Distributive: Dist:LIT; WCult:NW

**ENGL 33 - Modern Black American Literature**

Instructor: Bennett

A study of African American literature from the Harlem Renaissance to the present, this course will focus on emerging and diverging traditions of writing by African Americans. We shall also investigate the changing forms and contexts of 'racial representation' in the United States. Works may include those by Hurston, Hughes, Wright, Ellison, Morrison, Schuyler, West, Murray, Gates, Parks.

Cross-Listed as: AAAS 35

Distributive: Dist:LIT; WCult:W

**ENGL 34 - From Anna Christie to Hamilton (and Donald Trump): Modern American Drama**

Instructor: Pease

In this course we’ll take up iconic plays in modern and contemporary American Drama -- Eugene O’Neill’s *Anna Christie* and *Long Day’s Journey into Night*, Arthur Miller’s *All My Sons* and *Death of A Salesman*, Lorraine Hansberry’s *A Raisin in the Sun*, Tennessee Williams’ *A Streetcar Named Desire* and *Cat on a Hot Tin Roof*, August Wilson’s *Fences*, Tony Kushner’s *Angels in America*, Suzan Lori-Parks’ *Topdog/Underdog*, Lin-Manuel Miranda’s *Hamilton* -- and consider the ways in which they were shaped by historical events even as as they helped to shape (and in some cases reform ) U.S. culture and politics. In the final week, the class will analyze the theatrical design, dramatic structure, and cultural efficacy of a Donald Trump rally.

Distributive: Dist:LIT; WCult:W

**ENGL 35 - American Fiction: 1900 to World War II**

A study of major American fiction in the first half of the twentieth century. Works by Dreiser, Stein, Fitzgerald, Cather, Larsen and Faulkner, and a changing list of others.

Distributive: Dist:LIT; WCult:W

**ENGL 36 - Contemporary American Fiction**

Instructor: Stuelke

Contemporary American fiction introduces the reader to the unexpected. Instead of conventionally structured stories, stereotypical heroes, traditional value systems, and familiar uses of language, the reader finds new and diverse narrative forms. Such writers as Toni Morrison, Thomas Pynchon, Maxine Hong Kingston, Leslie Silko, Norman Mailer, Don DeLillo, and Ralph Ellison, among others, have produced a body of important, innovative fiction expressive of a modern American literary sensibility. The course requires intensive class reading of this fiction and varied critical writing on postmodernism.

Distributive: Dist:LIT; WCult:W
ENGL 37 - Contemporary American Poetry
Instructor: Moodie
This course explores the most exciting developments in American poetry from 1960 until the present. We will consider a wide array of poetic movements—the Beats, the New York School, the Confessionalists, the Black Mountain group, the Black Arts Movement, Language poets, performance and conceptual poetry, rap and spoken word—in order to understand the aesthetic tendencies that inform American poetics being written today. In particular, we will examine key individual poets through close readings of their most exemplary work.
Distributive: Dist:LIT; WCult:W

ENGL 38 - American and British Poetry: 1900-1960
Instructor: Zeiger
A survey of modern American and British poetry since the First World War, with particular emphasis on the aesthetics, philosophy and politics of modernism. The course covers such canonical and non-canonical poets as Yeats, Pound, HD, Lawrence, Eliot, Stevens, Frost, Williams, Crane, Moore, Millay, Auden, and the Harlem Renaissance.
Distributive: Dist:LIT; WCult:W

ENGL 39 - Modern British Drama
Major British plays since the 1890s. The course begins with the comedy of manners as represented by Oscar Wilde and Noel Coward. It then considers innovations in and rebellions against standard theatrical fare: the socialist crusading of Bernard Shaw; the angry young men (John Osborne) and workingclass women (Shelagh Delaney) of the 1950s; the minimalists (Samuel Beckett, Harold Pinter) and the university wits (Tom Stoppard); the dark comedians of the modern family (Alan Ayckbourn) and the politically inflected playwrights of the age of Prime Minister Thatcher (Caryl Churchill, Timberlake Wertenbaker, David Hare). The course deals both with the evolution of dramatic forms and the unusually close way in which modern British theatre has served as a mirror for British life from the heyday of the Empire to the present.
Distributive: Dist:LIT; WCult:W

ENGL 41 - British Fiction: World War II to the Present
A study of the multiple currents within British fiction in a period characterized by major literary, cultural, and social transitions in Britain, including the emergence of a “post” (-war, -empire, -modern) sensibility. Writers may include Amis, Sillitoe, Greene, Golding, Burgess, Lessing, Wilson, Carter, Swift, Atkinson, MacLaverty, Ishiguro, Barker, Barnes, McKewan, Smith.
Distributive: Dist:LIT; WCult:W

ENGL 42 - Introduction to Postcolonial Literature
Instructor: Khan
An introduction to the themes and foundational texts of postcolonial literature in English. We will read and discuss novels by writers from former British colonies in Africa, South Asia, the Caribbean, and the postcolonial diaspora, with attention to the particularities of their diverse cultures and colonial histories. Our study of the literary texts will incorporate critical and theoretical essays, oral presentations, and brief background lectures. Authors may include Chinua Achebe, Ngugi wa Thiong'o, V.S. Naipaul, Merle Hodge, Anita Desai, Bessie Head, Nadine Gordimer, Paule Marshall, Tsitsi Dangarembga, Salman Rushdie, Earl Lovelace, Arundhati Roy.
Cross-Listed as: AAAS 65
Distributive: Dist:INT or LIT; WCult:NW

ENGL 44 - Introduction to Digital Studies
Instructor: Evens
This course introduces digital studies, the scholarly engagement with digital technologies and the cultures that have risen alongside them. It is a commonplace to note that the digital is pervasive in our lives, and it therefore plays at least some role in almost every human activity, from the mundane to the exotic. This course will chart the development of the digital from its growth in the twentieth century to its current hegemony, and will consider its relationship to communication, sociality, identity, media, arts, recreation, politics, the future, and more. Class meetings will focus on scholarly articles and book chapters, supplemented by some film, and by artifacts of digital technology and culture. Students will collectively shape the syllabus, aligning our readings with the interests of the class.
Distributive: Dist:ART

ENGL 45 - Introduction to Literary Theory
Instructor: 22W: Edmondson; 22S: Tanoukhi
The course will introduce students to some of the leading texts, concepts, and practices of what has come to be known as theoretical criticism. Topics to be considered may include some of the following: structuralism, deconstruction, psychoanalysis, feminism, new historicism, post-colonialism, post-modernism, queer theory, and cultural studies. Attention will also be given to historical and institutional contexts of this criticism. Intended to provide a basic, historically informed, knowledge of theoretical terms and practices, this course should enable students to read contemporary criticism with understanding and attempt theoretically informed criticism themselves.
Distributive: LIT
ENGL 46 - Old and New Media

A survey of the historical, formal, and theoretical issues that arise from the materiality and technology of communication, representation, and textuality. The course will address topics in and between different media, which may include oral, scribal, print, and digital media. Readings and materials will be drawn from appropriate theorists, historians, and practitioners, and students may be asked not only to analyze old and new media, but also create with them.

Distributive: Dist:LIT; WCult:W

ENGL 47 - A History of the English Language

This course traces the development of English as a spoken and written language belonging to the Indo-European language family. We will work forward from Proto-Indo-European through Old English (Beowulf), Middle English (Chaucer), and Early Modern English (Shakespeare), up to contemporary American English. Our focus will be on the structural history of the language, especially changes in pronunciation and grammar, and the implications of those changes for English as spoken and written today. Open to all classes.

Cross-Listed as: LING 018

Distributive: Dist:QDS; WCult:W

ENGL 48 - Critical Issues in Postcolonial Studies

Instructor: Khan

This course charts one genealogy of postcolonial theory as it developed in the Anglo-American academy in the 1980s. Drawing on the two internationalist traditions of the late nineteenth and twentieth century, Marxism and Psychoanalysis, this course examines the ways in which these two theoretical frameworks helped construct postcolonial thinking while at the same time becoming the sites of its most rigorous critique. The course will begin with an introduction to some of the key concepts in Marxist and psychoanalytic thought, specifically as these two traditions understand colonialism. Then, we will read the work of postcolonial thinkers, such as Frantz Fanon, Edward Said, Gayatri Spivak, and Homi Bhabha, to consider their critiques of colonial thought and practices. Throughout the course, we will attend to the way in which racial and sexual difference is considered in the readings. The theoretical material for the course will be supplemented with our engagement with four films: Xala (Dir. Ousmane Sembène, 1975); The Battle of Algiers (Dir. Gillo Pontecorvo, 1966); Fire (Dir. Deepa Mehta, 1996); Frantz Fanon: Black Skin, White Mask (Dir. Isaac Julien, 1996).

Distributive: Dist:INT or LIT; WCult:NW

Section III - Special Topics Courses

Special topics courses in Creative Writing (CRWT) are offered periodically, concentrating on particular issues in one or more fields of poetry, fiction, and creative nonfiction. Courses may require creative and critical papers and include workshops. Enrollment is limited to 18.

Special topics courses in English (ENGL) are offered periodically with varying content; one or more individual writers, a genre, or an approach to the literature of this historical period not otherwise provided in the English curriculum. Requirements will include papers and, at the discretion of the instructor, examinations. Enrollment is generally limited to 30.

CRWT 040 - Special Topics in Creative Writing

These courses are offered periodically, concentrating on particular issues in one or more of the fields of poetry, fiction, and creative nonfiction. Courses may require creative and critical papers and include workshops.

CRWT 40.01 - Imaginary Countries

Instructor: Chee

This course introduces the techniques used in speculative fiction—literary novels and stories using either science fiction, magical realism, or myth, or a mix of these, so the author can reinvent a country’s history, the country itself—even the world. We will read for technique, and discuss the effects these fictions achieve with their structures and the narrative and aesthetic strategies deployed. Students will write and workshop two stories. Readings may include: Virginia Woolf's Orlando, Andrew Sean Greer’s “Darkness”, Kazuo Ishiguro’s Never Let Me Go, Chris Adrian’s “Every Night For A Thousand Years”, Anne Carson’s Autobiography of Red, Yiyun Li’s “Immortality”, Jan Morris’ Hav, Toni Morrison’s Sula, and Carmen Machado’s “The Husband Stitch.”

Distributive: Dist:ART

CRWT 40.02 - Literary Geniuses: The Short Fiction of 21st Century MacArthur Foundation Fellows

Tbd

Distributive: Dist:ART

CRWT 40.03 - Raising the Dead

How can we practice "immersion journalism," as creative nonfiction is sometimes described, when writing about people and events of the past? In this creative nonfiction writing course, we'll immerse ourselves in the kind of research that will allow us to recreate moments and moods for which we couldn't be present. We'll become witnesses.
at a remove; and, through careful attention to our own roles in the construction of our stories, participant-observers, as well. We’ll learn how to use archives; make creative use of documents and artifacts; engage with scholarly historical writing as a source for creative writing; and interrogate our assumptions about research and representation, all in the service of character-driven narratives as vivid, nuanced, and dramatic as writing based on contemporary fieldwork. This course is an attempt to raise the dead, to resurrect truths from dormant facts, to find stories of the present within the past. You'll write two short nonfiction stories, of a person and a place, based on secondary sources, and one long narrative based on original research. The texts we'll be reading, by Lauren Redniss, John D'Agata, Svetlana Alexievitch, Joe Sacco, Maggie Nelson, and Michael Lesy, among others, vary radically in form and medium, as may your own experimental nonfictions

Distributive: Dist:ART

CRWT 40.04 - Remains, Ruin, Repair, and Rapture
Instructor: Francis

Remains, Ruin, Repair and Rapture: Trends in Urban Contempory Poetry from Detroit to Krakow

In the center of Detroit, Michigan sits the completely enclosed, far smaller city of Hamtramck, with its own mayor, police department, fire department and history of generations of Polish immigrants. Two urban centers connected by borders and across borders by rich poetries that place pressure upon stereotypes of the "urban."

In this course, we will consider essays, poetry and interviews that dare interrogate and upturn common assumptions around the demographics and expectations of urban centers and the arts and letters that rise from them. We will write critical as well as creative responses to the readings. We will resist "outside" definitions and privilege the self-defining texts of the authors we study who are writing from their experiences within these sites of growth and failings, allegiances and loss, flight and fury. Readings will include work by: Jacek Dehnel, Francine Harris, Jamaal May, Matthew Olzmann, and Adam Zagajewski among others

Distributive: Dist:ART; WCult:W

CRWT 40.05 - Engaging Hybridity: Race, Gender, Genre

This course explores hybrid genres such as the prose poem, the lyric essay, and the graphic memoir, as well as other sites of artistic production that involve intersection, exchange, conflict, inhabitance, resistance, and cultural address. Students will consider the diverse and provocative creative work of Mat Johnson (Incognegro), Maggie Nelson (Bluets), Sebastian Matthews (Beginner's Guide to A Head On Collision), Claudia Rankine (Citizen), Tyehimba Jess (Olio), Kwame Dawes (Duppy Conqueror), A. Van Jordan (The Cineaste) and Dee Matthews (Simulacra), and based on these readings they will develop their own creative work in hybrid genres. The class will utilize both seminar and workshop formats, but the emphasis will be the practice of writing as a way of thinking through forms of social, political and cultural engagement with this anxious moment in history, and of asking what kind of parameters, if any, art, particularly literature, truly requires? Are they porous enough? And what role does identity play in the choice to cross such borders?

Distributive: Dist:ART

CRWT 40.06 - Uses of Fact: True Source Material in Prose, Poetry, & Film

This class will examine how a diverse group of artists work with factual material. One sometimes hears this sensible phrase: "You aren't entitled to your own facts." But the truth is artists do frequently work with what one might call their own facts. We’ll look at what certain writers (Anna Deavere Smith, Eudora Welty, Joseph Brodsky), poets (Pedro Pietri, Elizabeth Robinson, Van Jordan) and filmmakers (Sarah Polley, Charles Burnett, and Earl Morris) do with true source material that interests, compels, perhaps repulses, above all, inspires them. Weekly writing exercises and workshops will help you develop our own ideas inspired by the works under discussion. The course will culminate in a final project where students will share own new work in prose, fiction or non-fiction.

Distributive: Dist:ART

CRWT 40.08 - Dystopian Visions: Exploring the Fiction of Catastrophe and Apocalypse

What do dystopian fictions say about our world, our place in it, and the future before us? Are they merely reactions to damaging contemporary trends or richly imaginative, fully realized conceptions of what is to come? Via intensive reading, discussion of work in the genre in combination with contemporary essays, newspaper accounts, film and documentary, we will consider the power of fiction to shape and draw attention to the dilemmas that face humankind in the 21st century and beyond. We will touch upon and reference those earlier works that have shaped the genre, such as We by Yevgeny Zamyatin, Aldous Huxley’s Brave New World and 1984 by George Orwell, but our primary focus will be on those fictions of the last forty years that ring prophetically and frighteningly true vis-à-vis events in our current world. We’ll be reading a wide variety of authors, which may include, Harlan Ellison, Philip K. Dick, Cormac McCarthy, J.G. Ballard, John Wyndham, Richard Matheson, and Anthony Burgess. Students will write two short stories that extend a particular author’s dystopian vision, and a longer fiction originating from their own imaginings.

Distributive: Dist:ART; WCult:W
CRWT 40.09 - Obsessive Affinities Contemporary French & American poetry

Instructor: Elhariry

This deeply experiential course examines the rich history of transatlantic desire, negotiated over the love of poetry. The United States has always figured heavily in the collective French imaginary ever since the American Revolution, for instance in the works of Tocqueville and Chateaubriand. American literature, however, gains particular prominence toward the mid-twentieth century with the transatlantic travels of Simone de Beauvoir, André Breton, Jean-Paul Sartre, and Philippe Sollers among authors, to the point that French writers began wondering how one can even be French in the first place. The course explores this crisis in national identity through a series of important poetic Franco-American friendships and collaborations: Edmond Jabès and Rosmarie Waldrop; Emmanuel Hocquard and Michael Palmer; Serge Pey and Allen Ginsberg; the Fondation Royaumont; the poetry collective double change; among others.

Cross-Listed as: COLT 31.02 FRIT 37.08
Distributive: Dist:LIT; WCult:W

CRWT 40.10 - James Joyce’s Ulysses

This is a class for creative writers and creative readers interested in studying, and more importantly enjoying, James Joyce, the storyteller. No previous experience with Joyce is required. Though the class will begin with an intensive examination of Joyce’s seminal long story, “The Dead,” our focus during the term will be an intensive, close reading of his second novel, Ulysses, a book that, generally speaking, is more famous than actually read. A colossal influence on generations of writers, and readers, including T.S. Eliot, Derek Wolcott, Edna O’Brien and countless others, Ulysses is, among many other things, challenging, irreverent, thought-provoking, political, technically virtuosic, and above all wildly entertaining. Students will read some outside sources on Joyce but for the most part our primary text will be Joyce’s own words – wherever they lead us. Prepare to meet a fascinating and chaotic cast of characters featuring – Lilly, Kate and Julia Morkan, Gabriel Conroy, Stephan Dedalus, Leopold and Molly Bloom, and many others. Assignments will include critical and creative responses to both “The Dead” and Ulysses, as well as a final essay.

Distributive: Dist:LIT; WCult:W

CRWT 40.11 - Nature Writing

Instructor: Bennett

This writing workshop provides an interdisciplinary exploration of literary works operating within the realm of Black environmental thought. Following Ed Roberson’s claim that “the world does not run the earth, but the earth does run the world” we will linger with the writings of those who have been forced to theorize from the underside of modernity, those who view black literary studies not only as an institutional enterprise, but as planetary thinking, as a commitment to care for the earth. Together, we will think critically about what it means to write at the intersection of race and environment in a social and political moment marked by climate catastrophe, and what’s more, put that thinking into practice within the workshop space by creating works of poetry and criticism in ensemble. All toward the aim of collaboratively engaging in what we might call—in keeping with the Combahee River Collective, Sylvia Wynter, Fred Moten and others—theory in black, black thought, black study.

Distributive: Dist:LIT; WCult:W

CRWT 40.12 - The Novels of Virginia Woolf: Radical Innovator

Instructor: Orner

This is a class for creative writers and creative readers interested in reading and above all, enjoying, the strange, beautiful novels of Virginia Woolf, a radical innovator of English prose whose work, since the moment it first appeared — through to today — has opened up new, and fascinating storytelling possibilities for writers (and readers) ever since. Woolf’s singular work has inspired countless writers, including Eudora Welty, W.H. Auden, Toni Morrison (who wrote her master’s thesis on Woolf), Edna O’Brien, Michael Cunningham, Jhumpa Lahiri, and Zadie Smith, among many, many others. Woolf’s great subjects were memory and time and we’ll be examining, through close reading, the many technical innovations Woolf developed, as well as the emotional risks she took, in order to capture memory and time on the page, such as her use of a unique combination of interiority and lyrical intensity. The class will begin with a look at Woolf’s landmark, book-length essay on the women’s struggle for independence and creative opportunity, A Room of One’s Own. We’ll be also be reading excerpts from a creative biography of Woolf and various essays by and about Woolf that concern, directly, her development as a writer who challenged much of what had come before. In order to trace, through three pivotal novels, Woolf’s creative development, our primary texts will be: Mrs. Dalloway, where Woolf breaks away from the constraints of traditional narrative, To The Lighthouse, perhaps her most beloved and most autobiographical book, and The Waves, arguably the most poetic, resonant, and challenging of her later works. Written work will be a combination of critical and creative responses to Woolf’s fiction.

Distributive: Dist:LIT; WCult:W

CRWT 40.13 - Contemporary Queer and Trans Asian American Poetry

Amidst grief and inheritance, migration and abandonment, is a name one gives oneself. In this poetry workshop, we will examine poetry collections by queer and trans Asian
Americans from the late twentieth century to the present, discussing questions of translation, borders, crossings, and reconstructions of the self through second languages and first histories. What are the silences of queer futures? What does it mean to write from or of an identity? How does one write while disowned from one or more identities? Participants will be asked to contemplate these questions in a creative and analytical writing practice culminating in critique workshops and a final poetry portfolio. (Non-exhaustive) readings may include works by Ching-In Chen, Leah Lakshmi Piepzna-Samarasinha, Pamela Lu, Kazim Ali, and Nhu Xuan Nguyen, among others.

Distributive: Dist:ART; WCult:CI

CRWT 41.01 - Writing for Television

Instructor: Carabatsos

This workshop course introduces students to the art and craft of writing for television. We're living in the midst of the (second) Golden Age of Television. More and more Americans are turning away from the traditional movie theater experience and embracing long form, character driven, small screen stories. In the film world, directors are king, but in television, the writers reign. It is their vision that gets put on the screen. Throughout the course, each student will workshop and develop a thirty minute pilot script and Show Bible, as well as read and analyze contemporary pilot scripts to see what exactly makes a pilot

Cross-Listed as: FILM 44.10

Distributive: Dist:ART

ENGL 51.01 - Plays, Playing, and Publicity

We will read plays by Shakespeare and his contemporaries including Marlowe, Dekker, Heywood, Jonson and others. Rather than considering them primarily as authored, literary texts, however, we will investigate them as products of a professional and commercial system—not unlike Hollywood—and as popular media in an age without journalism. Plays will be grouped in clusters that foreground roughly contemporary texts and/or performances in dialogue and competition with each other. Readings will also address the physical and social spaces of performance and the controversies about theater.

Students interested in twentieth century productions of early modern plays or more general twentieth century issues of media and performance are welcome.

Distributive: Dist:LIT; WCult:W

ENGL 51.02 - Shakespeare's King Lear and Macbeth: Text and Film

This course offers students the luxury of focusing exclusively on just two of Shakespeare’s tragedies—King Lear and Macbeth—which constitute the final two of Shakespeare’s most famous four tragedies. Over the past 10 years, there have been no fewer than three major films made of each play, the latest being the brand new Macbeth, starring Michael Fassbinder. That each play still invites yet another way of imagining the play suggests both the suspicion that maybe the play hasn’t yet been done right, and simultaneously the sense that these two plays offer some kind of especially important statement for audiences in 2015. This class will focus on all such issues, textual and film production-oriented. There will be two papers and one final project.

Distributive: Dist:LIT; WCult:W

ENGL 51.04 - Stories At the Edge of the World: Conquest and Contact in the Age of Shakespeare

Instructor: Beckman

When did the world become global? Living an age of commerce and contact, the writers of Shakespeare's England were also diplomats, explorers, soldiers, colonizers, and cosmopolitans. They composed poems and plays with one hand and foreign dispatches with the other, each time wondering at the encounters and tensions of a rapidly expanding world. In this course, we'll explore stories of borderlands, wildernesses, colonies, voyages, and migration. As we read widely in literature and travel narratives—including Shakespeare's defense of refugees from the forgotten play, Sir Thomas More—we'll consider what these borderlands and exchanges offer the early modern imagination and what they looked like in reality. Along the way, we'll be challenged to consider how we tell stories about marginalized people and contested spaces in our own rapidly globalizing time.

Distributive: Dist:LIT; WCult:W

ENGL 51.13 - Gender and Power in Shakespeare

The course will begin by defining the varieties of power inscribed in Shakespeare’s plays, and proceed to explore the following questions. Is language gender-inflicted? Do men and women speak "different" languages? How do power and gender affect each other? How do women negotiate power among themselves? How do men? How is power exerted and controlled in sexual relationships? How do unspoken social definitions exert their power over the politics of gender? Possible works studied will be drawn from The Rape of Lucrece, A Midsummer Night's Dream, The Taming of the Shrew, The Merchant of Venice, Much Ado About Nothing, As You Like It, All's Well That Ends Well, Othello, Macbeth, Troilus and Cressida, Coriolanus, Antony and Cleopatra, and The Winter's Tale.

Distributive: Dist:LIT; WCult:W

ENGL 51.02 - Whitman and Dickinson

How did contemporaries Walt Whitman and Emily Dickinson respond to the challenges of their time, especially the Civil War? Examining their poetry in historical context enables us to see how they envisioned
America. The brash Whitman and reclusive Dickinson constructed elaborate personae that express different understandings of self and community. Dividing our time evenly between the poets, we will study the literary devices at their disposal, focusing on the way form influences meaning. Enrollment is limited to 30.

Distributive: Dist:LIT; WCult:W

ENGL 52.02 - The Civil War in Literature
Instructor: Boggs

Surveys in American literature often omit the Civil War. Yet the war called forth a vast range of literary responses, in genres as diverse as poetry, popular song, novels, and other prose genres. This course will examine how literature depicts the war, and where the limits of that depiction lie. Readings include Walt Whitman's Drum Taps, Herman Melville's Battle Pieces and Aspects of the War (1866), Louisa May Alcott's Hospital Sketches, Stephen Crane's Red Badge of Courage.

Distributive: Dist:LIT; WCult:W

ENGL 52.03 - Dave the Potter: Slavery Between Pots and Poems
Instructor: Chaney

This course examines the work of David Drake, a South Carolinian slave who made some of the largest ceramic storage vessels in America during the 1850s, signing them and etching sayings and poems onto them as well. This seminar engages with Drake's poetry-pottery through critical and historical research, interpretive writing, and our own creative adventures in ceramic handicrafts. In addition to writing your own updated imitations of Dave Drake's poetry and attempting ceramic facsimiles of his earthenware, students will also spend time in the letterpress studio as a means of acquiring a deeper historical and aesthetic appreciation of Dave's life and work; it was while working as a typesetter for a regional newspaper that Dave acquired literacy. As a culminating assignment, students will contribute chapters to a scholarly book on Drake, which the instructor will edit.

Cross-Listed as: AAAS 82.05 COCO 03.01
Distributive: Dist:ART

ENGL 52.04 - The American Renaissance at Dartmouth

F. O. Matthiessen coined the term “American Renaissance” in his groundbreaking book, The American Renaissance: Art and Expression in the Age of Emerson and Whitman (1941). At the outset of the nineteenth century American writers struggled with a sense of cultural inferiority and artistic belatedness. The “American Renaissance” demarcates a period as well as a cultural movement marked by intense literary activity between the 1830s and 1860s that aimed at the formation of a distinctively American literature. Matthiessen restricted the American Renaissance to the years between 1850 and 1855, an “extraordinarily concentrated moment of literary expression” (vii) that saw the publication of Nathaniel Hawthorne’s The Scarlet Letter, House of the Seven Gables, and The Blithedale Romance; Ralph Waldo Emerson’s Representative Men; Herman Melville’s Moby-Dick; Henry David Thoreau’s Walden; and Walt Whitman’s Leaves of Grass. In the years since the publication of Matthiessen’s important work, teachers and scholars in American literature have extended the American Renaissance’s chronological provenance at least as far back as the anti-slavery debates in the 1830s and as far forward as the termination of the Civil War. In the past several decades, Matthiessen’s argument has been challenged for its exaggeration of the originality of his coterie of male authors, for the exclusion of women and African-American and popular authors from his account of the United States during a period of remarkable social and cultural transformation, and for its seemingly uncritical acceptance of the doctrine of American exceptionalism. In light of these criticisms, scholars have added Emily Dickinson, Frederick Douglass, Margaret Fuller, Harriet Beecher Stowe, and Mark Twain (among others) to Matthiessen’s American Renaissance pantheon.

Distributive: Dist:LIT; WCult:W

ENGL 52.05 - Desire and Difference in 19th Century British Fiction
Instructor: Dever

This course will examine the phenomenon of moral panic in nineteenth-century British literature and culture through two linked but distinctive forms of sexual subjectivity: female heterosexuality and male homosexuality, connected forever in the 1885 Criminal Law Amendment Act that set the stage for the imprisonment of Oscar Wilde. We will consider the relationship between realist and sensationalist literary forms to trace the emergence and regulation of distinctly modern sexual subjectivities in mid- and late-nineteenth-century Britain.

Cross-Listed as: WGSS 48.08
Distributive: Dist:LIT; WCult:W

ENGL 52.06 - Media & Monstrosity
Instructor: McCann

The vampire, the doppelganger, the automaton, the femme fatale, the serial killer, even the city itself as a pathological public space: these figures inhabit popular fiction at the end of the nineteenth century, expressionist cinema at the start of the twentieth century, and have been staples of mass culture ever since. Focusing on the relationship between fin-de-siècle Gothic fiction and its early cinematic adaptation, this course will explore the images of...
ENGL 52.10 - Vox Clamantis: Wilderness in 19thC American Literature

Instructor: Chaney

Inspired by the motto of Dartmouth College, this course examines tropes of wilderness in nineteenth-century American literature and the types of voices that cry out within them. While helping to establish a national literary tradition, the American 'deserto' or wilderness has also functioned as a kind of rhetorical staging area, in which various (often competing) notions of individualism, community, and political philosophy emerge. As a result, the novels, poems, slave narratives, and short stories of nineteenth-century American literature abound with landscapes as social and psychological as they are physical. Authors will include Nathaniel Hawthorne, Edgar Allan Poe, Frederick Douglass, Emily Dickinson, Herman Melville, Henry David Thoreau, Charles Chesnutt, Mark Twain, and Willa Cather. Dist: LIT; WCult: W.

ENGL 52.11 - Daniel Webster and the Dartmouth College Case

Instructor: Bonner, Muirhead, and Pease

Two hundred years ago, in 1819, Daniel Webster argued a case in front of the Supreme Court defending his alma mater, Dartmouth College, against the predations of the State of New Hampshire. The Court found in favor of Dartmouth, which preserved the College as a private entity. Perhaps more importantly, it also laid the legal foundation for the modern economy, where corporate firms are to some extent free of state control. This course aims for a comprehensive understanding of the Dartmouth College Case and Daniel Webster by integrating the perspectives of American studies, history, political theory, and law.

Cross-Listed as: COCO 024 GOVT 60.18 HIST 90.06

ENGL 52.15 - Transatlantic Gothic

From crumbling monasteries and crafty priests, to bleeding nuns and fake hauntings, gothic novels exploded in popularity in late eighteenth century British print culture. But what happens when the strange tropes, figures, and rhetorical techniques of the gothic travel across the Atlantic to adapt to the dark pathologies and monstrous histories of the Americas? This course will expand notions of the gothic to frameworks that understand late eighteenth to early nineteenth century gothic literature as a transatlantic phenomenon.

Distributive: LIT

ENGL 52.16 - God, Darwin, and the Literary Imagination

Instructor: Harner

The publication of Charles Darwin’s *The Origin of Species* in 1859 caused a crisis in religious faith. Evolution brought God to his knees, or so the story goes. Yet this claim oversimplifies the situation. It underestimates how the Christian God and evolutionary theory both shaped debates and structures of thought in the nineteenth century. How did these “divergent” systems of belief shape how people understood the world and their place in it? How did writers use religious faith and/or scientific evidence to structure narrative and tell new types of stories? How did Darwin and other scientists use literary techniques to convey their ideas to a widespread audience? This course emphasizes close reading as well as historical and scientific context, focusing on five themes that arose from the juxtaposition of God and Darwin in nineteenth-century British literature and culture: Creation and Design, Selection and Extinction, Heredity and Development, Time and Progress, and Human/Animal.

Distributive: Dist:TMV; WCult:W

ENGL 52.17 - Victorian Children's Literature: Fairytale and Fantasy

Instructor: Harner

It is said that the Victorians “invented” childhood: a state of freedom, play, creativity, and innocence. The orphans, adventurers, tricksters, and runaways in Victorian children’s books make friends with pirates, talk to animals, fly through the sky, and fall down rabbit holes. What made these stories so popular in the nineteenth century, and why do they continue to enchant readers? This course explores the genre of Victorian children’s literature in relation to such themes as Romantic innocence, nature and animal studies, climate change, sexuality and queerness, evolution, colonialism and race, disability studies, global economics, and play. Throughout the course, we’ll think about how stories for children are constructed and how writers and artists have adapted these Victorian texts for
later audiences (e.g. through film, graphic novels, and fan fiction). The course will include both critical and creative assignments. Texts may include: Alice’s Adventures in Wonderland and Through the Looking Glass (Lewis Carroll), Treasure Island (Robert Louis Stevenson), The Jungle Books (Rudyard Kipling), Peter Pan (J. M. Barrie), The Secret Garden (Frances Hodgson Burnett), and fairytales by Oscar Wilde.

Distributive: Dist:LIT; WCult:W

ENGL 52.18 - Netflix and the Victorian Serial Novel
Instructor: Harner
How does the shape of a narrative change the way we experience it? Beginning in 1836 with Charles Dickens’ first novel, Victorian audiences often read texts as weekly and monthly ‘parts’ rather than as literary ‘wholes’. In 2007, Netflix introduced streaming, and in 2013, the company began producing original content. Instead of waiting a week for the next television episode, audiences could binge watch entire seasons (or more). Both the serial and digital streaming have been called revolutionary, but what does this mean? This course pairs Victorian serial novels and Netflix original series in order to think critically about structure and form. How does the play between serial part and whole necessitate new temporalities, strategies of characterization and narration, and types of suspense? How does binge-watching disrupt or reshape narrative time and sequencing? How have both new forms altered cultural discourses on gender, social consciousness, crime, and politics? How do narratives intersect with other types of seriality, including evolution, reproduction and inheritance, election cycles, and the #MeToo movement? This course emphasizes close reading and watching as well as narrative theory and reception and moves between nineteenth-century novels and twenty-first century series.

Distributive: Dist:LIT; WCult:W

ENGL 52.21 - Popular Fiction and the Culture of Empire
The nineteenth century saw an explosion in the diversity and commercial potential of popular fiction. Detective fiction, science fiction, and the Gothic novel are a few of the genres that came into their own during this period, partly as a result of their ability to evoke the fantasies and anxieties of Victorian Britain and its empire. In this course we will think about the relationship of popular texts to imperial visions of race, sexuality, exploration, evolution, extinction, and invasion. We will also look at the relationship between fiction, the commercialization of publishing and the emergence of new media technologies like photography and film. Writers may include Mary Braddon, H. Rider Haggard, Bram Stoker, H.G. Wells, Robert Louis Stevenson, Arthur Machen, Arthur Conan Doyle, and Marie Corelli.

Distributive: LIT

ENGL 53 - Topics in Course Group III: Literature of the Nineteenth Century
These courses are offered periodically with varying content: one or more individual writers, a genre, or an approach to the literature of this historical period not otherwise provided in the English curriculum. Requirements will include papers and, at the discretion of the instructor, examinations.

ENGL 53.04 - Telling Stories for Social Change
Instructor: Schweitzer, Hernandez
Telling My Story for Social Change uses readings in theory and practice (journals, exercises, performance) to explore the difficult themes of Race, Class, and Gender. By practicing listening, speaking and withholding judgment in a group, we build relations based on trust, communication, and dialogue. To do this, we must first identify and dismantle the visible and invisible walls of preconception and bias that surround us, which many times we actively help to create and maintain.

Cross-Listed as: WGSS 66.05
Distributive: Dist:ART; WCult:CI

ENGL 53.05 - Writing Dublin: On Saints, Sinners, and Rebels
Joyce famously asserted that should Dublin burn to the ground future planners and architects would be able to rebuild it perfectly through the blueprint of the city described in his novel Ulysses. In this course we will, via the close reading of its literature and its history, create our own distinct blueprint of Dublin, and attempt to write our own narratives of the city. We will study the ways in which literature contributes to a particular imagined cosmopolitan that is not only necessary to the vital life of the city but also to the cultural identity of its people. Some of the writers to be considered include: James Joyce, Sean O’Casey, Samuel Beckett, Flann O’Brien, Aiden Higgins, Brendan Behan, Patrick Kavanagh, Emma Donagheue, Claire Keegan, Roddy Doyle, Colm Tóibín, John Banville, Eavan Boland, Anne Hartigan, Kevin Barry, Bernard McLaverty, Patrick McCabe, Neil Jordan, Edna O’Brien, Sebastian Barry, Colum McCann, Eilis Ni Dhuibne and Anne Enright. Students planning to enroll in the Dublin FSP are especially encouraged to take this course; all students are welcome.

Distributive: Dist:LIT; WCult:W

ENGL 53.06 - Women's Literature and Technologies of Transmission from the Long Nineteenth Century to the Present
In this course, we will explore women's writing and different technologies that transmit those texts from the long nineteenth-century to the present. Our goal is to think about how these works - their genres, forms, circulation,
and content - shape impressions of and access to women's writing. Our analyses will traverse a range of works and media from nineteenth-century poetry and serial novels to contemporary electronic editions.

Cross-Listed as: COLT 18.01
Distributive: Dist:LIT; WCult:W

ENGL 53.07 - Black Noir

In this course, we will study black American literature that focuses the noir genre on black people themselves. We will read gritty, urban crime novels that attempt to expose inequities in black American lives and dispel the notion that a descent from whiteness results in blackness. Rather, the black people in these texts exist in darkness because they are living in alienated communities. We shall investigate how the noir genre is altered when "noirs" are the subjects and the authors. In addition to primary texts, the course will engage critical responses to these works.

Cross-Listed as: AAAS 81.07 FILM 47.25
Distributive: Dist:LIT; WCult:W

ENGL 53.08 - Weird Fiction and the Limits of the Human

What makes the dark so terrifying? Why do humans use fiction to invent strange creatures and supernatural threats? How does horror contribute to what it means to be human? What does the weird or the strange tell us about society? This course examines the literary, philosophical, and social aspects of weird fiction, a tradition of literature and genre fiction running from the early nineteenth century up to the present. It examines the most well-known writer of the weird, H.P. Lovecraft, but it also looks at work by Mary Shelley, Edgar Allan Poe, Octavia Butler, Victor LaValle, Kelly Link, Jeff VanderMeer, and others. The course introduces students to the study of genre fiction, theoretical approaches to literature (including posthumanism, psychoanalysis, and ecotheory), and cultural studies (including critical race theory and feminism). It asks students to consider how weird fiction challenges racism, misogyny, homophobia, and colonialism. While no prior training in critical theory is necessary, students are encouraged to have some familiarity in analyzing and writing on literature. The class will also offer opportunities for creative efforts and experimental writing.

Distributive: Dist:LIT; WCult:W

ENGL 53.10 - Immigrant Women Writing in America

In responding to the obstacles facing America's immigrants -- problems of xenophobia, dislocation, split identity, family disunity and claustrophobia, culture shock, language barriers, economic marginality, and racial and national oppression -- women often assume special burdens and find themselves having to invent new roles. They often bring powerful bicultural perspectives to their tasks of survival and opportunity seeking, however, and are increasingly active in struggles for cultural expression and social and economic justice. We will examine the different conditions for women in a variety of immigrant groups in America, reading in several histories, anthologies of feminist criticism, interdisciplinary surveys, and relevant texts in critical theory, and on the words, in autobiography, poetry, and fiction, of foreign-born women writers. We will read such works as Maxine Hong Kingston's The Woman Warrior; Bharati Mukerjee's Darkness; Marilyn Chin's The Phoenix Gone; Jamaica Kincaid's Lucy; and Shelly Ori'a's New York 1, Tel Aviv 0.

Cross-Listed as: WGSS 47.01
Distributive: Dist:LIT; WCult:W

ENGL 53.16 - African Literatures: Masterpieces of Literature from Africa

Instructor: Coly

This course is designed to provide students with a specific and global view of the diversity of literature from the African continent. Through novels, short stories, poetry, and drama, we will explore such topics as the colonial encounter, the conflict between tradition and modernity, the negotiation of African identities, post-independence disillusion, gender issues, apartheid and post-apartheid. Readings include Chinua Achebe's Things Fall Apart, Naguib Mahfouz's Midaq Alley, Calixthe Beyala's The Sun Hath Looked Upon Me, Camara Laye's The African Child, and Luandino Vieira's Luanda. Formerly English 67.16.

Cross-Listed as: AAAS 051 COLT 051 COLT 51.01 ENGL 067
Distributive: Dist:INT or LIT; WCult:NW

ENGL 53.17 - The Graphic Novel

Instructor: Chaney

What happens when normally separate symbol systems like pictures and words converge? This course investigates that question by examining graphic novels and the theoretical insights they have elicited. Discussions will explore issues of autobiography, counterculture, parody, and fantasy. Typical authors include Art Spiegelman, Alan Moore, Chris Ware, Marjane Satrapi, Daniel Clowes, Alison Bechdel and several others. In addition to a presentation, students will write two formal essays and several short responses.

Distributive: Dist:LIT; WCult:W

ENGL 53.19 - Faulkner

The course will focus on Faulkner's fiction of the American South: its haunted culture, its racism, its legends. We will read The Sound and the Fury, As I Lay Dying, Absalom Absalom!, Light in August, selections from Go Down, Moses, and The Hamlet. Faulkner's place
in the history of modernism will be a continuing concern, as will important critical readings of the novels.

Distributive: Dist:LIT; WCult:W

**ENGL 53.20 - Indian Killers: Murder and Mystery in Native Literature and Film**

Instructor: Benson Taylor

This course explores the abundant crime fiction and murder mysteries by contemporary Native American artists. These works imagine a democratized space where colonial violence is avenged, American law is malleable, and intellect triumphs over racism. While most critics applaud such decolonizing efforts, we will ask more difficult questions: do these sensational narratives do real cultural work? Do they suggest that colonial violence begets only more violence? And in the end, who are its true victims?

Cross-Listed as: NAS 32

Distributive: Dist:LIT; WCult:W

**ENGL 53.22 - Science Fiction Studies**

Instructor: Evens

This class will examine the development of science fiction as literature, considering the distinctive characteristics of the genre. We will read critical perspectives on scifi that connect it to both modern and postmodern themes; we will think through the politics of scifi, focusing especially on its utopian and dystopian elements; we will articulate the many subgenres of scifi; we will investigate the unusually strong influence of the community of readers on the published texts in scifi. But primarily we will read representative examples, novels, stories, and even some films, from well-known classics to little-known and marginal texts. Authors may include John Campbell, Isaac Asimov, Ursula Le Guin, Arthur Clark, Philip Dick, Octavia Butler, William Gibson, James Tiptree, Jr., Stanislaw Lem, Yevgeny Zamyatin, Samuel Delaney, Bruce Sterling, Neal Stephenson, Greg Egan, Ted Chiang, and still others. The class will have an opportunity to shape the syllabus somewhat according to the preferences of enrolled students.

Distributive: Dist:LIT

**ENGL 53.23 - Caribbean Lyric and Literature**

This course will examine the work of a variety of Caribbean writers from former British colonies. We will look at several issues that reappear throughout the work of these authors. The class will move from early twentieth century writers like Claude McKay to the important contributions of later writers such as Kamau Brathwaite, Jamaica Kincaid, George Lamming, V.S. Naipaul, Sam Selvon, Olive Senior and Derek Walcott. We will examine the more recent innovations in form, as musical elements are introduced by writers such as Mikey Smith and Kwame Dawes. Each week's readings will be supplemented with seminal critical writings including excerpts from the text *The Empire Writes Back*.

Distributive: Dist:LIT; WCult:CI

**ENGL 53.25 - Contemporary Native American Poetry**

Muscogee poet, Joy Harjo has stated that Native Peoples are "...still dealing with a holocaust of outrageous proportion in these lands...Many of us...are using the 'enemy language' with which to tell our truths, to sing, to remember ourselves during these troubled times." This course examines the ways contemporary American Indian and other indigenous poets employ literary gestures of resistance and creativity to outlive the ongoing effects of colonialism. We explore how their poetry contributes to the reclamation and continuity of tribal memory and the regeneration of tribal traditions and communities. Our course includes lyric voices from the reservation, from the city, and from indigenous spaces in dysporic and global contexts. We will examine the combined influences that oral tradition, ritual life, and tribal values have on these contemporary poets. The indigenous poetic voice occupies a unique position in contemporary American poetry, but also in the discourse of settler colonialism. This course traces how the themes of these poetic voices bring forward images of past and contemporary experience, to craft a poetic tradition that is distinctly indigenous. Open to all classes.

Distributive: Dist:LIT; WCult:CI

**ENGL 53.26 - From More Fun to Fun Home: A History of the U.S. Comic Book**

This course examines the development of the American comic book in its historical, cultural, and political contexts. Key topics include: pre-comics visual storytelling and the conceptual problems with seeking such precedents; the explosion of the American comic strip during the Yellow Journalism period; the formats, forms, and genres of the early comic book industry; the rise of DC Comics, home to Superman; artist-run "shops" and the development of romance and horror comics; the 1950s Kefauver hearings and the introduction of the Comics Code; the “Silver Age,” the decline of DC and the rise of Marvel Comics; Underground Comix and Sixties counterculture; censorship and creative rights skirmishes of the 1980s and 90s; and the legitimization of comics as “graphic novels.” Along the way, we will read historical comics (in reprint anthologies) to explore the comics form: visual narration, the development and assignment of distinct styles to different genres, and the historical import of individual creators from Jerry Siegel and Will Eisner to Alison Bechdel and the Hernandez Brothers.

Distributive: Dist:LIT; WCult:W
ENGL 53.27 - The African American 1960s
The decade of the 1960’s brought the Voting Rights and Civil Rights Acts to American politics. What did it bring to African American literature and culture? This course will take a year-by-year approach to understanding the artistic and cultural transformations of Black culture during this turbulent decade. Beginning with Lorraine Hansberry’s play A Raisin in the Sun, we will examine major social and artistic issues of the decade by reading a variety of fiction, poetry and memoir. Writers we will study may include Amiri Baraka, Robert Hayden, James Baldwin, Dick Gregory, John Williams, Lucille Clifton, Sonia Sanchez and Eldridge Cleaver. Topics may include the rise of African American popular culture (such as Motown and Stax Records), Vietnam, the Civil Rights Movement, feminism and Black nationalism.

Distributive: Dist:LIT; WCult:W

ENGL 53.28 - James Baldwin: From the Civil Rights Movement to Black Lives Matter
The 2016 film I Am Not Your Negro encourages a new generation to explore the life and work of James Baldwin (1924-1987). Directed by Haitian-born filmmaker Raoul Peck, I Am Not Your Negro is a provocative documentary that envisions a book Baldwin never finished by providing insight into Baldwin’s relationship with three men who were assassinated before their fortieth birthdays—Medgar Evers, Malcolm X, and Martin Luther King, Jr.

In this course we will interrogate questions of race, sexuality, violence, and migration. Our current political moment encourages the examination of these issues while Baldwin's life and work provides the ideal vantage point for their investigation. Using I Am Not Your Negro as our starting point, Baldwin's life and work will allow us the opportunity to explore transatlantic discourses on nationality, sexuality, race, gender, and religion. We will also explore the work of other writers including Richard Wright, Frantz Fanon, Audre Lorde, and Ta-Nehisi Coates.

Cross-Listed as: AAAS 81.10
Distributive: Dist:INT or SOC; WCult:CI

ENGL 53.29 - Introduction to African American Environmental Thought: The Black Outdoors
The persistence of black life, and blackness as a way of thinking about the organization of both human and nonhuman forms of life, has been absolutely central to the story of the United States and the Americas more broadly. This course provides an interdisciplinary exploration of the writing of thinkers from across the African diaspora, with special emphasis on literary works and criticism centrally concerned with the intersections of black literary studies and African American environmental thought. We will draw on a range of texts in order to wrestle with some of the key concerns of African American writers from the 19th century through the present. Students will be introduced to a range of methods and approaches to the interdisciplinary work of black literary studies. By the end of the course, students will be expected to possess a working knowledge of several major themes, figures and moments within the black expressive tradition.

Cross-Listed as: AAAS 35.50
Distributive: Dist:LIT; WCult:W

ENGL 53.30 - Women Writing Memoir
This course examines the autobiographical writing of a variety of women from across the globe. Paying attention to the socio-political contexts within which these women write, we will discuss the ways in which these authors negotiate different worlds while being marginalized along vectors such as race, class, and gender. For this reason, the class is inherently interdisciplinary. Most of the works we will examine have achieved significant critical acclaim, and we will also examine the artistic innovations in these narratives. Texts will include works such as Staceyann Chinn’s The Other Side of Paradise, Jackie Kay’s Red Dust Road, Julie Marie Wade’s Wishbone, Jesmyn Ward’s Men We Reaped, Jeanette Winters’ Why Be Happy When You Could Be Normal?, Malala Yousafzai’s I am Malala, Janet Mock’s Redefining Realness and Dorothy Allison’s Bastard out of Carolina

Cross-Listed as: AAAS 88.13
Distributive: Dist:INT or LIT; WCult:NW

ENGL 53.32 - Literature and Culture of the Americas
Instructor: Stuelke
This course surveys a series of critical paradigms for studying the literature and culture of the Americas. We’ll explore a variety of approaches to hemispheric literary and cultural studies, which may involve analyzing comparative and shared romantic and revolutionary discourses; border cultures; state-sponsored literary institutions that cross national borders; inter-American attempts to imagine solidarity; and hemispheric aesthetic strategies and genres for mapping US empire, global capitalism, and settler colonialism. Authors may include Leonora Sansay, Martin Delany, Carmen Lyra, Gabriel García Márquez, Jamaica Kincaid, Valeria Luiselli, Fernanda Melchor, and Silvia Moreno-Garcia. All texts are available in English or in translation.

Distributive: Dist:INT or LIT; WCult:W

ENGL 53.33 - Gender and Sexuality in Asian American Literature
Focusing on contemporary Asian American literature, film, and popular culture, this course emphasizes a diverse range of engagements with gender and sexuality that disrupts binary thinking on the topic. Through close analysis of
cultural texts, students will examine the formation of Asian American genders and sexualities alongside histories of racialization, migration, and labor. Texts may include: Monique Truong’s *The Book of Salt*, David Henry Hwang’s *M Butterfly*, R. Zamora Linmark’s *Rolling the R’s*, Justin Lin’s *Better Luck Tomorrow*, as well as episodes of *Battlestar Galactica* and 24. We will also read critical essays by Gayatri Gopinath, David Eng, Yen Le Espiritu, Karen Tongson, Lisa Nakamura, and Martin Manalansan.

Cross-Listed as: WGSS 36.06
Distributive: Dist:LIT

**ENGL 53.34 - The Wire**

Though David Simon’s Baltimore cop drama was not the popular sensation when it aired (2002–2008) that “Breaking Bad” or “Game of Thrones” are today, it is widely considered one of the best shows in television history. Over sixty episodes the fascinating and often disturbing series explores a range of social and political issues familiar in contemporary American cities, but it does so with unusual literary ambition and success. In the course, we’ll treat the series as a work of literature—asking how its use of plot, narrative, character, conflict, etc. recalls the artistry of Sophocles, Shakespeare and, especially, Dickens. Readings will include texts from each of these authors and all five seasons of the show, as well as analyses of individual episodes.

Distributive: Dist:LIT

**ENGL 53.35 - From Diaspora Practices to Theory**

What is an epic and how do its imaginary, cultural, and rhetorical impulses of displacement, unknown cartographies, madness, new identities, conceptual crossroads and translation lead to an eventual theorization of diaspora? The course has three inter-related goals: to study six examples of epic in the Black Diaspora moving from West Africa to the Anglo-Franco-Hispano-phone Caribbean; 2. to relate these texts to diaspora pathogen and food-ways, spiritual practices and converging African and New World histories; and 3. to consider diaspora and chaos theory.

Cross-Listed as: AAAS 88.12
Distributive: Dist:LIT; WCult:CI

**ENGL 53.36 - Game of Thrones: Re-Imagining Medieval History as an Allegory of the Present**

This course is scheduled to coincide with the airing of the eighth (and final) season of *Game of Thrones*, and with Dartmouth Alumnus David Benioff’s tenure as Montgomery Fellow. Class participants will devote scrupulous interpretive attention to the six published works in *A Song of Ice and Fire* -- *A Game of Thrones: A Clash of Kings, A Storm of Swords, A Feast for Crows, A Dance with Dragons, The Winds of Winter*. During the first five weeks of the course, students will be asked to explain what elements of the first of George R.R. Martin’s medieval romance, *A Game of Thrones*, Benioff and Weiss revised, or deleted in adapting it to each of the ten episodes in first season of *Game of Thrones*. The second five weeks will be devoted to discussions of each of the ten episodes of the eighth and final season of *Game of Thrones*. In conducting these investigations, students will draw on a trove of library documents -- sagas, medieval romances, travel narratives, histories, legal documents, hagiographies, political tracts, philosophical discourses – and learn how the aforementioned disciplinary perspectives alter and enrich their understanding of these artifacts.

Distributive: Dist:LIT; WCult:W

**ENGL 53.37 - Global Comic Strip**

The course focuses on comic strips from around the globe as a means of studying critical and literary theory, problems in visual translation, and a range of conventions for expressing caricature and visual humor. Topics will move from classic American comic strips to the Franco-Belgian and Japanese Manga traditions; thereafter, students will examine other traditions both collaboratively and independently.

Cross-Listed as: COLT 40.06
Distributive: Dist:LIT; WCult:W

**ENGL 53.38 - Narratives of Un-belonging: Bad Asians, Queer Texts**

What makes an Asian/American “bad” and what makes a text “queer”? How does one shed light and offer insight on the other? How might the “bad” and the “queer” name the refusal and failure to assimilate and align oneself with racial capital, settler colonial logics, and reproductive futurity? How might both terms require us to rethink what narratives of belonging look, feel, and sound like and in turn, become the grounds for alternative solidarities, affiliations, and intimacies across lines of minority difference? To answer these questions, we will engage with primarily contemporary Asian/American works of literature, poetry, film, performance, and art that alters, disrupts, and varies Asian/American narratives of migration, assimilation, and upward mobility. Through these works, we will address historical processes of Asian/American racial, gender, and sexual formation by way of the “bad” and the “queer,” as transformative political and aesthetic categories of inquiry that risk failing to fit in, being wrong, and not belonging.

Cross-Listed as: WGSS 51.10
Distributive: Dist:LIT; WCult:CI

**ENGL 53.39 - Haunted Houses in American Literature**

Instructor: Clark
This course takes a tour of haunted houses in American literature and film. What happens when the specter-filled estates of the European Gothic novel are transposed from the wild and windy moors of England into the corn fields of middle America? Or the hallways of the apartment building? Or the bungalows of suburbia? What does it mean to be haunted? What does it mean to be a house? Visiting mansions and plantations, churches and asylums, apartments and cabins, wombs and spaceships, we will consider who—and what—has been haunting the dwelling places of the 20th century and contemporary American imaginary. Authors will include William Faulkner, Edgar Allan Poe, and Shirley Jackson.

Distributive: Dist:LIT; WCult:W

ENGL 53.40 - The Historical Philosophy of W.E.B. Du Bois

This course will examine the historical philosophy of the towering Black scholar and great freedom fighter of the 20th Century. We shall engage in close readings of Du Bois’ classic work, *The Souls of Black Folk* (1903) as well as subsequent essays in his magisterial corpus, especially his classic autobiography, *Dusk of Dawn* (1940).

Cross-Listed as: AAAS 80.10 PHIL 01.13

ENGL 53.41 - Black Love & Its Discontents: Barry Jenkins

Instructor: Bennett

How might we think about the shape, tenor, and texture of something like black love, its core principles and practices, in a world where anti-black sentiment serves as a structural logic? In the midst of such unrelenting violence, how have black people managed to love each other, love themselves, love living? What language have they crafted, historically, to describe such an expansive, radical project? For the purposes of this course, we will linger with a wide range of cinematic and literary moments with the aim of framing a much larger conversation about the uses of black art-making as a means through which we might access a critical vocabulary for black feeling; might assert the breaking into the world of a black love that is both resistance and that which exceeds it, love as a sort of black operation, black love as an act of marronage. Towards that end, this course will employ the films of contemporary writer and director Barry Jenkins, and place them in direct conversation with a larger constellation of writings within the African American literary tradition. Through our collective investigation of these texts, we will work together toward the elaboration of an aesthetics of black love.

ENGL 53.42 - Postmodern" Britain: Fictions of Pluralism, Dystopia (and Brexit)

Instructor: Harner

Contemporary Britain can be seen as a divided state: leave versus remain, cosmopolitan urbanism against conservative rural communities, post-imperial malaise and the rise of global Anglophone influence. Britain is also a literary hotbed, home to the Man Booker Prize for Fiction and an arena in which cultural production (and social debates) still take the form of narrative. What is “Britain” at the start of the twenty-first century, in what is ostensibly a post-war, post-imperial, and post-modern era? How do fiction writers respond to the twin pulls of national nostalgia and multicultural, intersectional identities? How do experiments in narrative form and genre speak to the emergence of new social and political formations? How does contemporary British fiction adapt or respond to a longer (and well-established) lineage of UK novelists (from Austen and Dickens to Virginia Woolf)? This course focuses on British fiction published after 1980, including works by authors who identify as Black British, queer, feminist, Muslim, and immigrant. Possible authors include Zadie Smith, A. S. Byatt, Ian McEwan, Sarah Waters, Kazuo Ishiguro, Jeanette Winterson, and Hanif Kureishi.

Distributive: Dist:LIT; WCult:W

ENGL 53.43 - Race and Modernity: W.E.B. DuBois, James Baldwin, Lorraine Hansberry

This course will examine the classical works of three towering modern intellectuals: W.E.B. Du Bois, James Baldwin, and Lorraine Hansberry. We will wrestle with the rich formulations, subtle arguments, and courageous visions of three Black thinkers who continue to speak with power and passion to our turbulent times.

Cross-Listed as: AAAS 21.10 PHIL 01.17

Distributive: Dist:LIT; WCult:W

ENGL 53.44 - Indians in American Literature

Indians are uncanny absences in the American narrative and yet persistent fixtures in our national literature from its origins to the present day. This course examines the pervasive appearance of the seductive, strange, and evolving Indian figure in works by prominent American authors such as Nathaniel Hawthorne, Herman Melville, James Fenimore Cooper, William Faulkner, Ernest Hemingway, Willa Cather, and Toni Morrison. We will explore the shifting and ideological role of the Indian as tragic emblem, savage defender, spiritual ally, and modern foil. We will explore the complicated ways that the literary Indian has served to both authenticate and trouble the nation's founding narratives and desires, and more recently, to stand as a mythical antidote to postmodern crises of value, economics, ecology, and spirituality. We will consider the appeal of such tropes in particular regional and historical contexts, such as the Reconstruction South, as well as racial or ethnic ones, such as the African American appropriation of Indian resistance, nobility, and genealogies.
Cross-Listed as: NAS 031
Distributive: Dist:LIT; WCult:W

**ENGL 53.45 - Storytelling in Novels and Community**
Instructor: McKee

This course will focus on the role of storytelling and its importance to community in works of literature and anthropology. Rather than study short stories, we will consider why novels, as longer forms of fiction, nevertheless include storytelling by characters. How does such storytelling work? We will read several twentieth-century novels in which characters telling stories function as means of reforming community. In novels and anthropological study, we will pay particular attention to the ways that storytelling can reconceive identities of individuals and of history, at times opening up both so that persons and history become diverse and extensive. The boundaries of community may also become extensive, resisting containment and refusing to conform to a common cultural identity. We will read Walter Benjamin’s essay “The Storyteller” as well as several critical essays focusing on storytelling. Novels will include William Faulkner’s *The Hamlet* and *Absalom, Absalom*, Michael Ondaatje’s *The English Patient*, and Toni Morrison’s *Paradise*. Works of anthropology will include Kathleen Stewart’s *A Space on the Side of the Road: Cultural Poetics in an “Other” America*.

Distributive: Dist:LIT; WCult:W

**ENGL 53.46 - New York and the Metropolitan Imagination in Twentieth-Century American Jewish Literature**
Instructor: Caplan

This course will offer an introduction to American Jewish culture by focusing on the perception of New York City among successive generations of Jewish writers, performers, and cultural activists. Although our focus will be primarily on literary sources, in English and translated from Yiddish, we will also consider memoirs, political documents, journalism, music, and film. The topics we will consider include: How are the ambivalences of immigration expressed among Jewish immigrants writing, alternately, in English or in Yiddish?

How does the city provide new modes of expression for Yiddish writers?
How does music offer a venue for Jewish performers to enter an American “mainstream” while preserving an audible sense of Jewish difference?
How do Yiddish writers address the Holocaust, and what challenges emerge when translating Yiddish into English after the Holocaust?
How do post-War Jewish intellectuals, the children of immigrants, critique their society and influence the development, and denouement, of American liberalism?
How does the “sexual revolution” challenge notions of a distinct Jewish ethnicity and ethos, and what strategies do Jewish authors develop to critique changing mores and morals from a specifically Jewish perspective?

How does an avant-garde Jewish theatre contribute to a contemporary understanding of American culture as multiculture, hybrid, and hyphenated?

Cross-Listed as: JWST 021
Distributive: Dist:LIT; WCult:CI

**ENGL 53.47 - African Diaspora Women Writers**
Instructor: Brown

This course will be organized around four themes prevalent in contemporary portrayals of Black women across the African diaspora. The themes, *Body, Voice, Memory, and Movement* provide a center from which discussions of agency, representation and counter-narrative can be situated within a larger discourse of canon formation. We will explore various parts of the United States and the Caribbean through analyses of literature and visual culture, paying particular attention to shifting dialogues of culture and identity. Among the central questions posed will be: What constitutes a feminist ideology in black women’s literature? How are images of subjection and victimization re-appropriated by Black women writers and image-makers and utilized for their own empowerment? What are the penalties inherent when a Black woman “comes to voice” in the arena of self-representation?

Cross-Listed as: AAAS 67.06 WGSS 66.07
Distributive: Dist:LIT; WCult:CI

**ENGL 53.48 - Poetry for the People**

The central concern of this class is the historical relationship between the social lives of everyday people and U.S. American poetics, with a special emphasis on what June Jordan once termed the “difficult miracle of Black poetry in America.” How does poetry help us to know one another? And how might we better understand the particular role of poetry, of *poiesis*, for those historically barred from the very practice of reading or writing, from ownership (even of one’s own body), and various generally recognized forms of belonging? For the purposes of this course, these will be some of our animating questions.

As a group, we will study the works of Audre Lorde, Toni Morrison, Tongo Eisen-Martin, Jericho Brown, and Claudia Rankine, among others. Largely toward the end of elaborating, in concert, a working theory of social poetics, a poetics of sociality, a new way for us to be together in a cultural moment marked by distance, as well as the
ENGL 54.01 - Shakespeare Adaptations

What happens when movie writers and directors adapt Shakespeare’s plays for the screen? How does an audience’s awareness of a literary precedent influence reception? What kinds of adaptations do we value and what role does their faithfulness to originals play? This course will look at twelve adaptations of major plays that most consider somewhat radical (e.g. Chicken Rice War; Omkara, Ran, Forbidden Planet, Scotland, P.A.) exploring the conceptual and cinematic strengths of the adaptations, as well as what their attempts to preserve or recast elements of Shakespeare’s plays reveals about the energies of the originals. Each film should thus prove a site of discussion in its own right, as well as an interpretive text that both critiques and argues the merits of the source text. Students can expect to read seven plays and see at least two adaptations of each, writing short responses to each play and film on canvas. Course Group IV

Distributive: Dist:LIT; W Cult:W

ENGL 54.02 - Arts of Laughter: Comedy and Criticism

What makes us laugh? Does laughter have the power to change the world? Can comedy transform society? These are only some of the questions that this course addresses. This course examines literary works, stand-up comedy, rom-coms and classic Hollywood comedy, and sit-com television (among other comedic forms) in order to consider the capacity for comedy to criticize the status quo and effect social change. It also investigates theoretical approaches to comedy and laughter, such as Sigmund Freud’s psychoanalytic interpretation of jokes and Henri Bergson’s philosophy of laughter, which ask why we laugh in the first place. Literary works and films may include Shakespeare’s Twelfth Night, Samuel Beckett’s Waiting For Godot, Charlie Chaplin’s Modern Times, and Judd Apatow and Amy Schumer’s Trainwreck. We will also discuss stand-up performances by the likes of Aziz Ansari, Louis C. K., and Margaret Cho; sit-com programs including I Love Lucy, Blackish, and Fresh Off The Boat; and skit shows such as Saturday Night Live and Chappelle’s Show. Students will have the opportunity to not only write about comedy but also produce and perform comedy. Enrollment limited to 30.

Distributive: Dist:LIT; W Cult:W

ENGL 54.03 - Young Adult Literature

This course explores the genre of young adult fiction in the 20th and 21st centuries. While the course will begin with a brief consideration of the conventions and early history of the genre, most of the course will examine post-1970s (mostly American) young adult novels. We’ll trace the evolution of the genre in relation to ideas of racial innocence, sentimentality, consent, queer childhood, and revolutionary girlhood, and position the novels within historical contexts such as the rise of mass incarceration, settler colonialism, fantasies of post-racial politics, and environmental disaster. At the end of the course, we’ll consider how young adult novels have created not just reading but creative communities, and explore the kinds of fan productions that have emerged in relation to young adult novels. The course will include critical and creative assignments. Texts may include The Hunger Games; the Harry Potter series; Are You There God; It’s Me Margaret; The Outsiders; The Astonishing Life of Octavian Nothing; Vivian Apple at the End of the World; Fangirl; Aristotle and Dante Discover the Secrets of the Universe; Absolutely True Diary of a Part-Time Indian; The Fault in Our Stars; Ship Breaker; Long Division; Monster; Akata Witch; Make Your Home Among Strangers.

Cross-Listed as: WGSS 51.09

Distributive: Dist:LIT; W Cult:CI

ENGL 54.04 - Beautiful, Ugly, Cute, Dumpy: An Introduction to Aesthetics

This course is an introduction to literary aesthetics, beginning with Immanuel Kant’s The Critique of Judgment (1790), a foundational text of Western aesthetics which provocatively and systematically explains how people enjoy and judge art, and why they discuss it together. Careful analysis of Kant’s Critique will be followed by revisions and extensions of his theory of taste in 20th and
21st century aesthetics and literary theory. This includes Austin, Genette, Adorno, Zangwill, Ngai, among others.

Distributive: Dist:TMV; WCult:W

ENGL 54.05 - Animal Studies: Theory, Literature, Politics
Instructor: Harner
The emergent field of animal studies tackles pressing philosophical and ethical questions about who we are as a species. How are the distinctions between “animal” and “human” understood, destabilized, and/or deconstructed? What does it mean to recognize animals as sentient beings endowed with their own agencies rather than objects for use by humans? This course provides an introduction to animal studies, including such questions as inter-species communication, extinction, animal rights, ecologies, and species identities. Students will study texts across the interdisciplinary field by such authors as Lacan, Derrida, Deleuze, Haraway, Wolfe, Chen, and Moore, as well as foundational texts by Darwin, Montaigne, and Freud. As a class, we will discuss how theoretical perspectives on animals alter our readings of literary texts—including fiction by such authors as Rudyard Kipling, J. M. Coetzee, Karen Joy Fowler, Virginia Woolf, Yann Martel, and Franz Kafka—even as we raise contemporary concerns about climate change, extinction, and species justice.

Distributive: Dist:LIT; WCult:W

ENGL 54.11 - Poetry and Poetic Theory
Instructor: Tanoukhi
In this course, we will primarily examine theories of poetry, relying mainly on The Norton Anthology of Criticism and Theory and Poetry in Theory, 1900-2000 (Blackwell). These volumes provide a rich, comprehensive overview of poetic theory from its beginnings in Greek antiquity virtually to the present, covering Anglo-American, Continental, and other theorists. No single poetry anthology will be used, but poetic examples will be studied at every stage, generally posted on Blackboard. We will consider the "philosophy" of poetic composition in different historical periods and contexts, and will examine the continuing interplay between poetic theory and practice. The point of the course will be to get a grip on ways in which people have thought about poetry from the earliest times to the present, and to consider the sometimes antagonistic interplay between theorizing about poetry and writing it.

Distributive: LIT

ENGL 54.13 - Digital Game Studies
Instructor: Evens
This course explores digital gaming. Reading academic and popular texts, we will situate digital gaming in relation to new media, visual, and literary studies. Class discussion will focus on outstanding problems in digital game studies: Where do the histories of technology and gaming meet? How do games change players and how do games shape culture? What about designers and programmers? In what ways are digital games playful and what aspects of them are expressive? What is the future of gaming? Of course this class will also study particular games, and, in addition to writing academic essays, students will invent individual and group projects in the game domain.

Distributive: TAS

ENGL 54.15 - History of the Book
Instructor: Halasz
This course examines the book as a material and cultural object. We’ll consider various practical and theoretical models for understanding the book form and investigating the materials, technologies, institutions, and practices of its production, dissemination, and reception. We’ll focus primarily on the printed book in Western Europe and North America, but we’ll also discuss the emergence of the codex (book), medieval manuscript books, twentieth and twenty-first century artist’s books and the challenges posed by digitality to the book form. The readings for the course will be balanced by frequent use of exemplars drawn from Rauner Library and practical experience setting type in the Book Arts workshop.

Cross-Listed as: COLT 40.01
Distributive: Dist:LIT; WCult:W

ENGL 54.16 - Literary Classics
Instructor: Tanoukhi
Hamlet, Paradise Lost, Pride and Prejudice, Wuthering Heights, The Waste Land: These texts are among the cornerstones of a literary canon that still exerts enormous influence even as it is intensely contested. How does a play, a novel, or a poem become a “literary classic”? In this course, we will read a series of indisputably “great” texts in order to understand the complex forms of evaluation (aesthetic, political, moral, and commercial) that both underpin and revise notions of canonicity. Drawing on theoretical work by Gauri Viswanathan, Pierre Bourdieu, Theodor Adorno, and Pascale Casanova, we will also consider the varied institutional contexts (from the colonial civil service to the liberal arts classroom, from small presses to multinational publishers, from Masterpiece Theatre to contemporary Bollywood) that govern these processes.

Distributive: Dist:LIT; WCult:W

ENGL 54.17 - Psychoanalysis and Philosophy
Instructor: Halasz
This class will stage an encounter between psychoanalysis and philosophy, introducing students to both fields by placing them side by side. Drawing on the complementary expertises of the two-person teaching team, weekly readings will pair at least two texts, including one from
ENGL 55.07 - The Arts of War

Walt Whitman said of the American Civil War: "the real war will never get in the books." This course will raise core questions about how war is remembered and represented through text, performance, and visual culture. Our questions will be anchored in concrete case studies but will also raise far-ranging philosophical, ethical, and historical questions that examine instances of war in relation to the aesthetics of war.

Distributive: Dist:INT or ART

ENGL 55.08 - Neuroscience and the Novel

Over the past few years it has been suggested that since the 1990s there has been a major shift in how novels represent characters and consciousness. This new type of novel has been called the "neuronovel." This course takes up
questions at the intersection of psychology, neuroscience, and literary studies to explore this thesis. We’ll read contemporary work by neurologists and psychologists (Damasio, Sacks, Gazzaniga, Schacter) as well as their late-nineteenth and early-twentieth century precursors (Freud, James, Brentano, Beard) alongside a wide range of literature that allows us to think about the intersection of race, gender, and sexuality with the universalist claims of various scientific and pseudoscientific accounts of the self. Key literary texts include Shelley, McEwan, Lethem, James, Poe, Woolf, Roth, and Wright.

Distributive: Dist:LIT; WCult:W

ENGL 55.09 - Hope? How Feelings Shape American Culture

Barack Obama defined hope as a culturally transformative feeling that required “audacity.” Yet scholars have questioned hope’s ability to bring about change, leading Lauren Berlant to speak of “Cruel Optimism.” Hope, Optimism, Audacity, Cruelty: how does affect impact American culture? We will develop frames for thinking historically and analytically about feeling’s influence on class, gender and ethnicity. Students will develop final projects that integrate imagination into an analysis of the questions hope raises.

Distributive: Dist:TMV; WCult:W

ENGL 55.11 - Hamilton: The Revolution as a Work of Art

In *Hamilton: The Revolution* (the book of annotated lyrics and account of the musical’s production), Lin-Manuel Miranda and his collaborators create two frames for their work’s significance. One is the historical American Revolution of the 18th century, which the musical rereads via the figure of the orphan-immigrant; the other references their own musical, which they describe as an act of cultural revolution in its engagement with the racial politics of the early millennium. What does it mean to read revolution as a work of art, and *Hamilton* as its artistic reinterpretation? In this course, we will develop frames for thinking analytically about *Hamilton*’s artistic engagement with class, gender and ethnicity in the historic past as well as our own moment.

Distributive: Dist:SOC; WCult:CI

ENGL 55.12 - Dartmouth Fictions

Instructor: Dobson

This is a course about the campus novel and literary representations of Dartmouth College. Dartmouth, as both a setting and object of analysis, has appeared in numerous cultural objects as alumni, students, and those looking in from the outside have reflected on the intellectual and social life of the College. Many major cultural works—

from Ralph Waldo Emerson’s “Literary Ethics” to August Wilson’s *King Hedley II*—were written or first performed at Dartmouth. But the College’s campus and its students have also inspired countless fictional and autobiographical works. Throughout the term, we’ll examine the myriad ways in which Dartmouth has been represented by reading a selection of novels and memoirs set on our campus. We will also read a selection of poetry and examine digital productions depicting Dartmouth and Dartmouth students, including memes and textual forms of social media. Finally, we will visit Rauner’s special collections to examine primary materials, including artifacts and texts from the College’s past, to produce a research paper that locates a text within its historical context.

Distributive: Dist:LIT; WCult:W

ENGL 55.13 - South African Literature in English

Instructor: Orner

This course will examine works by South African men and women of various ethnicities who have chosen to write in English since the publication of Olive Schreiner's *Story of an African Farm* in 1883. This richly diverse literature will be tracked through the cultural and political history of South Africa with primary emphasis on the twentieth and twenty-first centuries before and after the fall of Apartheid. Confrontation between black militancy and white oppression characterizes much writing and social interaction in South Africa before the fall of Apartheid, but complex forms of multi-ethnic coexistence and interchange have also been evident since the first white settlement of the country in 1652. Recent work by J.M. Coetzee and Zakes Mda among others explores the difficult, unmapped terrain of post-Apartheid South Africa. Works by the following writers may be included in the course: Olive Schreiner, Solomon Plaatje, Bessie Head, Nadine Gordimer, Zoe Wicomb, Alan Paton, J.M Coetzee, Njabulo Ndebele, Athol Fugard, Nelson Mandela.

Distributive: Dist:LIT; WCult:CI

ENGL 55.14 - Native American Oral Traditional Literatures

Instructor: Palmer

Native American oral tradition constitutes a rich and complex dimension of the American literary heritage. This course will examine a range of oral genres from several time periods and tribal sources. Oral traditions and the textual sources into which they are anthologized provide valuable insights into the nature of human creativity. They are also full of unique hermeneutical challenges. This course will include some contemporary theoretical approaches to orality and the metaphysics of the voice to unpack some of these questions.

Distributive: LIT
ENGL 55.15 - The Merchant of Venice: The Jew in the Protestant Imagination

This seminar is an interdisciplinary study of Shakespeare's *The Merchant of Venice* that will examine the history of Christianity's attitudes toward Judaism, the fate of Jews within Christian Europe, especially in England prior to the expulsion of the Jews in 1290, and the effect of these histories on the composition of the play, the representations of its main characters, particularly Shylock and Portia, and its reception through the centuries, with attention to its role in modern attitudes toward Jews and toward anti-Semitism. We will approach the material as scholars of history, literature, and religion. We expect to attend closely to the gendered and racialized representations of Jewishness and Christianess in the play and in English culture more generally. The impact of the play will be examined with particular reference to modern German and English literary traditions. We will also examine some major developments in the staging of the play, with particular attention to Yiddish versions, Israeli productions, and Nazi-era German stagings, as well as several film versions. A selection from the major critical literature on the play will be studied.

Cross-Listed as: JWST 070 REL 74.12
Distributive: Dist:LIT; WCult:W

ENGL 55.16 - Prehistoric Worlds: Science Fiction and Geological Time

Ever since natural historians like Charles Lyell and Charles Darwin radically expanded the time scale of Earth’s history, modern writers and filmmakers have looked for new ways to mediate “deep time.” This course is an introduction to their work. During the semester, we discuss the techniques they use to portray the passage of geological time. We also question the political implications of these representations—what they tell us about society in the present. Finally, we consider deep time as an inspiration for new philosophical concepts. The course has three sections: “Deep Time and Early Science Fiction”; “Cold War Countercultures”; and “The Anthropocene.” In addition to essays and exams, we complete a field project about the Harvard Museum of Natural History.

Distributive: Dist:TMV; WCult:W

ENGL 55.17 - Disability and Literature

This course introduces students to an emerging canon of literary autobiography and criticism devoted to the experience of disability. Critical works read in this course will cover such issues as physical access, ableism, neurotypicality, deaf political activism, and intersections of disability and other categories of identity such as race, class, gender, and sexuality. Major authors and texts to be read include Temple Grandin, Oliver Sacks, Thomas Cooser, Simi Linton, Rosemarie Garland Thomson, Bartleby, Of Mice and Men, Autobiography of a Face, and Curious Incident of the Dog in the Night.

Distributive: Dist:LIT; WCult:W

ENGL 55.18 - Research As Picture Books

In this course, students will convert cutting-edge scholarship by a select group of participating Dartmouth researchers into picture books for children, complete with characters and stories (even when the research primarily involves scientific data). Students will learn the basics of picture book composition and design by analyzing classics in relevant sub-genres (there's a bird laboratory at Cornell that puts out a regular series of picture books that will also be useful as models). In collaborative teams and working closely with the professor and their assigned researcher, students will pitch and defend their ideas, produce mock-up picture books, and present other documents simulating the professional experience of seeking publication for their projects.

Distributive: Dist:ART

ENGL 55.19 - Maroons to Marley: Jamaica's Role in Worldwide Revolutions from Slavery to the Present Day

In 1738, a hundred years before legal emancipation came to England’s New World slave colonies, Jamaica’s Maroons forced the colonial power to sign a treaty granting sovereignty to Maroon communities across the Caribbean island. As the first Africans in the New World to achieve this feat, Maroon warriors directly and indirectly influenced abolitionist and revolutionary movements throughout the Americas—including, of course, revolts in Haiti and the United States. These warriors continued to inspire the revolutionary actions of other oppressed and/or enslaved individuals for generations, and indeed, a revolutionary ethos pervades Jamaican culture and artistic production from the colonial period to the present moment. This course traces the impact of “Jamaican” revolutionary figures on other revolutionary figures and events worldwide. Moving chronologically, from colonialism to the present day, the course examines influences such as African/Jamaican Maroon leaders direct impact on other revolutions throughout the Americas; Mary Seacole’s exchanges with and impact on Florence Nightingale during the Crimean War; Marcus Garvey’s impact on the Harlem Renaissance and the Rastafari religion; Claude McKay’s revolutionary impact on vernacular poetics and on the “Red Scare;” Louise Bennett’s mid-twentieth century revolutionary, feminist, vernacular poetics and her impact on female performers in the Americas, Europe, and Africa; Bob Marley and Damian Marley’s impact on politics and revolutionary movements in Liberia and Ghana; and finally, the impact of Staceyann Chin’s outspoken poetics on LGBTQ rights in the Caribbean and in other marginalized African diasporic communities.

Cross-Listed as: AAAS 62.50
ENGL 55.20 - The Case Study: Crime, Medicine, and Modern Society
Instructor: Resvick
What does Sherlock Holmes have in common with Sigmund Freud? What unites binge-worthy Netflix fare with Charles Dickens? The course investigates the case study, which plays a crucial role in criminal, legal, and medical contexts alike. While case studies are certainly familiar from TV series or podcasts, the form has a rich literary history. We will survey works from a range of national traditions, examining the features of the case that enable it to operate in and across multiple genres and fields. Our discussions will center on questions of epistemology and form, as we ask what kind of knowledge cases transmit and how they transmit it. Do they depict exceptional phenomena, or do they seek to delineate the qualities that are representative of a given phenomenon? Who has the authority to tell stories about whom? Why are cases so often relayed in serial form?

ENGL 55.21 - Epidemics: Vortex of Fear and Wisdom
This course will focus on learning difficult lessons of experiential wisdom from global Infectious Disease Epidemics 1982-2020, including through on-the-ground experiences, literature, and documentaries. Students will reflect and write about insights that may apply to their own lives.

Epidemics are characterized by fear. Fighting epidemics requires the courage to act in the face of that vortex of uncertainty and fear, the empathy and compassion to understand and feel motivated to alleviate suffering, the imagination to figure out the possible paths of action, and the cognitive and emotional skills need to actually take action. The experiential wisdom it takes to act well in such fearful and uncertain circumstances is the framework of this course. The Smithsonian Museum Exhibition on Epidemics will be presented.

As the faculty of this course we believe that each generation should help transmit the experiential wisdom to the next generation to help fight the fear linked with all types of epidemics near and far, large and small.

ENGL 55.22 - Socio/Poetics: Sociological Method and Literary Form
This course introduces students to a cultural history of the relationship between Sociology and Literature in America from the early twentieth century to the present. Taking inspiration from recent scholarly approaches to literary interpretation that draw on sociological methods for interpreting texts quantitatively, relationally, and descriptively, we will also examine the ways in which sociology has long been occupied by phenomena often associated with literature: subjectivity, uncertainty, and linguistic form. Beginning with the institutionalization of sociology in the 1920s and 1930s, we will explore aesthetic texts alongside sociological works and other cultural documents. In doing so we will situate ourselves in a historical milieu and reconsider conventional literary categories and lineages such as documentary and docupoetry, the photo-essay, and New Journalism through the lens of their response to and use of sociological methods and tropes.

ENGL 61.01 - Chaucer: Dream Poems and Troilus
Chaucer's Canterbury Tales get all the hype, but his other works are every bit as exciting. From a gorgeously beautiful elegy (Book of the Duchess) to a biting satire (on fake news, no less—the House of Fame) to the engaging-but-problematic romance of Troilus and Criseyde, we will have multiple encounters with Chaucer's voice, his thought, his wit and humor. We will think about the intriguing genres of the Dream Poem and the Romance, both of which Chaucer complicates in interesting ways. We will also hone our research skills and talk about the conception and execution of a major literary paper. Prior knowledge of Middle English is not required.

Prerequisite: Recommended: two completed English courses.

ENGL 61.02 - Sound, Music, Literature in Medieval England
In this course, we will consider various ways of approaching medieval literature as an acoustic event, and embedded in everyday soundscapes. We will introduce ourselves to the theory contemporary sound studies, and its practical and theoretical study in a medieval context. We will explore the connections between music, poetry, and oral performance of literary texts. Readings will range widely from Old English poems and epics to Middle English poems, plays, and romances. Our investigation will culminate in two of Chaucer's shorter poems, in which he specifically (and ironically) investigates the nature of
sound and its social functions. At the same time, we will hone our research and paper-writing skills; each student will plan and execute an individual research project and present it to the class.

Prerequisite: Recommended: two completed English courses.

Distributive: Dist:LIT; WCult:W

ENGL 61.03 - Early Modern Literature and the History of Sexuality
Instructor: Ritger

Throughout the twentieth century and especially since the 1970s, the literature and drama of the English Renaissance has provided a crucial archive for scholars studying the historical formation of sexuality, sex practices, and gender in pre-modern society. Shakespeare's sonnets, for example, with their erotic address to both a "sweet boy" (or "master-mistress of my passion") and the so-called Dark Lady, remain a flashpoint. On the English stage, cross-gender identification and same-gender romance was a constant presence, while in the streets of London, "catamites," "tribades," or acts of " sodomy" were supposed to be completely absent—from the eyes of the law, at least. What can the poetry and plays of William Shakespeare, Amelia Lanyer, Christopher Marlowe, Margaret Cavendish, John Donne, or Katherine Phillips teach us, not only about the historically-distant practices of the past, but about our methods, theories, terms and changing paradigms for studying such topics today? What does it mean to read imaginative literature as an archive within an historically contingent body of knowledge? Students should prepare to engage with significant primary and secondary historical readings as well as the social theories of Michel Foucault, Eve Sedgwick, and others.

Distributive: Dist:LIT; WCult:W

ENGL 61.04 - Madness, Magic, Metamorphosis: Unstable Character in Early Modern Drama

"Fair is foul and foul is fair," chant the witches of Shakespeare's MacBeth. Following their ominous words, this course explores how physical and psychic transformations reflect the uneasy coexistence of religion, myth, science, and the supernatural in Shakespeare's England. We begin with a slow reading of King Lear, in which a monarch's stormy madness destabilizes the natural world. Each week thereafter, we'll explore how playwrights use altered bodies and states of consciousness to reflect competing views of justice, truth, authority, and embodiment. As we test various critical approaches to the idea of literary character, we will weigh how well they account for the figures before us, who are defined by the mystical, the metaliiterary, and the unnatural.

Distributive: Dist:LIT; WCult:W

ENGL 61.05 - The Faerie Queene: Speculative Fiction circa 1590
Instructor: Halasz

This course will read Edmund Spenser's 16th century poem, The Faerie Queene, through the lens of the modern practices of speculative fiction, that is, fiction that explores or created alternative worlds. Despite the title of the poem, the queen never appears. Instead there are knights, ladies, magicians, mythic and fantastic beings, human-animal hybrids and robots (for starters) in a landscape that features a wide range of social relations and conditions. Shakespeare, Milton, James Joyce, Monty Python, Neil Gaiman, and Angela Carter are on the long list of the poem’s keen readers. In addition to The Faerie Queene, we’ll read short essays on speculative fiction and brief extracts from 16th-18th century discussions of poetry as a way of writing and thinking. Spenser’s language is deliberately archaic, but it is not difficult for modern readers. Experience with sixteenth century literature is not necessary.

Distributive: Dist:LIT; WCult:W

ENGL 61.11 - Reel Imaginary: Early American Literature in Film

Walter Benjamin argues that we can only awaken from "that dream we name the past" by passing through it, looking simultaneously at both past and future. We can attempt this by reading historical literature, but in the last few decades, film has become a major mediator of our experiences of the past. This course encourages us to think critically about how films represent our past to us in forms that shape our experience of our present identity and influence the future. To think dialectically, we will read primary source material from 1000 AD to 1757 and see what some of the major American filmmakers do with it and why.

Prerequisite: Recommended: two completed English courses.

Distributive: Dist:LIT; WCult:W

ENGL 62.01 - British Fictions of Revolution

The year 1848 was, for most of Western Europe, a year of revolution. In England, one of the few countries to escape widespread violence, 1848 was a year of rampant publication. The texts published in the UK, ranging from Marx and Engels' The Communist Manifesto to Gothic novels and Pre-Raphaelite poems, do not always seem obviously radical or even similar to one another in theme and mood. Are these texts in fact revolutionary? Are any of the texts politically or socially conservative, or do they represent conservative characters or perspectives? Do they take revolutionary forms or structures? To what extent are the texts participating in the same public sphere and historical moment? In responding to these questions, this...
we will end the class by reading substantial excerpts from Charlotte Brontë, Elizabeth Gaskell, and George Eliot, and works by Jane Austen, Mary Shelley, Emily Brontë, nineteenth century. Women writers of this time were keen on commercial and critical success in England during the For the first time in literary history, women writers found themselves as complex, compelling, and unexpected ways. We will read about sexuality, class, ethnicity, race, and power, as well, in strategies female novelists used to open up hard questions about social identity, and particularly social possibilities in many genres in this period, this course will focus on major works of major writers in this period, including Tolstoy, Tennyson, Browning, and Tennyson) alongside artistic and political manifestos, popular political poetry, visual images, scientific and critical prose, and contemporary literary criticism (feminist, Marxist, psychoanalytic, poststructuralist). Students will work toward a substantial research project (12-15 pages) focused on a topic related to the course and of their choosing.

Prerequisite: Recommended: two completed English courses.

Distributive: Dist:LIT; WCult:W

ENGL 62.02 - The New Emily Dickinson: After the Digital Turn

This colloquium offers an in-depth study of the poetry of Emily Dickinson with a particular focus on how the tools of the digital humanities have renovated our views, including unsettling just what a Dickinson poem is. Since her death in 1886, rival editors have fought over Dickinson’s canon, producing their versions of her poetry. Likewise, biographers have romanticized her life, characterizing her as “The Belle of Amherst,” eccentric, reclusive and even a bit mad. This colloquium will introduce students to the “new” Dickinson that is emerging from the plethora of materialist, feminist, post-modernist, and cultural studies approaches. We will use digital archives to reread and reconsider Dickinson’s work and life. Finally, we will study the year 1862, an immensely productive time for Dickinson and the height of the Civil War, also the focus of an annual daily blog I am preparing. For their final projects, students will examine one week of poetry in this tumultuous year, producing research that will be vetted for inclusion on the blog.

Prerequisite: Recommended: two completed English courses.

Distributive: Dist:LIT; WCult:W

ENGL 62.03 - Nineteenth-Century British Women Writers

For the first time in literary history, women writers found commercial and critical success in England during the nineteenth century. Women writers of this time were keen observers of the social codes that formed—and constrained—their identities. Though women wrote in many genres in this period, this course will focus on major novels of the nineteenth century because of the particular strategies female novelists used to open up hard questions about social identity, and particularly social possibilities for women. Questions about gender clearly implicate sexuality, class, ethnicity, race, and power, as well, in complex, compelling, and unexpected ways. We will read works by Jane Austen, Mary Shelley, Emily Brontë, Charlotte Brontë, Elizabeth Gaskell, and George Eliot, and we will end the class by reading substantial excerpts from the private, unpublished diaries of the women writers who published as “Michael Field.”

Prerequisite: Recommended: Two completed English courses.

Cross-Listed as: WGSS 48.09

Distributive: Dist:LIT; WCult:W

ENGL 62.04 - Trauma and Enjoyment in Early American Literature

Instructor: Godley

Trauma is omnipresent today, but so is confusion about its signs, symptomatology, and long-term effects. Is trauma an event, a process, or a condition of being? Is sex or power more predominant in human relations? Why do we put ourselves in harm’s way despite our better intentions? Are life’s worst experiences always irremediable injustices, or are they potentially transformative? Early American literature might seem an unlikely guide here, but the distinction between violence and pleasurable excitation was crucial to the way American settlers encountered natives, how slavery became a definitive moral issue, and how literary history evolved from cautionary narratives of seduction to intensified engagements with reality. This dual survey course examines classic works of American literature from the first encounter to the Civil War, alongside pivotal works in trauma theory.

Distributive: Dist:LIT; WCult:W

ENGL 62.05 - The Horrors of Survival: American Literatures of Modernity

There is a significant period of modernization in US culture from about 1850-1920—a decade before the Civil War to the aftermath of World War I, encompassing Reconstruction, the Gilded Age, the devastating relocation of indigenous Americans, and the development of film and photography—which coincides with one of the most definitive and transformative passages in American self-identity, yet which is under-studied compared to the antebellum period (late 18th-early 19th century) and the period of “high modernism” (1920s-40s). Perhaps part of the reason is that what counts as modernity in these years is not yet modernism, but a process (always debatable) of “becoming-modern,” as if half the time there is a lingering preoccupation with pre-Civil War modes of life and the other half looks forward to a period of explosive economic growth and cultural change. Notably, this transitional period is when philosophical and scientific theories of survival, evolution, and inheritance of various sorts became predominant, alongside experiences of renewed racial violence, horrific catastrophes, economic turbulence, and political (dis)enfranchisement. By the early twentieth century, the psychiatric language of “trauma” dominated the understanding of subjectivity and the language of survival accordingly expands to include various forms of...
lingering, shock, strangeness, and disturbance that would soon take their place as hallmarks of the aesthetics of modernism. Tracking these currents, this course investigates episodes of survival from the personal (war, sexual assault, grief), the institutional (Jim Crow, Social Darwinism), historical (survivals of the Civil War, slavery) and media-technological (photography and film), in search of a definition of US modernity as a mode of transitional experience.

Distributive: Dist:LIT; WCult:W

ENGL 62.12 - Jane Austen
Instructor: McKee
As novels, and translated into film and television, Jane Austen's fiction has recently achieved extraordinary popularity, much greater than she experienced in her lifetime. In this course, discussions will focus on the times and the culture in which she wrote and on her more recent popularity. Topics will include Austen's reactions against Romanticism; her continuing exploration of the moral and emotional dynamics of domestic life; her concern with the freedom of middle-class women; her use of history; her innovations in fictional narrative; and translations of her fiction into film. We will read Northanger Abbey (written 1797, published 1818), Sense and Sensibility (1811), Pride and Prejudice (1813), Mansfield Park (1814), Emma (1816), and Persuasion, (written 1816, published 1818), and view film versions of Pride and Prejudice, Emma, and Persuasion. Dist: LIT; WCult: W Course Group II

Prerequisite: Recommended: Two completed English courses.

Distributive: Dist:LIT; WCult:W

ENGL 62.16 - Victorian Faces/Facial Politics
In Victorian England, a person’s face was his or her calling card: a clue to social identity, a signifier of inner personality, or a mask, a socially-constructed and performed persona. The period witnessed the expansion of photography, the popularity of pseudo-sciences such as physiognomy and phrenology, and the “scientific” study of race—disciplines that focused on the policing of a material body. At the same time, the Victorian period witnessed the emergence of an alternative vector of realism that rejected an emphasis on the “seen” and expanded the categories of who and what could be represented: women, industrial workers, and people of color. In analyzing these competing fields of realism, this colloquium will read literary texts alongside artistic manifestos, scientific and pseudo-scientific prose, visual images, and contemporary literary criticism (poststructuralist, psychoanalytic, feminist, queer, performance theory, critical race). Possible authors include Mary Elizabeth Braddon, Elizabeth Gaskell, Charlotte Bronte, George Eliot, Amy Levy, and Bram Stoker.

Prerequisite: Recommended: two completed English courses.

Distributive: Dist:LIT; WCult:W

ENGL 62.22 - Atlantic Slavery/Atlantic Freedom
Instructor: Garrison
When does slavery find itself chiasmatically mirrored in freedom? From the recent Hollywood blockbuster 12 Years a Slave (2013) to the streets of Ferguson and Baltimore, the legacies of slavery and racial violence continue to cast their shadow over horizons of emancipationist history even as America commemorates the sesquicentennial of the U.S. Civil War. In this course we will revisit the literatures of slavery and anti-slavery in the Atlantic world from the eighteenth century to the present. Our novels and stories imagine episodes of slavery, slave rebellion, and fugitive flights to freedom across two centuries: from early transatlantic crossings of slaves and servants to the New World; to Tacky’s Revolt and its place in what Vincent Brown has recently called the “Coromantee Archipelago” in eighteenth century slave rebellion; to the spectacular soundings of the Haiti Revolution in the Age of Revolutions; to the messianic prophecies of Nat Turner in the early nineteenth century; to slave rebellions at sea; and finally to fugitive slave fictions in the abolitionist decade leading up to the Civil War.

Prerequisite: Recommended: Two completed English courses.

Cross-Listed as: AAAS 88.11

Distributive: Dist:LIT; WCult:W

ENGL 63.01 - Modern Jewish American Women Writers
Instructor: Zeiger
This course will explore the literature of Jewish American women from the late nineteenth century to the present; topics for discussion will include feminism, sexuality, identity politics, activism, and literary transmission. Among the readings will be poetry, fiction, memoir, and essays by such writers as Lazarus, Antin, Yezierska, Stock, Stein, Olsen, Rukeyser, Paley, Ozick, Rich, Piercy, Levertov, Gluck, Goldstein, Wasserstein, Goodman, Klepfisz, Feinberg, Chemin. Enrollment limited to 20.

Prerequisite: Recommended: two completed English courses.

Distributive: Dist:LIT; WCult:W

ENGL 63.02 - Toni Morrison
Instructor: Moodie
This course is an in-depth study of Toni Morrison’s major fictional works. We will also read critical responses by and about the author. We will examine Morrison’s earliest and arguably most foundational and influential works. Required texts will include, The Bluest Eye, Sula, Song of Solomon, Tar Baby, Beloved, A Mercy, and Conversations
with Toni Morrison. Central to our exploration will be an analysis of Morrison’s observation that “the past affects the present.” Therefore, we will explore the social and historical factors that contribute to Morrison’s artistic constructions. Some of the issues we will examine include, alternative constructions of female community and genealogy, and representations of race, class, nationhood, and identity.

Prerequisite: Recommended: two completed English courses.

Cross-Listed as: AAAS 26

Distributive: Dist:INT or LIT; WCult:CI

ENGL 63.03 - Fictions of Finance: For Love or Money

Love or money? It is difficult to decide which of these forces influences our lives more greatly. While money may not buy happiness, love seldom manages to put food on the table. This course examines literary texts, films, and other kinds of cultural objects in which romance and finance overlap and come into conflict. It examines the ways in which both finance (especially speculation) and literature believe in the reality of fiction. The course broadly considers the social ramifications of the financialization of daily life, drawing on anthropology, sociology, political economy, and cultural studies to thicken our understanding of what it means to live in a world where finance determines so much. Students will have the opportunity to design a project dealing with issues of financial literacy.

Possible readings/viewings include: Theodore Dreiser’s The Financier, Gary Shteyngart’s Super Sad True Love Story, William Gibson’s Peripheral, The Big Short (dir. Adam McKay), The Wolf of Wall Street (dir. Martin Scorsese), and Alissa Quart’s Monetized.

Prerequisite: Recommended: two completed English courses.

Distributive: Dist:LIT; WCult:W

ENGL 63.04 - Arts Against Empire: Fictions of Revolution and Solidarity in the Americas

Instructor: Stuelke

Anticolonial struggle and movements for social justice have always been accompanied by a range of cultural practices, including fiction, art, music, film, murals, theater, graffiti, and theory. This course explores that tradition of cultural activism, considering attempts to narrate revolutionary formation, imagine solidarity, and write decolonial theory. We will begin by examining revolutionary nationalist and anti-imperialist culture in the Americas—ranging from the memoirs of Che Guevara and Malcolm X to Nuyorican and Chicano Movement literature—in order to consider the formation of revolutionary subjects, and how 20th century ideas of revolution were raced and gendered. We will then consider how novelists, artists, photographers, filmmakers, and activists attempted to imagine solidarity with revolutionary movements and suffering others in the Americas, from Central America solidarity photography to performance art in solidarity with Guantanamo Bay prisoners. We will pay special attention to the work of feminist and queer solidarity artists, writers, and performers. Finally, we will examine contemporary activist cultural projects, such as PanAmerican public art road trips and hashtag-activism. Students will have the opportunity to produce a creative or multimedia final project.

Prerequisite: Recommended: two completed English courses.

Cross-Listed as: LACS 30.12

Distributive: Dist:INT or LIT; WCult:W

ENGL 63.05 - Nobel Prize Writers

A study of Nobel Prize writers from various Anglophone countries, this course examines authors' aesthetic innovations alongside their engagement in cultural, socio-political, and national discourses. Although the focus will be on poetry, the course will also explore the relationship between different genres (including essays, plays, and novels) and various socio-historical moments. Authors will include William Faulkner, Nadine Gordimer, Seamus Heaney, Wole Soyinka, Rabindranath Tagore, Derek Walcott, Patrick White, and W.B. Yeats.

Prerequisite: Recommended: two completed English courses.

Distributive: Dist:LIT

ENGL 63.06 - The Undead South: Horror and Haunting in U.S. Southern Literature

Instructor: Benson Taylor

This course explores the many forms of horror and haunting—racial, cultural, historic, economic, political—in the region known as the U.S. South, a national space where the possibilities of regeneration are continually thwarted by the aftershocks of a harrowing past. “Undead” tropes encompass numerous varieties of posthumous horror: the dead rising from graves; mourning and funerary practices; the glorification of lost causes and heroes; the excavation of unsuccessfully repressed crimes and bodies. We will consider both traditional forms of Gothic representation (in works by Poe, O’Connor, Faulkner, etc.) as well as contemporary resurgences in the vampires, zombies, and other necrotic forms of recent literature, television, film, and other media. Along the way, we will seek to identify the disturbing ways that the U.S. South has served—both consensually and coercively—as a kind of purgatorial space for America’s most haunting histories.

Prerequisite: Recommended: two completed English courses
ENGL 63.07 - Cosmopolitanism and the Fictions of Exchange

What forms of exchange are possible in a world fast integrating, but increasingly uneven and unequal? What motivates “give and take” between individuals culturally or geographically distant, or separated by wealth? World fiction that grapples with these questions will provide queues for reflection on the ethics and pragmatics of cosmopolitanism. The readings imagine forms of friendship, dialogue, love, and goodwill which will be assessed against Enlightenment, Post-Enlightenment, and Democratic conceptions of rights, property, and community.

Prerequisite: Recommended: two completed English courses.

Distributive: Dist:INT or LIT; WCult:NW

ENGL 63.08 - Electronic Literature

This course examines the burgeoning field of electronic literature, including electronic prose, poetry, and many non-traditional literary artifacts. We will look at the antecedents of electronic literature, culturally specific subgenres, technical and material underpinnings, and the relationship between electronic literature and other literary forms. Assignments will include close reading, critical examination of e-lit as a genre, and opportunities to author electronic literature.

Prerequisite: Recommended: two completed English courses.

Distributive: LIT

ENGL 63.09 - Queer Literatures of Slavery

Instructor: Rinehart

This junior colloquium asks how and why we might bring the perspectives and methods of queer studies to bear upon the history of slavery—and vice versa. We will examine questions of gender and sexuality, kinship and belonging, desire and the erotic, and history and futurity through readings in fiction, poetry, and drama alongside key works in the history of gender and sexuality, queer theory, and queer of color critique. Students will also develop critical skills and strategies for producing scholarship in literary and cultural studies, culminating in an original research paper.

Cross-Listed as: AAAS 82.10

Distributive: Dist:LIT; WCult:CI

ENGL 63.10 - Contemporary Science Fiction

Instructor: Clark

In this course, students will read a wide selection of speculative fiction written since the 1980s, and mostly in the past decade. These texts imagine the births of artificial minds and bodies and the deaths of natural worlds, voyages through outer space and travels through time. We will think about the relationship between sex, race, gender, technology, and power both within the pages of these books and in the ongoing creation and disputation of science fiction canons. Authors will include Octavia Butler, Ursula Le Guin, NK Jemisin, Jeff VanderMeer, and Ling Ma.

Distributive: Dist:LIT; WCult:W

ENGL 63.11 - Race, Sex, Sensation

This course engages with theories of race, sex, and sensation in critical race and ethnic studies, black and women of color feminism, and postcolonial studies. How does the violence enacted on racialized, sexed, gendered subjects exclude such subjects from the category of the individual, rights-bearing human cemented in Western philosophy? How is this exclusion enacted on the very surface of the skin and distinctly felt on one’s body? Who gets to claim humanity and subjecthood, and who has never been able to make such a claim? The readings in this course give an account of how racialized, sexed, gendered subjects are made to bear histories of enslavement, dispossession, genocide, and colonialism in ways that might not always be visible, but instead are sensed, felt, and embodied. We will work with literature, performance, and art that elucidates the political, social, and aesthetic possibilities found in the nonhuman, animality, objecthood, flesh, viscera, and touch.

Distributive: Dist:LIT; WCult:CI

ENGL 63.28 - Rethinking Frost: Robert Frost in a Declining Landscape

In a famous exchange, long-time “frenemies” Wallace Stevens and Robert Frost traded barbs:

“The trouble with you, Robert, is that you write about – subjects.”

“The trouble with you, Wallace, is that you write about – bric-a-brac.”

Neither man was correct, but their characterizations hit a nerve, honing in on the kinds of superficial attributes that may render a first impression lasting . And while no one reads Stevens for his “bric-a-brac” many readers come to Frost for his subjects, which have been misunderstood and sentimentalized over time. It is important to remember, reading him now, that Frost’s New England was no Transcendental retreat, and no rural paradise; poor, depopulated by western expansion on the one hand, and the industrialization of mill towns on the other, it was a landscape of failed and abandoned farmsteads, old people and misfits left to fend on their own, worn-out fields, harsh climate, intellectually moribund and spiritually enervated. Frost came to this “subject” without illusions or bitterness and it is through this subject that we will begin to rethink
his poetics and ideas. Using the extensive Frost archives in Rauner, students will be encouraged to undertake primary research alongside their reading of poems and criticism. The course will culminate in a substantial research paper or project, individually designed in consultation with the instructor.

Prerequisite: Recommended: two completed English courses.

Distributive: Dist:LIT; WCult:W

ENGL 63.29 - Self, Subject, Photography
Instructor: Brown

Before the oft-reproduced social-media mechanism of the selfie, there existed (and still does) the artistic self-portrait. Utilized in the creative realm to create a representation of the artist as both subject and object, self-portraits can be whimsical, grim, tantalizing, performative, or combative. In this course we will examine gendered constructions of self-portraiture as they exist in poetry, memoir, and photography. Specifically, our task will be to examine the registers of possibility present when women use their bodies and stories to claim authorial space. Our goal during the term will be to think through all of the mechanisms of the self that are deployed in the context of artistic practice. Students will produce their own photographic self-portraits and write an analytical paper on a contemporary writer or visual artist.

Cross-Listed as: AAAS 67.09 WGSS 66.08

Distributive: Dist:ART; WCult:CI

ENGL 64 - Junior Colloquia in Course Group IV

Limited to 20 students, these courses will vary in content. They are intended to introduce students to advanced research and prepare them for their senior seminars and honors theses. Coursework and instruction will build toward a substantial paper of 12-15 pages, of sustained inquiry and with a research component.

Prerequisites: two completed major courses, or permission of the instructor.

ENGL 64.01 - Hysteria, Paranoia, Schizophrenia: The Case Study as Literary Genre
Instructor: Khan

Dora, Schreber, the Wolf Man: Freud’s famous psychoanalytic case studies are organized around his patient’s words and symptoms, and yet they all have the narrative complexity and lurid family drama of the greatest nineteenth-century and early twentieth-century novels. This course explores the psychoanalytic case study as a unique literary genre in its own right, one that falls between the medical case history and the novel proper. We will read Sigmund Freud's case studies through three modes of reading: psychoanalytic feminist criticism; paranoid and repressive reading from queer critique; and, symptomatic reading from Marxist criticism. The readings of the cases will therefore be supplemented by texts in queer and feminist theory, continental philosophy, and literary criticism. Throughout the quarter, we will use the cases to explore questions of racial and sexual difference, the body, trauma, the psyche, and memory.

Prerequisite: Recommended: two completed English courses.

Distributive: Dist:LIT; WCult:W

ENGL 64.02 - Garden Politics: Literature, Theory, Practice
Instructor: Zeiger

What do gardens have to do with sexuality, empire, race, class, environmental degradation, the history of poetry, the social role of religion, and the future of art? In discussion of various literary, critical, theoretical, and eco-critical texts, we will attempt to answer this question over the course of the term. While based in literary readings, the course supplements and contextualizes these with other readings and websites. We will also consider broader issues and discourses connecting humans and the environment. Authors may include Jamaica Kincaid, Olive Senior, T.S. Eliot, Derek Jarman, Francis Hodgson Burnett, Paul Fleischman, Willa Cather, and Kage Baker.

Prerequisite: Recommended: two completed English courses.

Distributive: Dist:LIT; WCult:W

ENGL 64.03 - Deconstruction: An Introduction to the Work of Jacques Derrida

This course is an introduction to the work of Jacques Derrida, an Algerian-French philosopher, whose thought has been important for a number of disciplinary formations, including the study of literature. In the course, we will engage with Derrida’s archive by reading some of the interviews that he gave over the course of his life, from the very early interviews on philosophy, philosophical heritage, and the status of writing in western thought to his late interviews, which focus more on ethics, the political, sexual difference, the animal, and the death penalty. Throughout the course of the term, we will study the method of deconstruction, placing Derrida’s thought within a philosophical and literary archive and exploring the potentiality of deconstruction towards an ethical and political project. Readings will oftentimes be supplemented with filmic texts.

Prerequisite: Recommended: two completed English courses.

Distributive: Dist:TMV; WCult:W
ENGL 64.04 - Jacques Lacan and Psychoanalytic Thought

This course is an introduction to the teachings of Jacques Lacan, a French psychoanalyst who turned to the texts of Sigmund Freud in order to bring back to psychoanalysis the radicality of its intervention. In the course, we will read some of the key texts in Lacan’s Ecrits alongside excerpts from his seminars as well as commentaries on his writings by prominent Lacanians, including but not limited to, Jacques-Alain Miller and Slavoj Žižek. The course is located at the intersection of literature, psychoanalysis, and critical theory and will act both as introduction to psychoanalytic thought as well as its unique development by Lacan. The psychoanalytic texts will be supplemented by reference to filmic texts, including: Psycho (dir. Hitchcock, 1960), Shame (dir. Mcqueen, 2011), and Black Swan (dir. Aronofsky, 2010).

Prerequisite: Recommended: two completed English courses.

Distributive: Dist:TMV; WCult:W

ENGL 64.05 - Cultural Analytics

Instructor: Dobson

This course is an introductory course and assumes no prior knowledge of literary studies, critical approaches, statistics, or data analysis. It provides an overview of emergent quantitative methods and theories used by humanists to study data in text and text as data. As we examine these objects, we'll ask questions about the differences, in terms of methodology and interpretive practices, between the social sciences and the humanities. In developing answers to these questions, we will explore recent quantitative methods alongside traditional methods of humanistic inquiry. The goal of the course is to enable students to evaluate data, methods, and interpretations produced from quantitative research in the humanities and to conduct their own research.

Prerequisite: Recommended: Two completed English courses.

Cross-Listed as: QSS 30.16

Distributive: Dist:QDS

ENGL 64.06 - Animal, Vegetable, Medium: Writing Nonhuman Sentience and Communication

What do animals see, hear, and smell with their different senses? Through what media do they communicate? Do plants have a kind of sentience? Given that we can never get inside the head (or leaf) of another species, can we really know anything about their consciousness? Writers and theorists have been asking these questions for centuries, often in dialogue with the science of animal behavior. This course looks at a contemporary multidisciplinary tradition that attributes sentience and communication to animals, plants, and fungi. Over the course of the term, we address three interlocking problems as they appear in a varied archive of print and visual media 1) the problem of accessing the subjective experience of other species 2) the problem of communicating with other species, and the question in what media it might be possible 3) the problem of communicating with other human beings about 1 and 2, and the question of what media best serve this purpose. We also ask what these aesthetic and theoretical traditions offer us now, during the “Anthropocene” or the current epoch when humans have become a geological force shaping the Earth. We ask whether or not they have the potential to interpret it from a different perspective, whether or not they can inform environmentalist politics, and what their implications might be for social justice. This advanced course in environmental media studies also incorporates readings that reflect on the field’s particular theories and practices.

Prerequisite: Recommended: Two completed English courses.

Distributive: Dist:LIT; WCult:W

ENGL 64.07 - Theory Before "Theory"

Instructor: Edmondson

The twentieth century saw the rise of what has come to be called “literary theory”; but people have been writing theories about literature — about its purpose, its effects, its operations and mechanisms, even its very existence — for as long as other people have been writing literature. Students in this class will study the works of some of the canonical figures in that centuries-old tradition — Plato, Aristotle, St. Augustine, Kant, Schiller, Hegel, Nietzsche — alongside some other figures, such as Matthew Arnold, T. S. Eliot, and Erich Auerbach, who fall just outside the literary-theoretical canon but whose influence on literary studies has nonetheless been profound. Ideally, students will take this class as a complement to English 45: Introduction to Literary Theory rather than as an alternative to it.

Distributive: Dist:LIT; WCult:W

ENGL 64.08 - Matters of Life and Death: A Theory Course

Instructor: Dobson

The universal right to live is one of the basic precepts of modern morality. But everyone knows that this sole declaration guarantees nothing, that too often this principle, and the idea that life is inherently valuable, has been made into an alibi behind which atrocities are committed, such as murderous colonial practices, racially motivated executions, human bondage, cultures of rape, and war profiteering. But hypocrisy or faithlessness aside, is it possible that we have never really understood what we mean when we speak of an entitlement to life, or even the value of life such? If life is valuable, and supremely significant, could it be because we think nonliving matter
is without value? And yet, no living being is entirely independent of the nonliving—we are composed as much of nonliving matter as of thriving communities of microorganisms. Moreover, as subjects of law, institutions, and culture, we regularly invest ourselves in non-vital symbolic systems that will outlive us, like building a future for others or leaving a legacy behind. And just as often, these symbolic forms of life can be used against the living and decide the conditions of what counts as life. In this course, we will rigorously inquire about the hidden processes behind the "mattering" of lives (and deaths) in different contexts. Consulting works of philosophy and theory, as well as a few literary "cases," we will explore topics such as nihilism, the impact of capital on the "worth" of existence, the value of nonwhite lives, the death drive, suicide, the politics of grieving, and the pursuit of death as a way of life.

Distributive: Dist:TMV; WCult:W

ENGL 65.01 - Walking
Instructor: Edmondson

Students in this course will circle around a set of deceptively simple questions, all of them framed by an overarching question: What does it mean to walk? Should walking be regarded as a fundamental human activity or as a literary convention carried over into everyday life? Why has walking long been regarded as a vehicle for thought and discourse: a privileged mechanism of knowledge production? Is there a difference between a country walk and a city walk? What is the relationship between walking and time, walking and place? Why should walking have emerged, in certain works of contemporary literature, as a principled rejection of mechanization, modernity, and the capitalist mode of production? And what does walking mean for those who cannot walk? To address these questions, students will read texts by such practitioners and theorists of walking as Thoreau, Walter Benjamin, W. G. Sebald, Rebecca Solnit, Simon Armitage, Robert MacFarlane, Geoff Nicholson, and others. Students will also use their own walks as opportunities for composing works of critical self-reflection, observation, and world-making.

Prerequisite: Recommended: Two completed English courses.

Distributive: Dist:LIT; WCult:W

ENGL 65.02 - Writing with Algorithms: A Literary Computation Workshop

Since the mid-20th century, writers have programmed computers to generate literary works, mimicking old forms and inventing new ones. This course, both a creative writing workshop and a computational lab, will introduce the basics of creative text processing and generation. Making literature through computational techniques opens up a range of expressive possibilities and encourages us to refine our intuitions about style and form. This activity—at minimum, a collaboration between one human and one machine—also invites us to imagine increasingly diverse and complex ways of dividing the labor of literary production. Throughout the course, we will consider examples of computer-generated poems and fiction as well as literary bots and interfaces. No programming experience is expected, though seasoned programmers are welcome.

Prerequisite: Recommended: Two completed English courses.

Distributive: Dist:TLA

ENGL 65.06 - The Poetry and Rhetoric of Love, from Petrarch to Social Media
Instructor: Zeiger

What we call "love poetry" has generally been a way of expressing much more than the emotional and erotic fascination of one person with another. Often it seems to bypass the love-object altogether, and focuses instead on power relations or poetic achievement. Beginning with early examples, and moving on to contemporary and modern poems, our course will place love poems by men and women in the context of an ongoing poetic tradition, recent feminist criticism and theory, and talk about love and sex in recent popular culture. This last will include: excerpts from recent books about dating and seduction, film, contemporary song lyrics, dating websites, and campus culture.

Prerequisite: Recommended: Two completed English courses.

Cross-Listed as: WGSS 53.05

Distributive: Dist:LIT; WCult:W

Section V - Senior Seminars

Senior Seminars, limited to 12 seniors and juniors, will vary in content. They will focus students on concentrated discussions and on a final research project of 20-25 pages. Prerequisites: four completed major courses or permission of the instructor. Dist: LIT.

ENGL 71.01 - Celtic Fringes: Medieva English Literature in Dialogue with Irish, Welsh, and Breton Traditions

From Arthur and Merlin to prophecy, poetry, and song, the literatures of medieval England drew heavily on the lively, imaginative, and sophisticated traditions of their Celtic neighbors, their musical styles and the particular aesthetic they brought to their poetry and narrative. In this course we will study some pairings of connected Celtic and English/Anglo-Norman texts, as well as contemporary writing about the Celtic connection. The politics of these exchanges are not easy. There were wars and border skirmishes; the Norman and Angevin kings of England
sought to subdue the Celtic kingdoms and extend their political influence by diplomacy, coercion and conquest, creating a dynamic that is in some ways parallel to, but also interestingly different from a modern Colonial/Postcolonial situation. Readings may include early Arthurian material; *Diarmait and Grainne* and the Anglo-French Tristan romances; Geoffrey of Monmouth's *Life of Merlin* and Merlinesque prophecies; the Welsh *Mabinoig*; lais by Marie de France and other writers; the borderland romance "Fulk Fitz Warren"; the anecdotes, satires and short romances of Walter Map; Gerald of Wales's ethnographic descriptions/ travelogues of Wales and Ireland. All non-English texts will be read in translation, although students with some knowledge of French, Latin, or a Celtic language may wish to explore some readings in the original. Enrollment limited to 12.

Prerequisite: Recommended: Four completed English courses.

Distributive: Dist:LIT; WCult:W

**ENGL 71.02 - Ovid in England**

Englingish Ovid was something every advanced schoolboy in the 16th century did: translating passages; composing speeches for characters from the poems; dramatizing and performing (in Latin, in England) Ovidian scenes. In this seminar we'll read Ovid's *Heroides* and Metamorphoses in the sixteenth and early seventeenth century print translations alongside a modern English edition. (Students competent in Latin may use the Loeb as well as or instead of the modern English.) We'll consider the forms, themes, and predicaments Ovid's great mythographic poems offered to the English literary imagination. Some attention will be paid to late 20th century performative and poetic "englishings" of Ovid.

Prerequisite: Recommended: Four completed major courses.

Distributive: Dist:LIT; WCult:W

**ENGL 71.03 - The Faerie Queene**

We'll spend the term reading Spenser's great epic romance, *The Faerie Queene*. It's a wonderful poem, deeply engaged with philosophical, poetic, ethical, and political issues via compelling stories, fantastic settings, and provocative descriptions. Shakespeare, Milton, James Joyce, Monty Python and Neil Gaiman are on the long list of the poem's keen readers. Experience with sixteenth century literature is not required. Spenser's language is deliberately archaic at times, but it is not difficult for modern readers. Discussion, informal writing, short papers (2-3pp), oral presentations, and an open topic essay leading to a final paper.

Prerequisite: Four completed English courses or permission of the instructor.

Distributive: Dist:LIT; WCult:W

**ENGL 71.05 - Romance in Medieval England**

This course explores the diverse and elusive genre we now call “romance,” a capacious term that covers anything from chivalric adventures and love stories to quasi-hagiographic and pseudo-historical narratives, from a variety of historical and theoretical perspectives. Readings may include Middle English and Anglo-Normal romances such as *Tristan*, *Havelock* and *Sir Gawain and the Green Knight*, and selections from later Arthurian narratives.

Prerequisite: Four completed English courses or permission of the instructor.

Distributive: Four completed English courses or permission of the instructor.

**ENGL 71.06 - Milton**

This course is an advanced seminar in the study of John Milton's poetry and prose, undertaken with attention to the context of Milton's life and times and current critical discussion and debate about all of these matters.

Prerequisite: Four completed English courses or permission of the instructor.

Distributive: Dist:LIT; WCult:W

**ENGL 71.13 - Gender and Power in Shakespeare**

The course will begin by defining the varieties of power inscribed in Shakespeare’s plays, and proceed to explore the following questions. Is language gender-inflected? Do men and women speak "different" languages? How do power and gender affect each other? How do women negotiate power among themselves? How do men? How is power exerted and controlled in sexual relationships? How do unspoken social definitions exert their power over the politics of gender? Possible works studied will be drawn from The Rape of Lucrece, A Midsummer Night’s Dream, The Taming of the Shrew, The Merchant of Venice, Much Ado About Nothing, As You Like It, All’s Well That Ends Well, Othello, Macbeth, Troilus and Cressida, Coriolanus, Antony and Cleopatra, and The Winter's Tale.

Prerequisite: Four completed English courses or permission of the instructor.

Distributive: LIT

**ENGL 71.14 - Knights, Camelot, Action!**

Instructor: Edmondson

This course will introduce students to medieval romance, one of the most popular genres of medieval literature and one that gives us some of the best-loved literary characters of all time. We will study the genre of romance, including Arthurian romance and other varieties, from the genre’s inception. We will pay particular attention to the form of story-telling that it popularizes, the concept of love that it systematizes, and the notion of heroism on which it
The end of the nineteenth century saw the emergence of genuinely mass readerships, but it also saw the development of literary forms that pitted themselves against the commercialization and homogenization of literary culture. In this course we will look at so-called decadent writers and artists who imagined heightened forms of aesthetic experience in order to displace the political and sexual norms of their societies. We will also examine the controversies their work evoked and the theories of degeneration, deviance and abnormality that were frequently deployed to explain their excesses. Texts will include Oscar Wilde’s The Picture of Dorian Gray, J.K. Huysmans’s Against Nature, Marie Corelli’s Wormwood, and Bram Stoker’s Dracula.

Prerequisite: Recommended: Four completed major courses.

ENGL 72.06 - Dickens in Context

Instructor: Dever

This class will focus on the work of Charles Dickens in two distinct contexts. First, we will spend the term engaging in an intensive, deliberately slow reading of Dickens’s Bleak House, which was published from March, 1852 to September, 1853, in 20 monthly parts. By spreading our reading of this long, complex novel over the span of the fall term, we will gain access to something like the experience of its first readers, who encountered the text in units of several chapters, separated by time. Second, we will put Dickens and Bleak House in conversation with three other novelists and novels that shared the moment in the marketplace: Elizabeth Gaskell’s Cranford, published serially and edited by Dickens in 1851-52, Charlotte...
Brontë’s *Villette*, published in 1853, and Anthony Trollope’s *Barchester Towers*, published in 1855. Through work in Rauner Library, we will learn about the material history of literary production in the mid-Victorian period, and through engagement with contemporary critical and theoretical texts, we will learn about the implications of the narrative experiments Dickens, Gaskell, Brontë, and Trollope undertook in the 1850s. Though reading for the course will be demanding, keeping up will be rewarded with ample room for lively in-class discussions.

Distributive: Dist:LIT; WCult:W

**ENGL 72.09 - Ecocriticism**

Recent critics have argued that our image of “nature” as static and separate from humans is our chief stumbling block in cultivating ecological thought. In this course, we will read literature from the eighteenth century to track the emergence and environmental legacy of developments such as the Industrial Revolution and the Anthropocene, the geological epoch in which humans became the primary driver of climate change. Topics will include the vogue for georgic poetry, the aesthetics of the sublime, colonial expansion, the rise of natural history, it-narratives and thing theory, and questions of the animal. We will read contemporary theory about ecology and object-oriented ontology in the context of the eighteenth century and twenty-first century environmental concerns.

Prerequisite: Recommended: Four completed major courses.

Distributive: LIT

**ENGL 72.13 - The Brontës**

Instructor: Harner

Who were the Brontës and why have their novels remained so popular? What do their texts tell us about Victorian discourses on childhood, gender, space and psycho-geographies, class discontent, empire and globalization, labor and industry, religion, creativity, and language? What do we gain or lose by studying their biographies: tales of four siblings living in isolation on the Yorkshire moors, publishing pseudonymously, and dying young? In this course, we will look closely at the literary production of the Brontës, beginning with the fantastical tales and poetry they wrote as young adults. Topics will include female labor, evangelicalism, the Victorian Gothic, marriage and women’s legal rights, storytelling and myth, colonialism, feminized and racialized madness, and the physical and psychological contours of domestic and foreign space.

Prerequisite: Recommended: Four completed major courses.

Distributive: Dist:LIT; WCult:W

**ENGL 72.14 - From Riches to Rags: Poverty in American Literature, 1861-1925**

Instructor: Boggs

From accounts about the streets being paved with gold to tales that take characters from rags to riches, success stories form an important part of American literary and national identity. Some eras especially seem to embrace such narratives, such as the “Gilded Age” which owes its name to Mark Twain. Yet the term itself was tongue-in-cheek, and many of the works produced in that “age” are as -- if not more -- concerned with rags than riches. Taking material possessions -- or their absence -- as a lens through which to examine economic and cultural conditions, these texts don’t work from as much as they work towards a definition of what poverty is and what it does – to individual people and whole classes (with gender and race as salient categories). In this class, we will read key literary works, especially in the genres of Realism and Naturalism, alongside theoretical texts to shed new light on the way in which American Literature portrays, critiques, embraces as well as reimagines the material and cultural conditions of Americans’ lives and livelihoods.

Distributive: Dist:LIT; WCult:W

**ENGL 73.01 - In the Image: Photography, Writing, and the Documentary Turn**

Instructor: Sharlet

In 1942, the literary critic Alfred Kazin dismissed the documentary movement of the 1930s as a "sub-literature," a "vast granary of facts" from which poets and fiction writers might extract the raw material of true literature. Just a year before, though, James Agee and Walker Evans - - a journalist and photographer -- had published *Let Us Now Praise Famous Men*, a vast book, indeed, sprawling in its feverish devotion to the experimentation Agee and Evans believed necessary to even come close to telling a true story. Agee and Evans wanted it to be an object as much as a book, a challenge to literary culture; whatever it was, it wasn't "sub" anything. In this course we’ll use the question of just what Agee's and Evan's combination of pictures and words might be as the heart of our exploration of the documentary sphere as encountered through the conjunction of text and image. In the first half of the course, we’ll be guided by critical thinkers as we look at creative works and write our own critical essays; in the second, we’ll be guided by creative work as we attempt our own even while we continue our conversations with more contemporary critical thinkers. Besides Agee and Evans, we’ll be encountering among others, photographers Robert Frank, Sally Mann, Stephen Shore, Helen Levitt, Wendy Ewald, Teju Cole, Jean Mohr, Tanja Hollander, and Roy DeCarava; literary journalists Leslie Jamison, Michael Lesy, John Jeremiah Sullivan, John Berger, and Charles Bowden; critics Susan Sontag, Roland Barthes, John Szarkowski, Jerry Thompson, Susie Linfield, Jeff Alred,
and bell hooks; and poets Claudia Rankine, Marianne Moore, Langston Hughes, Donald Justice, and Kevin Young.

Prerequisite: Recommended: Four completed English courses.

Distributive: Dist:LIT; WCult:W

ENGL 73.02 - Toni Morrison Senior Seminar
Instructor: Moodie

This course is an in-depth study of Toni Morrison’s major fictional works. We will examine Morrison’s earliest and arguably most foundational and influential novels. We will also read critical responses to Morrison’s works. Required texts will include, *The Bluest Eye*, *Sula*, *Song of Solomon*, *Tar Baby*, *Beloved*, *A Mercy*, *Conversations with Toni Morrison*, and selected essays. Central to our exploration will be an analysis of Morrison’s observation that “the past affects the present.” Therefore, we will explore the social and historical factors that contribute to Morrison’s artistic constructions. Some of the issues we will examine include, alternative constructions of female community and genealogy, and representations of race, class, nationhood, and identity.

Prerequisite: Recommended: Four completed major courses.

Distributive: Dist:LIT; WCult:CI

ENGL 73.05 - Global Anglophone Nobel Prize Writers
Instructor: Moodie

A study of Nobel Prize writers from various Anglophone countries, this course examines authors’ aesthetic innovations alongside their engagement in cultural, socio-political, and national discourses. Although the focus will be on poetry, the course will also explore the relationship between different genres (including essays, plays, and novels) and various socio-historical moments. Authors will include William Faulkner, Nadine Gordimer, Seamus Heaney, Wole Soyinka, Rabindranath Tagore, Derek Walcott, Patrick White, and W.B. Yeats.

Prerequisite: Recommended: Four completed major courses.

Distributive: LIT

ENGL 73.07 - Poetry of Elizabeth Bishop
Instructor: Moodie

An orphan, a female poet, a lesbian, a long-term expatriate in Brazil, Elizabeth Bishop is nowhere definitively at home; for a long time, literary criticism had trouble accommodating her as well. Recently, queer, feminist, and postcolonial analyses have provided a new critical context for this elusive poet; we will read widely in this work, while focusing on Bishop's poems, drafts, and letters. We will also consider her relationships with contemporaries like Moore and Lowell.

Prerequisite: Recommended: Four completed major courses.

Distributive: Dist:LIT; WCult:W

ENGL 73.13 - James Joyce

This seminar will be devoted to the study of Joyce's Ulysses. After some discussion of Joyce's Portrait and Dubliners -- both of which students are urged to read before the course begins--we will focus on the text of Joyce's Ulysses, with an emphasis on close reading and an examination of Joyce's experiments in prose and his place in modern literature.

Prerequisite: Recommended: Four completed major courses.

Distributive: Dist:LIT; WCult:W

ENGL 73.19 - Faulkner

Although he never received a college degree and lived most of his life in a small town in one of the most impoverished states in the nation, William Faulkner is now acclaimed throughout the world as one of the greatest modern writers. In this seminar, we will focus on Faulkner's fiction and on its place in the history of modernism. Particular attention will be given to the importance of Southern history and Southern legends, which are inseparable in the fiction from the experiences of individual and family life. We will read *The Sound and the Fury*, *As I Lay Dying*, *Absalom Absalom!*, *Light in August*, *Go Down, Moses*, and *The Hamlet* and study the work of critics who have debated the meanings of Faulkner's art, especially, for recent critics, the importance of race to the stories he tells.

Prerequisite: Recommended: Four completed major courses.

Distributive: Dist:LIT; WCult:W

ENGL 73.28 - How We Live Now: Contemporary Hemispheric Fictions

This course explores contemporary hemispheric fiction and film’s attempts to represent how we live now: to map the economic and cultural changes of the last forty years, including the death of 1960s social movements and the shift to a new form of global capitalism. Throughout the course, we will consider the inter-Americanism of these works, exploring how these authors grapple with parallel and overlapping historical conditions, and attend particularly to questions of form and genre. We will consider how genres like chick lit and detective fiction might solicit readers to think and feel in ways that are in line with national and multinational economic imperatives, but also how authors have attempted to create new forms to describe and challenge contemporary conditions of work, war, debt, and depression. Authors may include
had a hold on his imagination. Above all, we shall read because he could never quite come to grips with all that continues to have a hold on our imagination precisely representation, as a fearless inquirer into the mysteries of art forms, as an influential theorist of figuration and class will read Freud for his enduring value as the inventor, and intriguing about the Freudian text — students in this already crystalizes all that is most troubling, provocative, that question — a question that, in its very persistence, disparaged, devalued, decried. So why read Freud? Using Oedipus Complex, for example) have been discredited, Why read Freud? Many of his most famous ideas (the ENGL 74.01 - Reading Freud

Why read Freud? Many of his most famous ideas (the Oedipus Complex, for example) have been discredited, disparaged, devalued, decried. So why read Freud? Using that question — a question that, in its very persistence, already crystalizes all that is most troubling, provocative, and intriguing about the Freudian text — students in this class will read Freud for his enduring value as the inventor, in psychoanalysis, of one of modernity’s most disturbing art forms, as an influential theorist of figuration and representation, as a fearless inquirer into the mysteries of gender and sexuality, and as a speculative thinker who continues to have a hold on our imagination precisely because he could never quite come to grips with all that had a hold on his imagination. Above all, we shall read Freud for what he has to teach us about the importance of risking failure and embarrassment, of remaining restless and uncertain in respect to one’s own thinking, of finding oneself in over one’s head. The texts we shall use to pursue this line of inquiry may or may not include any of the following: Studies on Hysteria, The Interpretation of Dreams, Three Essays on Sexuality and on Technique, Introductory Lectures on Psychoanalysis, Beyond the Pleasure Principle, Inhibitions, Symptoms and Anxiety, Civilization and Its Discontents, and essays such as “Project for a Scientific Psychology,” “Screen Memories,” “The Uncanny,” “The Moses of Michelangelo,” “On Narcissism,” “Two Principles of Mental Functioning,” “A Child Is Being Beaten,” “The Economic Problem of Masochism,” “Constructions in Analysis,” “Analysis Terminal and Interminable,” and “Humor.”

Prerequisite: Recommended: Four completed English courses.

Distributive: Dist:LIT; WCult:W

ENGL 73.30 - 20th Century Protest Poetry

In light of recent protest movements that target issues of race and gender, the prescient words of numerous artists continue to be evoked and volleyed about in contemporary media outlets. Yet the contexts of many of these utterances are largely ignored. Delving into some of these contexts and engaging many of these artists’ larger oeuvre, this course is a multidisciplinary investigation of major protest poets of the twentieth century. It explores the ways in which poets living in the United States, and particularly members of historically marginalized communities, not only pushed back at the powers-that-be, but continuously saw and articulated themselves as simultaneously a part of and a part from larger “American” society. The course wrestles with the well-known and often contentious topics: race, class, and gender. Starting with turn-of-the-century writers like Claude McKay—whose words have become synonymous with outspoken critiques of World War I and the “Red Scare”—and ending with contemporary writers like Balakian and Chin, the course moves chronologically. Some of the writers it examines include, Peter Balakian, Amiri Baraka, Staceyann Chin, Lucille Clifton, Mayda Del Valle, Karen Garrabrant, Allen Ginsberg, Zbigniew Herbert, Robert Lowell, Juan Felipe Herrera, Langston Hughes, Etheridge Knight, Denise Levertov, Haki Madhubuti, Jill McDonough, Claude McKay, Alice Notley, Emmy Perez, Adrienne Rich, Sylvia Plath, Sonia Sanchez, and Dorothy Tse.

Prerequisite: Recommended: Four completed major courses.

Cross-Listed as: AAAS 91.02

Distributive: Dist:LIT; WCult:CI

ENGL 74.02 - Understanding Biopolitics

Biopolitics, loosely defined as the reciprocal incorporation of politics and life, describes not merely the dominant form that politics takes today but also, arguably, the form that politics has always taken. Healthcare, reproduction, immigration, security, racialization, risk management, emotional wellbeing, property and the common: There is no aspect of embodied existence that has not been affected, if not created (or at least grasped), by biopolitics. Nevertheless, the concept of biopolitics itself, introduced into the critical lexicon by Foucault and still subject to revision and working-through, remains far from settled. Accordingly, students in this seminar will read foundational texts of the burgeoning biopolitical canon — texts by Foucault, Arendt, Agamben, Esposito, Hardt and Negri, to name but a few — as a way of understanding biopolitics not as the basis for a new epistemology but as the term we accord a set of predicaments that emerge at the point where politics and life intercept one another. To facilitate that understanding, students will rely on the texts collected in Biopolitics: A Reader, supplemented by Esposito’s Terms of the Political and Melinda Cooper’s Life as Surplus. For their final paper, students will have the option of writing either an essay assessing the treatment of a biopolitical predicament across a range of texts or a biopolitical case study.

Prerequisite: Recommended: Four completed English courses.

Distributive: Dist:LIT; WCult:CI

ENGL 74.03 - On Cruelty

What is cruelty? How can we understand the relation between cruelty and other forms of violence, such as
analyzing the conceptual intersections of the literary and image theory seeks to understand these entanglements, separate has become routine in digital display. Word-entanglement of symbol systems once thought of as instructional diagrams, and photo essays, and the landscape in the form of advertisements, comics, and words in dialogue with images pervade our textual

Instructor: Chaney

ENGL 74.05 - Word-Image Theory

Instructor: Chaney

Words in dialogue with images pervade our textual landscape in the form of advertisements, comics, instructional diagrams, and photo essays, and the entanglement of symbol systems once thought of as separate has become routine in digital display. Word-image theory seeks to understand these entanglements, analyzing the conceptual intersections of the literary and the visual. In this seminar, students will be invited to re-conceptualize those intersections by becoming familiar with the core arguments of word-image studies, iconology, picture theory, and visual culture studies. Creative authors may include Chris Ware, Claudia Rankine, and W.G. Sebald, and critical authors may include Panofsky, Barthes, Foucault, Mitchell, and Bal.

Prerequisite: Recommended: Four completed major courses.

Distributive: Dist:LIT; WCult:W

ENGL 74.06 - Frantz Fanon: Colonial War and Mental Disorders

Instructor: Khan

This course is an introduction to postcolonial theory through an exploration of the writings of Frantz Fanon, a Martiniquan psychiatrist and anticolonial thinker, who wrote extensively on the political and psychical impact of colonization on both the colonizers and the colonized. In the course, we will read Fanon’s early essays on black subjectivity in Black Skin, White Masks; his more overtly political writings on violence and revolution in Wretched of the Earth; and, his clinical writings on madness, institutionalization, and psychotherapy, collected in the newly translated Alienation and Freedom. Throughout the course of the term, we will pay close attention to questions of racial and sexual difference in Fanon’s work as well as the way his writing remains critical for postcolonial political thought.

Prerequisite: Recommended: Four completed major courses.

Distributive: Dist:LIT; WCult:NW

ENGL 74.11 - High Theory

Instructor: Evens

This seminar for advanced students undertakes a close reading of difficult texts in philosophy and in literary and cultural theory. We will include secondary literature to help contextualize the primary texts under study, but the emphasis is on close reading to develop original and critical approaches to these challenging works. Class will be based largely around group discussion, with lectures and prepared student presentations to help stimulate conversation. Students can help to shape the syllabus by proposing texts they wish to work on together. Representative authors we might read in this class include Deleuze, Derrida, Badiou, Agamben, Heidegger, Virilio, Zizek, Lyotard, and others

Prerequisite: Recommended: Four completed major courses.

Distributive: TMV

ENGL 75.02 - Climate Fiction

Instructor: Garrison
The 21st century drumbeat of climate doomsday has ushered in a new speculative genre of planetary crisis dubbed climate fiction or “cli-fi,” the science fiction of the late Anthropocene. But how is this genre new, and why limit such queries to fiction? How does the specter of species death and global pandemonium have a literary and cultural history as well as a geophysical, earth systems one? This seminar, through historical and contemporary critique, read transversally across an array of media from novels to theory and film, will situate where we are now with literature from the past about the emergence of steam power, land enclosures, energy systems, and Arctic exploration to account for how we might secure the future. Topics include entanglements of anthropogenic processes with other planetary effects in theories of Capitalocene, Plantationocene, and Chthulucene from the conquest of the Americas to the untimely present. Readings include eighteenth century and romantic natural history, bad weather, contemporary “cli-fi,” ecological theory, and at least one film, such as Steven Spielberg’s blockbuster Ready Player One (2018).

Prerequisite: Recommended: Four completed major courses.

Distributive: Dist:LIT; WCult:W

ENGL 75.03 - Beyond the Prison: Premodern Carceral Studies
Instructor: Ritger

What came before the prison, and what could come after? This course will serve as an introduction to some of the methods and concerns of contemporary Critical Prison Studies, as well as a deep dive into the historical rise of carceral institutions in England and the United States, as seen from the perspective of incarcerated writers, and as reimagined in literary texts. Famous examples such as the prison epistles of Oscar Wilde will be set alongside more recent rediscoveries, such as the manuscripts of Austin Reed. Readings from Angela Davis, Michel Foucault, and Nicole Fleetwood (among others) will frame our comparative inquiry; classics such as Robinson Crusoe will be cast in a different light. Recurring topics will include writings from confinement as genre; the importance of print culture inside and outside the prison; the relation between carceral institutions and literary genres such as the convict narrative, epistle, early realist novel, and lyric poem. Throughout we will pay particular attention to how literary writing has been a recurring means for thinking outside the confines of a given political discourse, while we also reconsider the links between confinement and imagination, rehabilitation and subjectivity, art and liberation, then and now.

Distributive: Dist:LIT; WCult:W

Section VI - Creative Writing

Introductory Creative Writing Courses

CRWT 10 - Introduction to Fiction
Instructor: 21F: Craig; 22W: Orner; 22S: O'Malley

An introductory workshop and reading course in fiction, designed to allow students to work in all fictive modes. Each week students will consider different aspects of writing, and the various elements integral to the genre. Seminar-sized classes meet for discussion and include individual conferences.

Distributive: Dist:ART

CRWT 11 - Writing and Reading Creative Nonfiction
Instructor: 21X: Craig; 22W: Sharlet

An introductory workshop and reading course in creative nonfiction—a hybrid genre of journalism, memoir, and fictional and poetic techniques, also known as the art of fact. Each week students will consider different aspects of writing, and the various elements integral to the genre. Seminar-sized classes meet for discussion and include individual conferences.

Distributive: Dist:ART

CRWT 12 - Introduction to Poetry
Instructor: 21F: Francis; 22W: Olzmann

An introductory workshop and reading course in poetry. Each week students will consider different aspects of writing, and the various elements integral to the genre. Seminar-sized classes meet for discussion, and include individual conferences.

Distributive: Dist:ART

Intermediate Creative Writing Courses

CRWT 20 - Intermediate Fiction I
Instructor: O'Malley

Continued work in the writing of fiction. The class proceeds by means of group workshops, individual conferences with the instructor, and reading across the genre. The process of revision is emphasized. Topics and emphases may vary from term to term. Please refer to "How To Apply to CRWT 20, 21, or 22" on the department website and answer all of the questions listed in a cover letter. Students must submit a 5-8 page sample of their writing along with the cover letter by the last day of classes of the term preceding the term in which they wish to enroll. These materials should be submitted electronically to the instructor. (Formerly ENGL 83)

Prerequisite: CRWT 10 (formerly ENGL 80) and permission of the instructor. Please read the "How To Apply To CRWT 20, 21, or 22" document available on the Department of English and Creative Writing website.
Students should submit, to the instructor electronically, a five–eight page writing sample of their fiction. Deadline for equal consideration for admittance is the last day of classes in the term preceding the course. Late applications will be accepted, but held until the add/drop period and reviewed if vacancies occur.

Distributive: Dist:ART

**CRWT 21 - Intermediate Creative Non Fiction I**

Instructor: Sharlet

Continued work in the writing of creative nonfiction, including literary journalism, investigative memoir, the lyric essay, and documentary. The class proceeds by means of group workshops, individual conferences with the instructor, and reading across the genre. The processes of research and revision are emphasized. Topics and emphases may vary from term to term. Please refer to "How To Apply to CRWT 20, 21, or 22" on the department website and answer all of the questions listed in a cover letter. Students must submit a 5-8 page sample of their writing along with the cover letter by the last day of classes of the term preceding the term in which they wish to enroll. These materials should be submitted electronically to the instructor. (Formerly ENGL 84)

This workshop is currently taught as 40 Towns.

Prerequisite: CRWT 11 (formerly ENGL 81) and permission of the instructor. Please read the "How To Apply to CRWT 20, 21, or 22" document available on the Department of English and Creative Writing website. Students should submit, to the instructor electronically, a five–eight page writing sample of their fiction. Deadline for equal consideration for admittance is the last day of classes in the term preceding the course. Late applications will be accepted, but held until the add/drop period and reviewed if vacancies occur.

Distributive: Dist:ART

**Advanced Creative Writing Courses**

**CRWT 60 - Senior Workshop in Creative Writing: Fiction**

Instructor: O'Malley

An advanced workshop for seniors who wish to undertake a manuscript of fiction. Students must submit an 8-12 page writing sample to the instructor by the LAST DAY OF CLASSES of the term preceding the term in which they wish to enroll. These materials should be submitted electronically to the instructor.

Prerequisite: CRWT 20 or permission of the instructor.

Distributive: Dist:ART

**CRWT 61 - Senior Workshop in Creative Writing: Creative Nonfiction**

Instructor: Sharlet

An advanced workshop for seniors who wish to undertake a manuscript of creative nonfiction. Students must submit an 8-12 page writing sample to the instructor by the LAST DAY OF CLASSES of the term preceding the term in which they wish to enroll. These materials should be submitted electronically to the instructor.

Prerequisite: CRWT 21 or permission of the instructor.

Distributive: Dist:ART

**CRWT 62 - Senior Workshop in Creative Writing: Poetry**

Instructor: Francis

An advanced workshop for seniors who wish to undertake a manuscript of poetry. Students must submit an 8-12 page writing sample to the instructor by the LAST DAY OF CLASSES of the term preceding the term in which they wish to enroll. These materials should be submitted electronically to the instructor.

Prerequisite: CRWT 22 or permission of the instructor.

Distributive: Dist:ART
Section VII - Foreign Study Courses

ENGL 90 - English Study Abroad I
Instructor: Schweitzer

Major credit for this course is awarded to students who satisfactorily complete a course of study elected as part of one of the Department’s two Foreign Study Programs (FSPs). On the London FSP, this will be a course of study in literature at Queen Mary University. On the Dublin FSP, this will be a course of study in the English Department at Trinity College Dublin (TCD). Of the three courses at TCD at least one must be in Irish literature. Students are also required to do an independent study project on some aspect of Irish literature or culture, culminating in a long essay; the grade for the independent study is factored into the grade for the Irish literature course. Dist: LIT.

Distributive: Dist:LIT; WCult:W

ENGL 91 - English Study Abroad II
Instructor: Schweitzer

Major credit for this course is awarded to students who satisfactorily complete a course of study elected as part of one of the Department’s two Foreign Study Programs (FSPs). On the London FSP, this will be a course of study in literature at Queen Mary University. On the Dublin FSP, this will be a course of study in the English Department at Trinity College Dublin (TCD). Of the three courses at TCD at least one must be in Irish literature. Students are also required to do an independent study project on some aspect of Irish literature or culture, culminating in a long essay; the grade for the independent study is factored into the grade for the Irish literature course. Dist: LIT.

Distributive: Dist:LIT

ENGL 92 - English Study Abroad III
Instructor: Schweitzer

One college credit (not major or minor credit) for this course is awarded to students who satisfactorily complete a course of study elected as part of one of the Department's two Foreign Study Programs (FSPs). The purpose of English 92, when taken in Glasgow, is to enhance the experience of studying English and Scottish literature in a European, and more specifically British, context. The requirement may be fulfilled by taking a course, approved by the program director, in Scottish literature or culture, British cultural history, Celtic civilization, comparative literature, or the English language. Other courses relevant to the study of English literature (in art history, philosophy or media studies, for instance) may be taken subject to the approval of the English Department's Committee on Departmental Curriculum. ENGL 92 on the Glasgow FSP satisfies no distributive requirement. On the Dublin FSP, this will be a course of study in the English Department at Trinity College Dublin (TCD). Of the three courses at TCD at least one must be in Irish literature. Students are also required to do an independent study project on some aspect of Irish literature or culture, culminating in a long essay; the grade for the independent study is factored into the grade for the Irish literature course. Glasgow

Distributive: LIT

Section VII - Independent Study and Honors

CRWT 89 - Creative Writing Project
Instructor: Varies

A tutorial course to be designed by the student with the assistance of a faculty supervisor. This course is intended for the purpose of producing a manuscript of fiction, creative nonfiction or poetry.

Distributive: Dist:ART

CRWT 98 - Honors Course I
Instructor: To be arranged

Independent study under the direction of a faculty adviser. Honors majors elect this course in the first term in which they are pursuing creative writing honors projects. For more information, see English Honors Program above, and consult the Guide to Honors booklet available in the English Department.

Students are awarded one course credit for successful completion of this course upon completion of CRWT-099. Students register for CRWT-098 and receive a grade of “ON” (ongoing) at the end of the term. Students then register for CRWT-099 the subsequent term to complete the coursework. A final grade will replace the “ON” in CRWT-098 upon completion of CRWT-099.

CRWT 99 - Honors Course II
Instructor: To be arranged

Independent study under the direction of a faculty adviser. Honors majors elect this course in the second term in which they are pursuing creative writing honors projects. For more information, see English Honors Program above, and consult the Guide to Honors booklet available in the English Department.

Students are awarded one course credit for successful completion of this course. Students who have registered for CRWT-098 register for CRWT-099 to complete the coursework. A final grade will replace the “ON” for CRWT-098 upon completion of this course for a total of 2 credits for CRWT-098 and CRWT-099.

ENGL 96 - Reading Course
Instructor: Varies

A tutorial course to be designed by the student with the assistance of a member of the English Department willing to supervise it. This course is available, as an occasional
privilege, to upperclassmen who have demonstrated their ability to do independent work. During the term prior to taking the course, applicants must consult the Department Vice Chair to make arrangements for approval of the project. (Note: ENGL 96 does not normally count towards the English major or minor, though in special circumstances the C.D.C. may approve occasional exceptions to that rule. Students seeking such an exception are asked to petition the C.D.C. before taking ENGL 96. ENGL 96 may not be used to satisfy course group requirements.)

**ENGL 98 - Honors Course I**

**Instructor:** Varies

Independent study under the direction of a faculty adviser. Honors majors elect this course during the first term in which they are pursuing honors projects. For more information, see “English Honors Program,” and consult the “Guide to Honors” booklet in the English and Creative Writing Department.

Students are awarded one course credit for successful completion of this course at the end of the second term of study. Students subsequently register for ENGL 99, and continue with their coursework into a second term. A final grade will replace the “ON” for this course upon completion of ENGL 99.

**ENGL 99 - Honors Course II**

**Instructor:** Varies

Independent study under the direction of a faculty adviser. Honors majors elect this course during the second term in which they are pursuing honors projects. For more information, see “English Honors Program,” and consult the “Guide to Honors” booklet available in the English and Creative Writing Department.

Students are awarded one course credit for successful completion of this course. Students who have registered for ENGL 98 register for this course to continue their coursework. Students do not register for a third term. A final grade will replace the “ON” for ENGL 98 upon completion of this course.

**Environmental Studies Program**

**Chair:** Douglas T. Bolger

Professors D. T. Bolger, A. J. Friedland, R. B. Howarth, C. S. Sneddon, R. A. Virginia, E. J. Wilson; Associate Professors M. E. Cox, N. J. Reo, D. G. Webster; Assistant Professors V. B. Chaudhary, T. W. Y. Ong; Research Assistant Professors L. E. Culler, D. A. Lutz; Adjunct Professor M. B. Burkins; Visiting Professor B. D. Roebuck; Senior Lecturers C. A. Fox, R. T. Jones; Lecturers J. T. Erbaugh, F. E. Krivak-Tetley, S. B. Smith

To view Environmental Studies courses, click here (p. 326).

In the Environmental Studies Program (ENVS) we seek to motivate and prepare students to rise to the challenges and opportunities associated with human-environment interactions. Environmental degradation is an escalating problem from local to global scales. Training students to understand and address these environmental problems is our core mission and is why we believe that environmental studies is an essential component of a modern liberal arts education.

The field of Environmental Studies views the earth, and our place in it, as a set of complex, interacting socio-ecological systems. To understand this complexity, ENVS draws on concepts and methods from the natural sciences, social sciences and humanities, as complementary lenses through which to view these systems. But we also seek to overcome the limitations of any one of these perspectives by applying innovative approaches that integrate the traditional disciplines in new and productive ways.

Research and teaching strengths in the program include environmental governance, ecosystem science, environmental and ecological economics, biodiversity conservation, climate change, and sustainable food systems.

A defining element of environmental studies is active engagement with real-world environmental problems. One contemporary concept we employ to frame this practical engagement is sustainability. The quest for sustainability asks the difficult question, how can humans live well on the planet without compromising the ability of current and future generations to do the same? A number of our courses have a specific focus on “hands-on” engagement with sustainability (ENVS 3: Environment and Society: Towards Sustainability, ENVS 50: Environmental Problem Analysis and the Africa Foreign Study Program).

To meet the needs of our students, we offer a major in Environmental Studies and three minors: Environmental Studies, Environmental Science, and Sustainability. We also offer the Africa Foreign Study Program that travels to South Africa, Lesotho and Namibia where we explore the themes of environmental studies within the particular environment, culture and history of the southern Africa region.

**Requirements for the Major, Modified Major, and Minor**

**The Environmental Studies Major**
Prerequisites (3 courses): (a) Math 3 or Math 10 or the equivalent statistics course; (b) Chemistry 3 or 5 or Physics 3 or Biology 16 or Earth Sciences 1; (c) Economics 1 or Economics 2

Requirements (2 courses): (a) ENVS 2 or the equivalent (It is possible to substitute other course combinations for ENVS 2 on a two-for-one basis. The following may be combined with Biology 16: EARS 1, 6, ENVS 12 or GEOG 3. If BIOL 16 is taken as a partial substitute for ENVS 2, it may not be used as a prerequisite.); (b) ENVS 3 (It is possible to substitute other course combinations for ENVS 3 on a two-for-one basis.)

Core Courses (3 courses): Please choose one from each group
(a) Environmental Science: ENVS 20, ENVS 25 or ENVS 30;
(b) Economy and Environment: ENVS 55 or ENVS 56
(c) Environmental Governance: ENVS 61, ENVS 65 or ENVS 67

Critical Issues in Environmental Studies: ENVS 11; ENVS 12; ENVS 14; ENVS 15; ENVS 17; ENVS 18; ENVS 28.

Elective Focus Courses (3 courses): Three related and relevant non-introductory (i.e., 10 or above) courses, at least one from ENVS.

Culminating Experience: ENVS 50, ENVS 84, ENVS 85, or ENVS 91

The Environmental Studies Honors Program
A candidate for the Honors Program in Environmental Studies must satisfy the minimum College grade requirements and complete Environmental Studies 91 (Thesis Research). Environmental Studies 91 may be taken two times, both for course credit, but can only count once toward the major. The minimum requirement for admission is a grade point average of 3.0 in the major and a 3.0 general College average at the beginning of the senior year or at any other time that an application for admission is made. Those students who satisfactorily complete the Honors Program with a ‘B+’ average or better will earn Honors recognition in their major or, in appropriate cases, High Honors. High Honors will be granted only by vote of the ENVS faculty on the basis of outstanding independent work. An interim evaluation of honors students will be made after one term and continuation recommended for those students whose work demonstrates the capacity for satisfactory (B+) work. Enrollment in Environmental Studies 91 does not imply admissions into the Honors Program nor does completion of a senior thesis require the awarding of Honors in the major.

The Culminating Experience
The culminating experience requirement for the major in Environmental Studies may be met by completing either ENVS 50, ENVS 84, or conducting Honors Research (ENVS 91).

The Environmental Studies Minor
Prerequisites (1): ENVS 2 or equivalent
Requirements (1): ENVS 3 or ENVS 11

Four other related non-introductory Environmental Studies Courses, two of which are normally from ENVS. Courses from outside ENVS may be used with permission of the Chair.

Sustainability Track
This track is an option under the Environmental Studies Minor.

Prerequisites: ENVS 2 or the equivalent. Requirements: ENVS 3; one course on sustainability problem-solving, either ENVS 50, ENGS 44, or another appropriate course with permission; and three other courses (numbered 10 and above) as follows: one course examining specific society-environment interactions, chosen from a number of options; and two courses, each from a number of options within a different elective cluster, either (1) courses addressing how ecosystems and earth systems influence sustainability challenges, or (2) courses addressing governance, social justice, and decision-making in pursuit of sustainability goals, or (3) courses addressing how discourse, ethics and identity shape approaches to sustainability challenges, or (4) courses on creative expression, design, and engineering for communicating and solving sustainability problems.

The Environmental Science Minor
Prerequisites: (a) ENVS 2 or equivalent; (b) CHEM 3 or 5 or PHYS 3 or BIOL 16 or EARS 1
Requirements: (a) ENVS 3 or 11 or 42, (b) ENVS 20 or 25 or 28 or 30

Three other related non-introductory Environmental Studies science courses (numbered 10 and above). One class from outside ENVS may be used if from an approved list or with permission of the Chair.

Another Major Modified with Environmental Studies
Prerequisites: none
Requirements (2): ENVS 2 or 3; ENVS 50

Three additional Environmental Studies non-introductory courses, not including 2, 3, or 7. One of these may be substituted by an appropriate course from another department, with permission from the ENVS Chair.
Africa Foreign Study Program

Prerequisites: There are few formal prerequisites to participate in the ENVS Africa FSP. The program benefits from having diverse perspectives among the student participants, and all majors are welcome to apply. What we do look for is individuals who are prepared to engage in a rigorous field-based educational experience. We do ask that you take one of the following courses in preparation.

- AAAS 11/ANTH 12.23: Intro to African Studies
- AAAS 14/HIST 5.01: Pre-Colonial African History
- AAAS 15/HIST 66: History of Africa since 1800
- AAAS 19/HIST 5.08: Africa and the World
- AAAS 40/WGSS 34.02: Gender Identities and Politics in Africa
- AAAS 42/REL 66/WGSS 44.03: Women, Religion and Social Change in Africa
- AAAS 44/ANTH 36: Anthrospology and Contemporary Africa: Exploring Myths, Engaging Realities
- AAAS 46/HIST 67: History of Modern South Africa
- AAAS 50/ENVS 45/HIST 75: Colonialism, Development, and the Environment in Africa and Asia
- AAAS 51/COLT 51: African Literatures: Masterpieces of Literatures from Africa
- AAAS 54/THEA 23: Topics in African Theater and Performance
- AAAS 83.02/GEOG 80: Food and the African World
- AAAS 87.05/GOVT 42: Politics of Africa
- AAAS 87.09/ANTH 12.14: African Popular Culture
- AAAS 88.02/WGSS 38.02/HIST 6.30: Women & Gender in the African Diaspora
- GEOG 6/INTS 16: Introduction to International Development

ENVS - Environmental Studies Courses

To view Environmental Studies requirements, click here (p. 324).

ENVS 2 - Introduction to Environmental Science
Instructor: Lutz/TBD

ENVS - Environmental Studies Courses
Because of the large overlap in material covered, no student may receive credit for more than one of the following courses: ECON 10, ENVS 10, GOVT 10, LING 010, MATH 10, PSYC 10, QSS 15 or SOCY 10.

Prerequisite: ENVS 2 or ENVS 3 or permission of the instructor

Distributive: Dist:QDS

ENVS 11 - Humans and Nature in America
Instructor: TBD

Using literary texts as the primary guides, this course will explore a variety of relationships between humans and the natural world in North America (primarily the USA) over the last 200 years. The texts—including the Journals of Lewis and Clark, nonfiction by John McPhee and Terry Tempest Williams, and fiction by Toni Morrison and Leslie Marmon Silko—will be supplemented by readings and guest lectures from other academic perspectives and integrated with the students’ own contemplative fieldwork. The goal will be to investigate the complexities inherent in any human’s relationship with the natural world - from individual perceptions to social and cultural constructions; analyze those that seem particularly "American"; then integrate the contemplative fieldwork and academic analyses to develop characteristics of a more sustainable human-nature relationship in America.

Distributive: Dist:LIT; WCult:W

ENVS 12 - Energy and the Environment
Instructor: Wilson

Energy, in a variety of forms, is a fundamental need of all societies. This course explores the scientific concepts and applications to society of the issues regarding energy extraction, conversions and use. It will examine the scientific basis for environmental and social concerns about our present energy mix including global climate change, toxic emissions and wastes from energy combustion, and nuclear proliferation. We will also consider choices that are made in the development and utilization of energy resources and the role of public policy.

Prerequisite: ENVS 2 or permission of the instructor.

Distributive: TAS

ENVS 14 - Sustainable Food Systems
Instructor: Ong

Sustainable food systems demand an answer to the question, what is sustainable? This course will explore the many names and faces of food, asking students to critically evaluate sustainability from scientific, social and political perspectives. The course is organized into three modules: 1) food, 2) energy & ecology and 3) environmental justice. The first module provides an overview to food systems, taking a look various management styles and their environmental consequences. We will pull examples from historical times to the present, from the precursors of the Dust Bowl to concentrated animal feed operations (CAFOs). The second module will provide a scientific understanding of the key energetic and ecological components that contribute to the sustainability of food systems including its contribution to climate change and global deforestation. In the third module we will examine the social injustices of food systems, from its twin roles in obesity and hunger to the development of key social movements striving for a new but old “peasant-way of life”.

Distributive: Dist:INT or SOC

ENVS 15 - Environmental Issues of the Earth's Cold Regions
Instructor: Virginia

This course examines the major physical, ecological and human systems of high latitudes, including the circumpolar northern Arctic regions and the continent of Antarctica. Using an interdisciplinary perspective the course explores the science of polar environmental change and applies this information to understand the connections of the polar regions to global processes and international issues (climate change, biodiversity, indigenous rights).

Prerequisite: ENVS 2 or ENVS 3 or permission of the instructor.

Distributive: TAS

ENVS 15 - Environmental Issues of the Earth's Cold Regions
Instructor: Webster

We've all heard that green jobs will bring the U.S. out of this recession, but can Ben & Jerry’s really save the economy and the planet? This course will cover the principles of green business, critiques of green business, and the role of green business in the global economy. Students will compare theory and practice by evaluating the green credentials of companies ranging from Patagonia to British Petroleum.

Prerequisite: ENVS 2 or equivalent

Distributive: Dist:INT or SOC

ENVS 17 - Marine Policy
Instructor: Webster

People use the oceans for transportation, recreation, food, mineral wealth, waste disposal, military defense, and many other important things. This course explores the most significant human-ocean interactions known today from two perspectives: science and policy. From the scientific literature, students will learn about issues ranging from the physical effects of sea level rise to the biological impacts of pollution to the bioeconomic repercussions of
overfishing. For each of the problems that are revealed by science, we will also critically evaluate relevant policy solutions to understand how institutional design can (or can’t) enhance human interactions with the oceans. This includes insights into the politics surrounding oceans issues in the US and around the world.

Distributive: Dist: SOC

ENVS 18 - Indigenous Environmental Studies
Instructor: Reo

In this course, we examine Indigenous worldviews, environmental values and everyday life through the lens of environmental issues facing Indigenous nations and communities. Our geographic focus is on North America and the Pacific, with limited examples from other places and peoples globally. Through course materials, discussions, and assignments, students gain exposure to varied Indigenous perspectives and Indigenous knowledges expressed and enacted by scholars, Elders, community people, political leaders, and activists. Key concepts in Indigenous environmental studies will be discussed including Indigenous rights and responsibilities, Indigenous environmental stewardship, energy and development, land-language linkages, tribal sovereignty and self-determination, empowerment and resurgence.

Prerequisite: NAS 8 or NAS 10 or NAS 25 or ENVS 11 or ENVS 2 or ENVS 3; or permission of instructor

Cross-Listed as: NAS 018

Distributive: Dist: TMV; W Cult: NW

ENVS 19 - Encountering Forests
Instructor: Reo

What do people care about forests? How do people become knowledgeable about a landscape and how do they use theoretical and place-based, practical knowledge about forests? In this course, we attempt to see forests from different cultural and professional lenses including those of Abenaki resource practitioners and natural resource managers. We look at the ways different types of information and different cultural perspectives influence ecological restoration, conservation and land use decisions. Open to all classes.

Prerequisite: ENVS 2 or BIOL 16, and Math 3 or 10 or equivalent stats course, or permission of the instructor.

Cross-Listed as: Identical to NAS 19

ENVS 20 - Conservation of Biodiversity
Instructor: Bolger

On a global scale we are witnessing an unprecedented decline in what has come to be called Biodiversity. Human population growth and increasing rates of material consumption and technological development have increased the rate and scale at which we impact populations of native animals and plants. One goal of the course will be to address the biological aspects of this issue. What is Biodiversity? How is Biodiversity distributed geographically and taxonomically? What does humankind do to cause animal and plant extinctions? Is there a Biodiversity crisis? What is the current rate of extinction and what is the natural extinction rate? What properties of individual species make them vulnerable to extinction? What are the major threats to Biodiversity? The second objective is to examine the social dimensions of Biodiversity. How do our cultural and political perceptions and institutions contribute to the loss of Biodiversity? What value is Biodiversity to humankind? What is being done to preserve Biodiversity in the realms of science, technology, and policy? These questions will be addressed through lecture material, course readings, and writing assignments.

Prerequisite: ENVS 2 or BIOL 16, or permission of the instructor.

Distributive: TAS

ENVS 25 - Agroecology
Instructor: Ong

This course will introduce the principles of agroecology. Students will learn how classic ecological theories are applied to agricultural settings emphasizing biodiversity, plant-soil and biological control systems through group and independent project work at the Dartmouth Organic Farm. This course is intended to mimic real agroecological research. Thus, students will engage in question and methods development with multiple stakeholders (farm managers, other students and faculty), scientific collaboration, data collection, analysis, presentation, and peer review.

Prerequisite: ENVS 2 or BIOL 16, and Math 3 or 10 or equivalent stats course, or permission of the instructor.

Distributive: Dist: TLA

ENVS 28 - Global Environmental Health
Instructor: Roebuck

This course will focus upon the scientific and public health principles that govern environmental health outcomes at the individual to the global scale. Case studies will be used to illustrate the principles. Some of the issues that will be discussed include lead poisoning, mercury in the food web, the epidemic of tobacco use that is sweeping the world, the global movement of persistent organic pollutants, and natural contaminates in the human supply. These cases will increase in complexity with regards to causative agents and health outcomes. Lastly, trends of environmental diseases coupled with the prevention of these diseases will be emphasized.

Prerequisite: ENVS 2 or BIOL 16 or permission of the instructor.
ENVS 30 - Global Environmental Science
Instructor: Lutz

This course examines human influences on global environmental systems with an emphasis on understanding the major biogeochemical cycles. It investigates how human activities (e.g. deforestation, changes in biodiversity, air pollution, desertification) can disrupt environmental processes and the ability of our global environment to support and sustain life. Important feedbacks between biological and physical processes and the atmosphere are also considered in detail. The course explores how natural and managed ecosystems respond to a changing climate and altered resource availabilities along with prospects for the future. Additionally, it examines international science programs and policies that aim to limit excessive human disruption of the global environment.

Prerequisite: ENVS 2 and a lab science course (EARS 1, BIOL 16, CHEM 5, or PHYS 3) or permission of the instructor

Distributive: SCI

ENVS 39 - Natural Resources, Development, and the Environment
Instructor: TBD

How do countries develop their natural resources and also maintain environmental quality? How are water resources and food security maintained in the face of pressures for economic development? Using a multidisciplinary and comparative approach, this course explores the social, political, and scientific issues behind economic development and environmental preservation. Agricultural practices, resource conservation strategies, and tensions between development and conservation are interrogated. The course examines these issues in the historical, social, and political contexts of developed and developing countries, with an emphasis on the emerging nations of sub-Saharan Africa.

Prerequisite: ENVS 2 or the equivalent, or permission of the instructor.

Distributive: SOC

ENVS 40 - Foreign Study in Environmental Problems I
Instructor: Cox

Natural Resources and Environmental Issues in Southern Africa. This course will examine the natural resource constraints and policy dilemmas faced by developing countries and the impacts of people on the environment. Topics will include land and water use, biodiversity and wildlife management, population and environmental health, agricultural practices and community dynamics, and development economics. These topics will be illustrated through field work at National Parks and safari areas, farming areas, and at community-based development projects.

Distributive: SOC

ENVS 40.01 - Community-Based Natural Resource Management I – Fisheries
Instructor: Cox

In this component of the DSP we will explore the ecological, economic, and culture dimensions of fisheries along the New England coast. New England fisheries have some of the best known wild-caught species, including some that have sustained themselves (lobster), and others that have been greatly depleted (cod). We will take a community-based approach to the study of these systems, trying to understand how local folks are influenced by larger-scale forces as they attempt to use and manage their resources.

Prerequisite: ENVS 80.11 Social Ecological Systems: Theory and Methods, or permission of instructor

Distributive: Dist:SOC

ENVS 42 - Foreign Study in Environmental Problems II
Instructor: Bolger

Social and Political Aspects of Development and Conservation in Southern Africa. This course will examine the historical, social, and political context of the interplay between resource use, economic development and environmental conservation in southern Africa. The impact of colonial and ethnic traditions and international institutions, on strategies for economic development, urban growth, wildlife management, ecotourism, resource conservation (especially water and soil) and land use will be discussed. Issues of gender in agricultural development and environmental protection will be considered.

Distributive: INT

ENVS 42.01 - Community-Based Natural Resource Management II – Forests, Forestry and Carbon
Instructor: Bolger

In this component of the DSP we will explore the ecological, economic, cultural and climate dimensions of forests. Forests are the dominant ecosystem type of northern New England and forestry and the forest products industry are also one of the most important economic sectors in this region. Increasingly, a vital dimension of forest management is forest land use change and its effect on atmospheric CO2. We will investigate these issues through our interactions with people who live and work in the forest, our own field work on forest ecology, and research in the academic literature.
Prerequisite: ENVS 80.11 Social Ecological Systems: Theory and Methods, or permission of instructor

Distributive: Dist:TAS

**ENVS 44 - Environment and Politics in Southeast Asia**
Instructor: Sneddon

Over the past several decades, the people and ecosystems of Southeast Asia have confronted a host of political, economic and cultural processes commonly grouped together under the heading "development". Using an approach grounded in political ecology, this course will explore a diversity of human-environment relationships in Southeast Asia. We will use case studies representing a variety of geographical scales (e.g., local, urban, national, transnational), ecological settings (e.g., mountain, coastal, agro-ecosystem) and societal contexts (Philippines, Thailand, Vietnam, Laos, Cambodia, Burma, Malaysia and Indonesia) to address several cross-cutting themes (e.g., urbanization; hydropolitics and the politics of large dams; ecotourism; and questions of identity and resource conflicts).

Cross-Listed as: Identical to GEOG 44
Distributive: Dist:INT or SOC; WCult:NW

**ENVS 45 - Colonialism, Development, and the Environment in Africa and Asia**
Instructor: Haynes

This course examines the environmental history of Africa and Asia, focusing on the period of European colonialism and its aftermath. Topics include deforestation and desertification under colonial rule; imperialism and conservation; the consequences of environmental change for rural Africans and Asians; irrigation, big dams and transformations in water landscapes; the development of national parks and their impact on wildlife and humans; the environmentalism of the poor; urbanization and pollution; and global climate change in Africa and Asia. Open to all classes.

Cross-Listed as: AAAS 050; HIST 075; ASCL 54.07
Distributive: Dist:INT or SOC; WCult:NW

**ENVS 50 - Environmental Problem Analysis and Policy Formulation**
Instructor: Ong

Students working together in groups will formulate and justify policy measures that they think would be appropriate to deal with a local environmental problem. The purposes of this coordinating course are to (1) give students an opportunity to see how the disciplinary knowledge acquired in their various courses and departmental major programs can be integrated in a synthetic manner; (2) provide a forum for an in-depth evaluation of a significant environmental policy problem; and (3) give students the experience of working as a project team toward the solution of a real-world problem. Considerable field work may be involved, and the final examination will consist of a public presentation and defense of student-generated policy recommendations. Open only to seniors or to other classes with permission of the instructor. Satisfies the Culminating Experience requirement.

Prerequisite: ENVS 11, ENVS 2 or ENVS 3, and at least one upper-level Environmental Studies course, or permission of the instructor. Open only to seniors or to other classes with permission of the instructor. Satisfies the Culminating Experience requirement.

Distributive: Dist:SOC

**ENVS 55 - Ecological Economics**
Instructor: Howarth

This course examines the links between economic and ecological systems with an emphasis on the interplay between values and institutions in environmental problem-solving. Concepts pertaining to welfare economics, common pool resources, ecosystem valuation, and environmental ethics are developed and applied to problems such as fisheries and forest management, biodiversity conservation, and global environmental change. The course emphasizes the relationship between economic growth, ecosystem services, and human flourishing in the definition and pursuit of sustainable development.

Prerequisite: ECON 1 or ECON 2; MATH 3 or the equivalent; ENVS 2 or ENVS 3; or permission of the instructor.

Distributive: SOC

**ENVS 56 - Environmental Economics and Governance**
Instructor: Webster

This course explores how concepts from economics and political science can be integrated and applied to issues of environmental governance. Classroom activities and assignments are designed to foster critical thinking about 1) the tools used in environmental economics and 2) the interplay between economic and political forces in human-environment systems. Students will learn how concepts such as cost-benefit analysis, incentive-based regulation, and interest-based politics are applied to problems ranging from pollution reduction to international environmental negotiations.

Prerequisite: ECON 1 or ECON 2 and MATH 3, or the equivalent, or permission of the instructor.

Distributive: SOC

**ENVS 60 - Environmental Law**
Instructor: Jones
Environmental law aims to protect and enhance the environment, reduce the risk to human health from pollution, and achieve sustainable development of natural resources. The success of environmental law depends upon balancing the three components of sustainability: ecological, economic, and social/cultural. Today, the primary sources of this balancing act are federal, state, and local ordinances and their myriad regulations. However, these statutes and regulations overlay a common, judge-made, law of property that establishes a system of private and public property, a law of contracts that governs transactions, and a tort law that provides remedies for intentional and unintentional harms. In addition, there is a growing body of international environmental law with both similarities and differences to U.S. environmental law. The major objectives of this course are to survey today's major environmental laws, explore their history, determine how well they balance ecological, economic, and social sustainability and, finally, to discuss how to improve environmental law to better deal with biodiversity loss, human population growth, energy needs, and climate change in the future. Enrollment is limited.

Distributive: SOC

**ENVS 61 - Evolutionary Environmental Governance**
Instructor: Cox

What to do about modern environmental challenges? To answer this question, we will apply an evolutionary and diagnostic perspective to a set of case studies, exploring agricultural traditions in Bali, forest management in the Western U.S., intensive control of the Mississippi river, and the collapse of the northern Atlantic Cod fishery. A key goal of the course is train each student to diagnose the challenges involved in different types of environmental problems, and from this derive prescriptions for addressing these problems.

Prerequisite: ENVS 2 or ENVS 3 or permission of instructor

Distributive: Dist:SOC

**ENVS 65 - Global Environmental Politics**
Instructor: Erbaugh

This course will examine the global politics associated with environmental issues such as desertification, wildlife management, biodiversity conservation, oceans and fisheries, shared water resources, and climate change. Specifically, we will engage these topics using theories from international relations and comparative politics. A major goal of the course is to give students a firm understanding of the linkages between the policy preferences of governments and the outcomes of international negotiations regarding the global environment.

Prerequisite: ENVS 2 or ENVS 3 or permission of instructor

Distributive: Dist:INT or SOC

**ENVS 67 - Political Ecology**
Instructor: Sneddon

Political ecology is an approach to human-environment relations that links a broad understanding of biophysical systems (e.g., tropical forests, coastal ecosystems, river basins) to knowledge regarding the political and economic forces that drive ecological change. Drawing on examples from North America, Southeast Asia, Africa and other regions, this course employs a political ecology framework to examine contemporary debates over urbanization, water resources, the role of science in environmental conflicts and the cultural landscape.

Prerequisite: ENVS 3 or GEOG 1 or permission of instructor

Cross-Listed as: GEOG 47.01

Distributive: Dist:INT or SOC

**ENVS 72 - Nature Writers**
Instructor: TBD

This course combines reading, writing and fieldwork to explore the breadth and richness of the Nature Writing genre. It is a literature class that will expose you to a variety of nature writing forms; a field course that will put you in the practical position of a nature writer; and a writing workshop in which you will write literary, nature-related essays and critique classmates' work. You will read works by Henry David Thoreau, Barry Lopez, Annie Dillard, Linda Hogan, Lauret Savoy, and Terry Tempest Williams, among others. You will interact with naturalists and others familiar with the region. And you may be involved in a term-long writing project focused on a local issue. Enrollment is limited, and students interested in the course must apply. Applications will include a writing sample—a 3-page personal narrative based on a nature-related experience; the application forms should be requested from the instructor or the ENVS Program Administrator. Applications are due by the last day of spring term; extensions are possible for students off-campus during the spring. Students will be notified about application decisions on or before the first day of class.

Distributive: Dist:LIT; WCult:W

**ENVS 79 - The Soil Resource**
Instructor: Jackson

Soils are a critical natural resource; feeding our growing population depends fundamentally on soils; in fact, soils provide nutrients to all ecosystems. Agriculture and land management has increased soil erosion around the world, potentially influencing the history and fate of civilizations.
In the modern era, this use is not sustainable; the physical and chemical degradation of soils far outpaces soil production. This course will explore the nature and properties of soils and examine how these processes occur in natural and human-influenced soils, and identify reasonable limits on what can influence the sustainable utilization of soils as a resource. We will begin by developing an understanding of the geologic, biologic, and chemical processes that lead to soil formation and the development of specific soil properties. The second portion of the course will examine the relationship between soils and underlying bedrock and overlying vegetation and the role of soils in ecosystems. The final section of the course will examine the situations in which soils are used to reduce the impact of human activities and the way in which humans can reduce their impact on soils: the importance of soils in septic tanks and leach fields; the use of soils as solid waste landfill caps and liners; the use of soils in the storage of hazardous wastes; and the conservation and management of soils.

Prerequisite: ENVS 2 or one course from EARS 1, EARS 2, EARS 3, EARS 4, EARS 5, EARS 6, EARS 8, EARS 9, or CHEM 5 and an advanced course from the environmental sciences or Earth Sciences; or permission of the instructor.

Cross-Listed as: Identical to EARS 35

Distributive: SLA

ENVS 80.01 - Arctic Environmental Change
Instructor: Culler

This course examines the connections between science and the human dimensions of rapid environmental change. Environmental responses to climate change and resource development will be introduced from a scientific perspective. In addition, we will explore how this science is framed in policy documents such as reports from the Intergovernmental Panel on Climate Change. The course will emphasize the importance of science communication and will culminate with a collaborative project that integrates climate change, resource development, and social issues.

Distributive: TAS

ENVS 80.02 - Writing Our Way Home: The Writing that Sustains Us
Instructor: Staff

This will be an intensive creative writing seminar and workshop in creative nonfiction, focusing on memory as source and landscape as setting. Students will explore the notion of place, not only as a physical construct but as an idea. The work of Helene Cixous, George Orwell, Brenda Ueland, and John Berger will serve as texts. The form of the essay will be discussed through the writings of Joan Didion, David Foster Wallace, Anne Carson, Sherman Alexie, and others. Throughout the quarter, students will immerse themselves in both the art of storytelling and the practice of writing, culminating in "a natural autobiography," a long essay that illuminates their own sense of place.

Distributive: Dist:LIT; WCult:CI

ENVS 80.03 - Regenerative Design of the Built Environment
Instructor: Kawiaka

This class will examine current trends in "regenerative design" of the built environment that includes buildings, infrastructure, and manmade landscapes that interact with the natural environment and its potential to improve our lives and the planet. Regenerative design is a systems-theory based approach to design. "Regenerative" processes restore energy used and materials consumed through a closed loop model where the outputs are equal to the inputs where waste=resources. Through this process, social needs are addressed while diminishing ecological impact, and usable energy, food and additional materials are created instead of waste and the designed system can actually improve the natural environment over time.

ENVS 80.08 - The Practice of Science Policy & Diplomacy
Instructor: Melody Brown Burkins

How can the best, most current, and most credible scientific knowledge more actively inform global debates and policy advancing the Sustainable Development Goals (SDGs), climate change mitigation strategies, international security, global health, poverty alleviation, and peace building? And how can our existing science and policy systems become more inclusive, more equitable, and more informed by the next generation of young leaders? This course introduces students to emerging opportunities for engagement and action at the intersection of science, technology, policy, and diplomacy, by developing the “boundary spanning” skills critical for more science-informed, equitable, and inclusive policy solutions. Coursework will be highly interactive and multidisciplinary, including negotiation simulations, policy brief development, social impact work with local organizations, and seminars discussing current issues with invited leaders in science policy and science diplomacy.

Distributive: Dist:SOC

ENVS 80.10 - Coupled Human-Natural Systems: Theory and Practice
Instructor: Ong

This course is an introduction to coupled human-natural systems, exploring how social, ecological, and environmental systems are linked and feedback to
influence each other. Increasing human demand for Earth’s limited resources has resulted in a plethora of hazards to the natural world; problems which are unlikely to be solved without understanding the links between human and natural systems. Here, we will explore some of the complex, sometimes non-intuitive behavior that results from coupling these systems. The primary objective is to introduce students to the tools and techniques of complex systems science used for researching coupled human-natural systems. In a series of lectures and computer laboratory modules, students will be introduced to significant areas of research in the field and learn how to analyze and leverage basic continuous and discrete time differential models and spatiotemporal statistics to address socio-ecological problems. The course will provide basic coding instruction, as necessary. No prior experience in coding is needed. In a final project, students will work in groups to develop or adapt an existing socio-ecological model, gather and analyze existing data, as well as interpret the implications of their results for human management.

Distributive: Dist:QDS

ENVS 80.11 - Social Ecological Systems: Theory and Methods
Instructor: Krivak-Tetley

The concept of social ecological systems (SES) provides a useful theoretical framework for confronting modern environmental challenges. This course uses the SES model to explore natural resource and conservation challenges across a range of historical, social, and political contexts. Case studies will compare and contrast the Global North and South, with special emphasis on the Upper Valley and sub-Saharan Africa. Through discussions, lectures, field activities and independent projects, students will develop a multidisciplinary skills “toolbox” for SES research.

Distributive: Dist:TAS

ENVS 80.12 - The Green New Deal
Instructor: Cox

The Green New Deal has become a rallying cry, calling for a host of fundamental socio-economic transitions towards a more just post-carbon world. In this class we will study the origins of this movement, specific proposals for how this transition could be accomplished, and a set of concrete cases of transitions that are already being implemented. Students will conduct their own analyses of these transitions and develop novel policy proposals for the green new deal.

Distributive: Dist:SOC

ENVS 80.13 - Just Transitions in Agriculture: Theory and Practice

Since the adoption of the Paris Agreement, nations are taking bold action to respond to climate change. The idea of ‘just transition’ - that justice and equity are integral to a post fossil fuel-based economy - is proliferating amongst NGOs, think tanks, philanthropists, and businesses. This course examines just transitions in agriculture through case studies on regenerative design, socio-ecological justice, and business incentives for soil health. The course emphasizes a critical analysis of these alternatives and culminates in a collaborative research project investigating ‘just transition’ alternatives in one’s local social ecological system.

Distributive: Dist:QDS

ENVS 80.14 - Environment, Media and Communication

This course will focus on developing students’ skills in communicating messages about environmental issues. Students will give structured presentations throughout the term and produce a series of video blog entries, and receive coaching on their presentation techniques in order to improve their public speaking voice. Students will also work on multimedia projects focused on an environmental issue they choose. Potential final products of these projects will include recorded interviews, podcast episodes, professional-style websites, and videographies.

ENVS 83 - Environmental Social Science Research Methods
Instructor: Cox

This course is designed to train students to conduct research in the area of human-environment interactions. Such interactions include humans extracting important renewable and non-renewable natural resources such as fish and forests, as well as producing wastes, such as greenhouse gases, as the result of modern economic activities. Students will learn data collection and analysis techniques and explore primary literature that uses these techniques in order to understand how they are implemented. Building on this process, a primary goal of the course is to have each student fully develop their own research proposal. This course is recommended for students planning to conduct graduate-level research or senior theses related to human-environment interactions.

Prerequisite: ENVS 2 or ENVS 3 and MATH 10 or equivalent, or permission of instructor

Distributive: SOC

ENVS 84 - Seminar on Environmental Issues of Southern Africa
Instructor: Bolger
This seminar will coordinate and supplement the material in courses and field work of the program, using guest speakers and student presentations. Students, working in small sub-groups, will undertake multidisciplinary studies of specific regional environmental issues in southern Africa. These projects will lead to a single major paper produced by the group on an environmental topic selected in consultation with the instructor. The paper will be printed in a volume for use by future students and by interested individuals in the U.S. and in southern Africa. Satisfies the Culminating Experience requirement.

Distributive: WCult: NW

**ENVS 84.01 - Community-Based Natural Resource Management III – Farms, soils and social-ecological transitions**

Instructor: Bolger

Agriculture is an arena in which a number of important social and biophysical transitions are being contested and negotiated. As with forests, agricultural management is increasingly focused on adapting to and mitigating climate change. In a manner similar to forests, farms are seen as an opportunity to sequester carbon, primarily in the soil. In addition to climate considerations, agriculture, particularly small-scale agriculture, is an arena in which new social arrangements among people and between people and their food, are being pioneered. In this course we will visit and learn and compare among a number of parallel models of agriculture including conventional agriculture, organic agriculture, climate smart agriculture and regenerative agriculture, among others. We will investigate through interactions with farmers, field work on farms and research in the literature, the comparative consequences of each of these models for soil health, and social and ecological resilience.

Prerequisite: ENVS 80.11 Social Ecological Systems: Theory and Methods, or permission of instructor

Distributive: Dist:SCI

**ENVS 85 - Land, Love & Kinship: A Seminar on Indigenous Environmental Knowledges**

Instructor: Reo

Taking a global perspective, this course will discuss the roles that Indigenous knowledges play in the contemporary world, paying particular attention to how Indigenous knowledge holders enact, tend, and build their environmental knowledges through active and moral relationships with land, water, plants, animals, and other beings. We will examine how key concepts like kinship and relational accountability have developed within Indigenous studies as ways of understanding the relational, embodied, and spiritual nature of Indigenous environmental knowledge.

Cross-Listed as: NAS 81.04

**ENVS 89 - Soils, Forests and Food**

Instructor: Friedland

This seminar will examine elemental cycling and related biogeochemical processes in terrestrial ecosystems, most notably forests, agricultural and post-agricultural lands in temperate North America. Emphasis will be placed on understanding the role of soils and ecosystems in cycling of the major elements carbon and nitrogen, and the trace elements mercury and lead. The interaction of disturbed and undisturbed land and the global carbon cycle will be a major topic of study throughout the course.

Prerequisite: ENVS 2 plus one additional science class in ENVS plus one related course in Ecology or EARS; or permission of the instructor.

Distributive: Dist:TMV

**ENVS 90 - Independent Study and Research**

Permission is required from the faculty advisor and the program chair.

**ENVS 91 - Thesis Research in Environmental Studies I**

Independent study of an environmental problem or issue under the supervision of a member of our staff. Open only to Environmental Studies majors. Only one term of either ENVS 91 or ENVS 92 can count toward the major. Credit requires completion of a suitable report. See description of the Honors Program in Environmental Studies.

Students are awarded one course credit for successful completion of this course at the end of the third term of study. Students subsequently register for ENVS 92, and continue with their coursework into a third term. Students do not register for a third term. A final grade will replace the “ON” for both this course and ENVS 92 upon completion of ENVS 92 at the end of the third term of coursework.

Prerequisite: Permission is required from the faculty advisor and the program chair.

**ENVS 92 - Thesis Research in Environmental Studies II**

Independent study of an environmental problem or issue under the supervision of a member of our staff. Open only to Environmental Studies majors. Only one term of either ENVS 91 or ENVS 92 can count toward the major. Credit requires completion of a suitable report. See description of the Honors Program in Environmental Studies.

Students are awarded one course credit for successful completion of this course. Students who have registered for ENVS 91 register for this course and continue with their coursework into a third term. Students do not register for a
third term. A final grade will replace the “ON” for both ENVS 91 and this course upon completion of this course at the end of the third term of coursework.

**Ethics Institute**

Director: Sonu S. Bedi


The Ethics Institute was established in 1982 by a group of Dartmouth faculty who were concerned about issues in applied and professional ethics. The Institute exists to foster the study and teaching of ethics, broadly construed, across the Dartmouth community through various public programming, workshops, fellowships, and funding for research and teaching.

Campus services include: the Burt Dorsett and Roger S. Aaron lecture series; an annual moral and political philosophy workshop; an undergraduate Supreme Court workshop; an undergraduate co-curricular law and ethics fellowship; a faculty manuscript review; research grant opportunities for faculty and students; and the Phillips undergraduate essay contest. Please visit our website, http://www.dartmouth.edu/~ethics/, for further details and instructions as well as a full listing of our offerings.

The Ethics Institute’s administrative offices and seminar room are located in Blunt Alumni Center, 20 N. Main Street, Suite 201, Hanover, NH 03755.

**Film and Media Studies**

Chair Mary Flanagan

Professors M. Desjardins, M. Flanagan; Associate Professors J. N. Mack, J. K. Ruoff, M. J. Williams, P. Young, J. D. Wernimont; Assistant Professor I. Kwayana; Visiting Associate Professor W. F. Phillips; Associated Faculty G. Gemünden, D. Washburn, M. White Ndounou, T. Keaton, D. Garcia; Lecturers J. Rapf, J. D. Chamberlain, J. Bell, A. Nash, M. Roberts, S. Mizrahi.

To view Film and Media Studies courses, click here (p. 338).

**Requirements for the Major in Film and Media Studies**

The Film and Media Studies department at Dartmouth College offers a wide range of courses in the theory, history, and criticism of film and television as well as a number of courses in film and video production, digital media, and screenwriting. The major provides a common basis for all students in the theory, history, and criticism of film, television and new media, and at least one course with a production component. Beyond this, the major allows students to shape their own emphasis (for instance, history and criticism, or screenwriting). The major requirements are as follows:

**Two Prerequisites**

1. One introductory course: FILM 1 Introduction to Film: From Script to Screen; or FILM 2 Introduction to Television; or FILM 3 Introduction to Digital Arts and Culture

2. FILM 20 Film History I (Silent to Sound)

**Nine Required Courses**

1. One film history course from the following:
   - FILM 21 Film History II (1930-1960)
   - FILM 22 Film History III (1960-1990)
   - FILM 23 Film History IV (1990-present)

2. One additional film or media history course from among the following:
   - FILM 21 Film History II (1930-1960)
   - FILM 22 Film History III (1960-1990)
   - FILM 23 Film History IV (1990-present)
   - FILM 45 U.S. Television History
   - FILM 42's National Cinema

   Students may also petition to the Chair to count specific offerings of the following topics classes for credit in this requirement:
   - FILM 41's (such as FILM 41.09 History of Animation)
   - FILM 46's (such as FILM 46.01 TV and Histories of Gender)
   - FILM 47's (such as FILM 47.05 History of Documentary)

3. FILM 40 Theories and Methodologies of Film and Media Studies

4. One television studies Course from among the following:
   - FILM 45 U.S. Television History
   - FILM 46's

5. and 6. Two additional studies courses from among the following:
   - FILM 41's Genre
   - FILM 42's National Cinema
   - FILM 43's Film Creator
   - FILM 44's Theory Meets Practice
   - FILM 45 U.S. Television History
• FILM 46's Topics in Television
• FILM 47's Topics in Film
• FILM 48's Topics in Digital Culture and New Technologies
• FILM 50's Topics in Media Theory

7. One production course from among the following:
• FILM 30 Documentary Videomaking
• FILM 31 Filmmaking I: Basic Elements of Film
• FILM 33 Writing for the Screen I
• FILM 35 Animation: Principles and Practice
• FILM 36 Videomaking
• FILM 37 Directing for the Camera
• FILM 51 Game Design Studio

8. and 9. Two courses at an advanced level, one of which must be the Culminating Experience:
• FILM 32 Filmmaking II
• FILM 34 Writing for the Screen II
• FILM 38 Advanced Animation
• FILM 39 Advanced Videomaking
• Any courses between FILM 41's—FILM 48's
• FILM 49's Practicum in Digital Culture and New Technologies
• FILM 50's Topics in Media Theory
• FILM 80 Independent Study
• FILM 93 Major Project
• FILM 95 Honors Project I

**Six Required Courses**

1. One film or media history course from the following:
• FILM 21 Film History II (1930-1960)
• FILM 22 Film History III (1960-1990)
• FILM 23 Film History IV (1990-present)
• FILM 45 U.S. Television History
• FILM 42 National Cinema

Students may also petition to the Chair to count specific offerings of the following topics classes for credit in this requirement:
• FILM 41's (such as FILM 41.09 History of Animation)
• FILM 46's (such as FILM 46.01 TV and Histories of Gender)
• FILM 47's (such as FILM 47.05 History of Documentary)

2. FILM 40 Theories and Methodologies of Film and Media Studies

3. One studies course from among the following:
• FILM 41's Genre
• FILM 42's National Cinema
• FILM 43's Film Creator
• FILM 44's Theory Meets Practice
• FILM 45 U.S. Television History
• FILM 46's Topics in Television
• FILM 47's Topics in Film
• FILM 48's Topics in Digital Culture and New Technologies
• FILM 50's Topics in Media Theory

4. One production course from among the following:
• FILM 30 Documentary Videomaking
• FILM 31 Filmmaking I: Basic Elements of Film
• FILM 33 Writing for the Screen I
• FILM 35 Animation: Principles and Practice
• FILM 36 Videomaking
• FILM 37 Directing for the Camera
• FILM 51 Game Design Studio

5. and 6. Two courses at an advanced level, one of which must be the Culminating Experience:
• FILM 32 Filmmaking II
• FILM 34 Writing for the Screen II

**Modified Major in Film and Media Studies**

Students may modify Film and Media Studies with another related discipline with the permission of the Chair of Film and Media Studies and that of the Chair of the related department. Film and Media Studies can be either the major or the minor part of a modified major.

When Film and Media Studies is the major part of the modified major the requirements are as follows:

**Two Prerequisites**

1. One introductory course: FILM 1 Introduction to Film: From Script to Screen; or FILM 2 Introduction to Television; or FILM 3 Introduction to Digital Arts and Culture
2. FILM 20 Film History 1 (Silent to Sound)
• FILM 38 Advanced Animation
• FILM 39's Advanced Videomaking
• Any courses between FILM 41's—FILM 48's
• FILM 49's Practicum in Digital Culture and New Technologies
• FILM 50's Topics in Media Theory
• FILM 80 Independent Study
• FILM 93 Major Project
• FILM 95 Honors Project I

Modifying another Major with Film and Media Studies

If Film and Media Studies is the minor part of the modified major, the requirements are as follows:

One Prerequisite
1. One introductory course: FILM 1 Introduction to Film: From Script to Screen; or FILM 2 Introduction to Television; or FILM 3 Introduction to Digital Arts and Culture

Four Required Courses
1., 2., 3., and 4. Four film and media courses from any category

Minor in Film and Media Studies

The minor requirements are as follows:

One Prerequisite
1. One introductory course: FILM 1 Introduction to Film: From Script to Screen; or FILM 2 Introduction to Television; or FILM 3 Introduction to Digital Arts and Culture.

Six Required Courses
1. One film history course from among the following:
   • FILM 20 Film History I (Silent to Sound)
   • FILM 21 Film History II (1930-1960)
   • FILM 22 Film History III (1960-1990)
   • FILM 23 Film History IV (1990-present)
2. One television studies course from among the following:
   • FILM 45 U.S. Television History
   • FILM 46's

3. and 4. Two additional studies courses from among the following:
   • FILM 41's Genre
   • FILM 42's National Cinema
   • FILM 43's Film Creator
   • FILM 44's Theory Meets Practice
   • FILM 45 U.S. Television History
   • FILM 46's Topics in Television
   • FILM 47's Topics in Film
   • FILM 48's Topics in Digital Culture and New Technologies
   • FILM 50's Topics in Media Theory

5. One production course among the following:
   • FILM 30 Documentary Videomaking
   • FILM 31 Filmmaking I: Basic Elements of Film
   • FILM 33 Writing for the Screen I
   • FILM 35 Animation: Principles and Practice
   • FILM 36's Videomaking
   • FILM 37 Directing for the Camera
   • FILM 51 Game Design Studio
   • FILM 52 Game Design Studio
   • FILM 53 Game Design Studio
   • FILM 54 Game Design Studio
   • FILM 55 Game Design Studio
   • FILM 56 Game Design Studio
   • FILM 57 Game Design Studio
   • FILM 58 Game Design Studio

6. One other production, screenwriting, or studies course (any additional course from FILM 20 and above) in line with the area of major interest.

Culminating Experience

The Culminating Experience requirement is designed to offer each student an opportunity to fulfill an enhanced and focused project related directly to their emphasis within the major. It is required of both Majors and Modified Majors. This course will be selected and declared by each individual student, but must meet department requirements and schedules. Students will work with faculty to determine the optimal design for the Culminating Experience course.

Students may propose one of the following options to count as the Culminating Experience:

• FILM 93 Major Project, a two-term commitment that can be in studies or production;
• FILM 95 and FILM 96 Honors Project I and II, a more ambitious and high caliber two-term commitment which requires that students have completed at least five major courses and have a 3.4 average in the major and 3.0 or higher College average;
• Enroll in an advanced class already being offered by the department, in which the student will do extra work for the culminating experience as approved by the professor. The class cannot fulfill another requirement for the major. This is a one-term culminating project.

Requirements

• All Majors and Modified Majors are required to take FILM 40 before they propose or enroll in a culminating experience course. (FILM 40 should be taken in the Sophomore year. It may be approved for the Junior year, if absolutely necessary, in consultation with the Chair).
• Students are also expected to have completed FILM 1, or FILM 2, or FILM 3, and FILM 20 prior to their Culminating Experience or to be enrolled in those courses in their senior fall.

Deadlines and Proposals

• All Majors and Modified Majors must identify and consult a possible advisor by May 1st of their Junior year.
• Students can find the Culminating Experience Proposal Cover Sheet on the department's website, under Undergraduate/Culminating Experience.
• Each proposal must be worked out in consultation with a faculty advisor and the cover sheet must be signed by the advisor.
• The proposal must be emailed to the Chair and copied to the department administrator. Proposals for summer or fall terms are due by May 15th. Proposals for winter or spring terms are due by October 15th.

Important Reminders

• Production projects will be assessed in relation to the probability of their completion and to the rest of the production curriculum. Regularly scheduled courses will have priority regarding equipment demands.
• Students may not be enrolled in more than one production course per term, including independent study courses.
• Each faculty member is only available during select terms of each academic year. Projects related to a specific faculty member must be arranged in conjunction with their teaching schedule.
• Students enrolled in Culminating Experience courses will complete this requirement at a celebratory dinner, to be held at least once per academic year, typically in the Spring term. Each student will make a brief presentation of their Culminating Experience project.

Honors Program

Students who have completed at least five major courses and who have an average in the major of 3.4 or higher (and a College average of 3.0 or higher) are eligible to apply for the Honors Program.

Students wishing to do a production project must submit a proposal to the Department in the term before the project is to begin. Honors projects that do not include production must be approved by the advisor and the Chair. If this is a Culminating Experience project, the rules for culminating proposals apply. Students with modified as well as standard majors may apply. The member(s) of the Department who will supervise the project will be confirmed at the time the proposal is approved. An Honors project usually extends through two terms and receives two major credits. If the finished project does not achieve a grade of 3.3 or higher, the FILM 95 Honors status will revert to FILM 80 (Independent Study) or FILM 93 (Major Project). For additional information, students should consult the Department Chair.

Transfer Credit

Permission of the Chair and a detailed description of the course will obtain provisional approval for transfer credit. Final approval will be granted on the basis of the Chair’s review of the syllabus and evidence of the student’s work in the course for which transfer credit has been requested. Three courses taken at other institutions may be substituted in fulfillment of the major requirements, provided that the program as a whole is consistent with the intent of the major. Of the three transferred courses, no more than two may be in film theory, history, and criticism, and no more than two may be in production.

FILM - Film and Media Studies Courses

To view Film and Media Studies requirements, click here (p. 335).

FILM 1 - Introduction to Film: From Script to Screen
Instructor: J. Mack; M. Williams
This course examines all the processes which go into the creation of a film, from its inception as a treatment and screenplay to its distribution as a film. Experts (writers, directors, actors, cinematographers, and distributors) may
talk on various areas of expertise. The course will offer an in-depth analysis of different kinds of films and the key technical and critical concepts used in understanding them. Open to all classes.

Distributive: Dist:ART; WCult:W

**FILM 3 - Introduction to Digital Arts and Culture**
Instructor: J. Bell

Digital technology is a key component of culture. Looking at popular media, science fiction, computer games, and artists' projects, students will learn important approaches to digital culture including: the history of the computer as a medium; the conceptual history of interactivity; the development of film, design, animation, and hypermedia; the history of artificial reality; and how visions of the future may change our sense of identity and what constitutes our physical bodies.

Distributive: WCult:W

**FILM 7 - First-Year Seminars in Film and Media Studies**

**FILM 20 - Film History I (Silent to Sound)**
Instructor: M. Williams; J. Rapf

Detailed history of film from its origins to early sound films. Among the major topics to be addressed are: pre-cinematic devices and early cinema; the rise of the feature film; the tradition of silent comedy; the rise of the studio and star systems; European movements and their influence; the coming of sound. Prerequisite to the major in Film and Media Studies. Open to all classes.

Distributive: Dist:ART; WCult:W

**FILM 21 - Film History II (1930-60)**
Instructor: M. Williams

A detailed history of film beginning with the golden age of the U.S. studio system and its major genres. Among the topics and films considered will be the rise of sound film; Hollywood in the 30s; the impact of World War II; neo-realism; film noir; the blacklist; the impact of television and the decline of the studio system; Japanese cinema; the emergence of European auteurs; beginnings of the French New Wave. Open to all classes.

Distributive: Dist:INT or ART; WCult:W

**FILM 22 - Film History III (1960 to 1990)**
Instructor: M. Williams

A detailed history of film beginning with the French New Wave and its impact on American and international cinema. Among the topics and films to be considered will be the interrogation of genres in this period; the rise of alternative models of production; independent and radical film in the United States, Europe, and the Third World; new national cinemas (Eastern Europe in the 60's, Australian and New German film in the 70's, and Soviet, Chinese, and British film in the 80's). Open to all classes.

Distributive: Dist:INT or ART; WCult:W

**FILM 23 - Film History IV (1990-present)**
Instructor: J. Ruoff

This class surveys a variety of national cinemas and their artistic, social, political, and industrial contexts from the period of 1990 to the present. Focus will be on the mutual influences among cinemas during this period, international co-productions, and the ways in which specific national cinema contexts interface with globalized economies and distribution in post-colonial political environments. Some attention will be given to post-French New Wave art film movements, such as Denmark's Dogme group; to the cross-over of East Asian cinemas, such as Hong Kong cinema, to the west; to East European and German cinema since the break-up of the Soviet Union; and to the appeal of Indian cinema to diasporic communities in North America.

Distributive: Dist:INT or ART; WCult:W

**FILM 30 - Documentary Videomaking**
Instructor: J. Ruoff

This documentary workshop will explore in depth the rich world of nonfiction film and video production. Working in groups, students will tackle a variety of technological, aesthetic, and ethical issues intrinsic to the medium. Each group will produce one 10-minute non-fiction film. The class will utilize standard professional production models, which require intense collaborative teamwork and the distribution of tasks and responsibilities. It will culminate in a screening in Loew Auditorium in the Black Family Visual Arts Center. Open to all classes.

Distributive: Dist:ART

**FILM 31 - Filmmaking I: Basic Elements of Film**
Instructor: I. Kwayana; S. Mizrahi

An introduction to the theory and technique of filmmaking combining comprehensive analysis of significant works in various film styles with practical exercises in production. The course aims to provide a basic understanding of the film-making process from script to screen. Students will work in 16mm and portable video for experience in scriptwriting, directing, cinematography, acting, and editing. Readings will include introductory film history, film theory and criticism, screenplays, and essays on new aesthetics in film and video. Limit 12

Distributive: Dist:ART

**FILM 32 - Filmmaking II**
A workshop course in film production, with students, working alone or in collaboration, required to complete a project for showing at the end of the term. Weekly class
meetings will include analysis of film classics and work in progress, as well as critical discussions with visiting professionals. Limit 12

Distributive: Dist:ART

**FILM 33 - Writing for the Screen I**

Instructor: W. Phillips

An analysis of the creative writing process as related to film and other media. A variety of styles will be explored and the potential of specific content for a visual medium will be examined. Each student will be expected to complete a script for a work of at least twenty minutes as a term project. Permission will be granted by the instructor on the basis of material submitted before the end of fall term.

Distributive: Dist:ART

**FILM 34 - Writing for the Screen II**

Instructor: W. Phillips

A continuation of FILM 33 in which the student is expected to complete a full-length screenplay begun in that course. Continued work on the methods of writing, particularly on character development and plot rhythms. Permission is granted by the instructor and if you have taken Film Studies 33.

Distributive: Dist:ART

**FILM 35 - Animation: Principles and Practice**

This studio course will introduce the expansive possibilities of the animated film through a series of exercises in drawn, cut-out, object and digital animation techniques as well as an extended final project that will screen publicly. Class screenings, critiques, and visiting artist presentations will supplement in-class demonstrations. Students should expect to devote serious time to the coursework (up to 20 hours per week). Permission of the instructor is required-granted first day of course.

Distributive: Dist:ART

**FILM 36.01 - Experimental Videomaking (Autobiography)**

This course covers the basics of developing a personal video from idea through realization, while emphasizing ideas outside traditional narrative or documentary forms. Students are encouraged to develop their own forms of aesthetic expression. Students show and critique their work in class in preparation for a final project and public screening.

Distributive: Dist:ART

**FILM 36.03 - TV Production**

In this introductory course, students will learn hands-on the fundamental aspects of television production. Studying camera, sound, editing, writing, and producing techniques, students will engage in critical discussion of these techniques and will develop technical production abilities. Students will explore the culture of the media professional through a series of group assignments which stress productive collaboration, objective criticism and analysis, and professional ethics. Students will use their knowledge and skills to create several short television productions both inside and outside of the studio, culminating in a publicly presented group project. Dist: Art.

**FILM 37 - Directing for the Camera**

Directing for the Camera investigates the directorial process of translating the written script to the screen. Students analyze, rehearse, shoot and edit narrative scenes from existing or original screenplays. The exercises are critiqued and comparisons are then made between the existing works and the exercises. Students work in crews rotating between the roles of director, camera, and sound. Special attention is also given to lighting, cinematography, and audio recording.

Limit 12

Distributive: Dist:ART

**FILM 39 - Advanced Videomaking: Group Documentary**

Distributive: Dist:ART

**FILM 39.01 - Advanced Videomaking: Documentary and Experimental**

A workshop course in advanced digital videomaking, with students, working in pairs or groups, required to complete a short (10-minute or less) broadcast-quality documentary or experimental video for screening at the end of the term. Class meetings will focus on conceptualizing, preparing, and completing the various stages of pre-production, production, and post-production, with extensive in–class critiques.

Prerequisite: Film Studies 30, 31, 36, or significant experience shooting and editing digital video. Permission granted by the professor after the first day of class.

Prerequisite: FS 30, or FS 31, or FS 32, or FS 36, or FS 37, or FS 44.04, or FS 44.07, or FS 48.02, or FS 51, or previous digital video experience. Instructor permission required.

Distributive: Dist:ART

**FILM 40 - Theories and Methodologies of Film and Media Studies**

Instructor: P. Young; M. Williams
This course is designed to introduce film and media studies majors to some of the field's major scholarly methodologies and their theoretical value in explaining how texts, industries, creative artists, and audiences participate in the meaning-making processes. Students will read scholarship and participate in projects that illuminate how meaning is created and negotiated at the levels of industrial production, artistic creation of texts, and audience knowledge and engagement. The screenings, readings, and assignments will ask the student to think about the relations among his/her own position as a scholar, as an audience member, and as a creative artist. This knowledge provides a foundation for critical thinking skills necessary for the student's success in the major. The course is designed for students who have had some introductory exposure to the principles of film and/or television aesthetics and production techniques, but before they have completed their upper division major requirements. **All Film majors and Film modified majors should take this course no later than their junior year.**

**Distributive:** Dist:ART

**FILM 41.01 - Infernal Affairs: Police on Film**
An examination of the concept and use of genre with focus on a particular genre. How are the genres determined and how useful structurally and historically is genre as a concept of classification? What constitutes a genre? What is the relationship between periods and genres? Between genre and the Hollywood film? This course will consider genre as both an aesthetic concept and an economic one, producing stabilization and variation in product. The roles of repetition and variation, stability and change. Genres may include the western, the crime movie, the women's film, the musical, family melodrama, the film noir or other genre-related topics such as film and literature. May be repeated for credit with a different topic.

**Distributive:** Dist:LIT; WCult:W

**FILM 41.02 - Shades of Noir: Film, Fiction, Politics**
Instructor: G. Gemunden

“Film Noir” evokes memories of stylish, cynical, black-and-white movies from the 1940s and 1950s—melodramas about private eyes, femmes fatales, criminal gangs, and lovers on the run. In this course, we will examine noir in relation to its many contexts: the hard-boiled fiction of Chandler and Hammett; the experience of dislocation and alienation that reflect the exile status of many central-European professionals who worked in the US film industry in the 1940s; and Hollywood blacklisting and censorship during the anti-Communist witch hunt. The course will also trace the pervasive presence of noir and its continuing appeal for artists and audiences throughout the world. Because of its artistic and political complexity, noir is a key term for the study of US postwar cultural history: noir narratives revolve around questions of racial and national identity, around the postwar crisis of masculinity, and the convergence of modernism and mass culture.

**Cross-Listed as:** COLT 62.02

**Distributive:** Dist:INT or ART; WCult:W

**FILM 41.04 - Ethnographic Film**
Instructor: L. Ogden

Ethnographic film crosses the boundaries of academic anthropology and popular media. This course will address the construction of meaning in ethnographic films in relation to the parallel concerns of anthropology. We will consider approaches to film style, the relation of visual media to ethnographic representation, and the challenges visual forms poses to written ethnographies. The class will appeal to anthropology and film students as well as students interested in the politics of cross-cultural representation.

**Cross-Listed as:** ANTH 12.01

**Distributive:** Dist:INT or SOC; WCult:NW

**FILM 41.06 - Bond and Beyond**
This course will focus on the way changing definitions of Britishness are worked through in the espionage genre as seen in British film (James Bond, The Spy who Came in From the Cold) and television (The Avengers, The Prisoner) in the 1960s. Some of the topics to be discussed include the evolution of 1960s British film from the "kitchen sink" dramas of the early 60s to the Pop-stylishness of Swinging London; the relationship between film and novel, and between discrete texts and on-going series; the impact of Hollywood on British production and the lure of the American market.

**Distributive:** Dist:ART

**FILM 41.07 - Cinema and the Graphic Novel**
Instructor: P. Young

This course will use historical case studies to examine formal, thematic, and stylistic convergences between cinema and comics. We will analyze a variety of graphic narratives that demonstrate the interdependence of the two forms throughout their histories, particularly in matters of framing, editing, lighting effects, and narrative forms. **NOTE:** I assign drawing homework each week; no prior drawing experience is required.

**Distributive:** Dist:ART; WCult:W

**FILM 41.08 - The Cinematic City**
Instructor: P. Young

This course tracks a quintessentially modern character type--the flâneur/flâneuse--as s/he navigates the cinematic metropolis. Films ranging from early actualities to science fiction, gangster films, musical comedy, and *film noir* will...
present the flâneur as a compromised figure who walks a fine line between resistance to the city’s rhythms and complicity with its reorganization of subjectivity, affect, collective life, and the senses.

Distributive: Dist:ART; WCult:W

**FILM 41.09 - History of Animation**

Instructor: J. Mack

This course is an introduction to the history and development of the field of animation. We will explore this subject from various perspectives: by chronology, from its prehistory before the invention of film to the present day; by form, including, method and medium; by culture, comparing the US to Japan, Russia, Europe and others; by subject; and by personality, concentrating on the figures who have shaped the art form and continue to influence it through their example. Students are expected to bring an enthusiastic interest in the medium, and to devote serious effort to reading about, viewing, researching and discussing animation and the artists who have created it.

Distributive: Dist:ART

**FILM 41.10 - Global Gothic**

Instructor: D. Washburn

The Aesthetics of Horror in Japanese and Western Cinema The Japanese tradition of stories about ghosts, spirit possession, demonic visitations and strange psychological phenomena has a rich, complex history that has intersected with Western traditions in productive ways. Beginning with a consideration of theories of the uncanny, the gothic, and the fantastic, this course will explore the techniques filmmakers in Japan and the West have used to create an aesthetics of horror. We will also examine the ideological significance of tales of the weird and supernatural – what they tell us about moral values or about personal and social conceptions of identity.

Distributive: Dist:ART; WCult:W

**FILM 41.11 - Genre: History of Visual Music**

Instructor: J. Mack

This course introduces the history of visual music, the exploration of the relationship between music and abstract imagery. Students will investigate this subject from its predecessors to current day-tracing the constantly expanding practices of visual music through painting, cinema, performance, and installation-form intuitive sketch films to complex algorithmic works.

Cross-Listed as: MUS 16.01

Distributive: Dist:ART; WCult:W

**FILM 41.12 - Screwball Comedy**

This course examines the rise of the classic Hollywood screwball comedy, 1934-1944, and its enduring impact. Occasionally thought of as “a sex comedy without sex,” the screwball comedy blends slapstick, farce, and lunacy with sophisticated, rapid-fire dialogue and abundant wit. Starting with the early entries like *It Happened One Night* (1934) and *My Man Godfrey* (1936), the course includes such classics as *His Girl Friday* (1940), *Ball of Fire* (1940), and *The Lady Eve* (1941). Screenings are accompanied by primary and secondary texts that focus on the wide-ranging meanings that the genre has held over time in literature, film history, and theory.

Distributive: Dist:ART; WCult:W

**FILM 41.13 - Women in Musicals**

This course traces the representations of women in the American musical genre from the 1930s to the present. We will look at the presentation of singing and dancing as labor; demands made on women’s bodies in the musical form (including the use of doubles to produce “ideal” bodies); ethnic heritage displayed or disguised; the way the genre can undermine or explicitly challenge normative gender expectations; the representation of historical figures in musical biographies, including those underrepresented in previous eras – for example, African American performers and non-performers (women directors, songwriters, etc.). This course is not open to students who have received credit for Film 07.12

Distributive: Dist:ART; WCult:W

**FILM 41.14 - The Western**

Instructor: M. Williams

Explores the development of the Western genre from its beginnings in pre-cinematic culture and silent cinema through its maturation in the Classical Hollywood era (1930s to 1950s), its path toward revisionism in the 1960s and 1970s, and its fluttering obsolescence ever since. Historical analysis of this most prolific, and most “American,” of Hollywood genres provides a singularly nation-centered perspective on changing U.S. culture, ideologies, and sensibilities.

Distributive: Dist:ART; WCult:W

**FILM 41.15 - 20th-Century American Film Comedy**

Instructor: J. Rapf

Though tragedy is a more respected genre, comedy emanates from the same source: the recognition of a gap between what is, and what ought to be. This course will enrich our understanding of how this predicament was negotiated on American screens during the cinema's first full century, from Keaton, Normand, and Chaplin through Hepburn and Jerry Lewis. Course combines several key approaches to US comedy: its cultural/countercultural bent, its development as a Hollywood genre, and its representations of women and gender.
FILM 41.16 - Space and Genre
Instructor: D. Garcia
This course explores representations of space and place in Hollywood genres. We will examine the musical, the melodrama, and film noir to discern how space informs and complicates their conventions; discuss how cinematic representation of specific spaces (the apartment, the city, the hotel) blurs genre boundaries; and consider how race, gender, and sexuality influence cinematic representations of spaces. Students will produce their own video essays to intervene in current scholarly debates on cinema, genre, and spatial representation.
Distributive: Dist:ART; WCult:W

FILM 41.17 - Water In the Lake: Real Events for the Imagination
Instructor: J. Mack
This class, based on the book Water in the lake: Real Events for the Imagination(1979) by Kenneth Maue, fuses cinema, the studio arts, sound, and theatre with the natural landscape in an intense study of improvisation, collectivity, and collaboration in conjunction with the environment. Looking at religion, law, science, and politics as a way to consider cinema, sound, land art, site specificity, performance, and the unfolding of real time events within the artistic context, we will gain the critical capacity to understand intersections of cinema, performance art, video art, land art, and sonic practice. Through viewing films, listening to sounds, and studying works of art spanning painting, sculpture, installation, site-specific practice, and performance, we will inspire and provide critical/historical contexts for your personal work in the course.

Cross-Listed as: MUS 16.03
Distributive: Dist:ART

FILM 41.18 - Latinx-ploitation
This course serves as an introduction to the history of Latinx cinema, Latinx film spectatorship, and exploitation cinema in the United States. Latinx audiences have long been an interest and target of the Hollywood studios. Since the beginning of sound in film, the studios grappled with reaching this linguistically and culturally-diverse demographic. Since the late 20th century, the studios have widely acknowledged the box office power of that group. Time and again, however, the Hollywood industry has failed to accurately identify and engage Latinx peoples on both sides of the US-Mexico border. Applying theories of racialized spectatorship and performance and film genre and authorship, we will interrogate this historically troubled relationship and grapple with its consequences for Latinx representation and inclusion in American cinema.

Cross-Listed as: LACS 24.50
Distributive: Dist:ART; WCult:NW

FILM 41.19 - The Musical
Instructor: D. Garcia
This course introduces students to the history and evolution of the musical film. From the beginnings of sound cinema, the musical has entertained diverse audiences. While its popularity has at times waned, the musical continues to appear on 21st century movie screens. What accounts for the musical’s popularity in different moments in the past? What have been its central themes and cultural preoccupations? How have filmmakers developed a cinematic language in order to lend musicals expression? And what kinds of theoretical paradigms have scholars employed in order to better understand the genre’s evolution?
Distributive: Dist:ART; WCult:W

FILM 41.20 - Special Effects in Film History
Instructor: P. Young
“Special visual effects” has many meanings in cinema. When we use the term in the twenty-first century, we usually refer to computer-generated fantasy images of otherworldly creatures or impossible locales. However, the history of special visual effects begins with the basic technologies of photographically filmed moving pictures, and effects—whether matte shots using optical printers in post-production, rear- or front-projection process shots done live on-set, in-camera mattes and mirror shots, or “creature” effects controlled by wires, puppetry, robotics, or remotes—have served many purposes besides generating fantasy worlds. Beginning in the 1890s, the magician and filmmaker Georges Melies used editing, photographic processes, elaborate puppets, and ornate costumes and sets to take viewers up to the moon or down to the bottom of the sea. Only two decades later, however, processes similar to those utilized by Melies were primarily employed to film realistic-looking settings at a fraction of the cost of location shooting. Today, scholars of special visual effects try to answer historical as well as technical questions about what has motivated the incredible innovations of “FX,” the forms they take, and the functions they perform for producers and viewers. What determines these different uses of special effects? How have these processes and practices developed in the US film industry and among independent creators? And how do the standards of realism and plausibility—the standards by which special effects are traditionally judged—change depending on the era, the technologies being employed, and the culture in and for which films are
made? This course will place us in the thick of such contemporary scholarly debates about special effects and their history. By viewing key examples of special effects cinema from the past century (primarily from US films) and reading what historians have argued about the significance of these films, students will learn to write and think in these terms and to develop their own educated stances on the topic—to participate as full partners in these scholarly debates. Students will also learn to consider such conditions as industrial history and cultural change as factors in the development of special effects as well as what these effects mean to their viewers.

Distributive: Dist: ART

FILM 42.02 - The French New Wave
Instructor: J. Ruoff
An exploration of selected films by French new wave directors Jean Rouch, Alain Resnais, Agnès Varda, François Truffaut, Chris Marker, and Jean-Luc Godard, with emphasis on relationships between fiction, documentary, and reality. We will consider these works in relation to aesthetic, cultural, and political developments in postwar France. We will also explore the role of film criticism and of venues such as the Cinémathèque française.

Distributive: Dist: ART; W

FILM 42.03 - The New Latin American Cinema
Instructor: G. Gemunden
With the emergence of filmmakers such as Alejandro Iñárritu (México), Lucrecia Martel (Argentina), and José Padilha (Brazil), the last decade has seen a creative boom in Latin American cinema that includes both blockbusters to experimental film. Beginning with a quick overview of key forerunners, this course will focus on the major directors, genres and aesthetic trends that characterize the present moment, as well the role film festivals (Havana Film Festival, Bafici/Buenos Aires) have played in promoting these films.

Cross-Listed as: COLT 52.02 INTS 17.12 LACS 30.06
Distributive: Dist: INT

FILM 42.08 - Asian Animation as Socio-Political Artifact
Because animated films have traditionally been targeted at children, animators in Asia have often been able to side-step much of the political control exercised by some of their more centralized governments to create sophisticated artistic works that speak as much to educated adults as they do to children. The course will feature the most interesting of these works from China, Japan, and Korea, and students will analyze them within a socio-political and cultural context. Particular attention will be paid to the development of both originality and argumentation in student papers and class participation.

Cross-Listed as: AMES 40.04
Distributive: Dist: ART; WCult: NW

FILM 42.09 - African Cinema
Instructor: A. Coly
This course focuses on the cinemas of Francophone Africa. We will examine early Western filmic representations of Africans as savages devoid of culture and history. We will then examine how African filmmakers have challenged those images by creating new depictions of their societies, offering Africa through African eyes. We will explore the social, historical, and political contexts of these films and explore their aesthetic and narrative characteristics. We will discuss issues and theories related to the definition of the so-called third world cinema, postcolonial cinema, and postmodern cinema.

Cross-Listed as: AAAS 55.01
Distributive: Dist: ART; WCult: NW

FILM 42.13 - Global Documentary and Transnational Cinema
Instructor: M. Roberts
Since the Lumière Brothers first began dispatching camera operators around the world to shoot actualité films over a century ago, documentary film and video have played a major historical role in constructing and mediating popular understandings of the global. This course considers that history, from its origins in ethnographic documentary to contemporary IMAX films and YouTube videos. In assessing the wider implications of documentary’s relation to the global, selected transnational fiction films will also be screened and discussed.

Distributive: Dist: INT or ART

FILM 42.14 - Mexican Cinema
Instructor: D. Garcia
This course serves as an introduction to Mexican cinema and the global system of filmmaking in which it developed. We will examine the history of Mexican film, filmmaking practices, aesthetics and business concerns, as well as audiences inside and outside of Mexico. One central point of inquiry will be the extent to which Mexican cinema was truly "national." We will question the concept of “national cinema” all the while analyzing the extent to which issues in Mexican politics, society, and culture were reflected on and influenced by the screen. The transnationality of Mexican film will be central to our investigation as we examine the influence of the United States and Hollywood during Mexican cinema’s development. Students will learn about the various styles and genres of Mexican film and the theories with which
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FILM 42.16 - Cinema of Black Protest

This course considers Black histories of protest in conjunction with the history of Black representation in film. We will analyze historical documents, scholarly articles, legal cases and historical accounts of the major moments in Black resistance in the United States. We will begin with the protests against lynching in the early twentieth century and the Civil Rights and Black power era of the 1970's Blaxploitation film genre through contemporary independent films. We will discuss issues of race and gender, racism, sexuality and homophobia as well as misogyny and sexism in Black representation. Students will be expected to watch and discuss films as well as read scholarly articles on race theory, queer theory, feminist theory and cultural criticism.

Cross-Listed as: AAAS 32.05
Distributive: Dist:SOC; WCult:W

FILM 42.17 - Of Golems, Vampires, and Robots: The Haunted Screen of Weimar Cinema (in English)

Instructor: G. Gemunden

Weimar Cinema prefigures the rise of the Third Reich, but it also reacts to the trauma of the lost War, and to the fear of changes brought on by modernity: secularization, industrialization, urbanization, the rise of the “new woman,” and changing forms of sexuality. In this course, we will meet the most famous of these uncanny cinematic creations and study them in the larger cultural and social context that marked the transition from the demise of the German Kaiser to the advent of the Führer.

Cross-Listed as: GERM 43.05
Distributive: Dist:ART; WCult:W

FILM 42.18 - Migration, Mobility and the Movies: German Film in Global Context

Instructor: G. Gemunden

European borders have become a popular setting in world cinema since the development of global tourism and the recently declared “international immigration crisis”. “Not open to students who have received credit for GERM 043”

Cross-Listed as: GERM 043
Distributive: Dist:INT or ART; WCult:CI

FILM 42.19 - The Middle East in Film: Picturing the Past and Present

Instructor: G. Gemunden

How may films serve as a starting point for revisiting the past and rethinking the present? In what ways may representations of the Middle East differ over time and across places? And why do the stories told by filmmakers in documentaries, historical dramas, and other cinematic productions matter? Movies depicting the Middle East routinely draw mass audiences and consequently shape popular perceptions of the region the world over. The very same films, however, are all too often understood by many people as mere entertainment. In this class, we will consider what movies, if treated critically, may teach us about Middle East history. Beginning with a brief introduction to film and media studies, we will contemplate where the Middle East fits into this field of inquiry. Once establishing how we will approach movies and the Middle East throughout the term, we will navigate a number of key themes together, from war, memory, and migration to (mis)information, revolution, and representation. Along the way, we will watch everything from indie films to big budget blockbusters. Regardless of the exact form these projects assume, all of the pictures we explore will generate debate and discussion around the past and present. Among the topics we will cover are the Israeli-Palestinian conflict, European colonialism, and America’s legacy in the Arab world. To assist us on this journey across the Middle East and well beyond its
boundaries, we will engage several primary sources, with motion pictures at the forefront. These thought-provoking items will empower us to partake in conversations that traverse languages, national borders, historical eras, and artistic genres, enabling us to view the Middle East in an entirely new way.

Cross-Listed as: JWST 44.01 MES 15.11
Distributive: Dist:ART; WCult:NW

FILM 42.20 - The Berlin School
Instructor: G. Gemunden
This course examines the contemporary German film movement known as the "Berlin School," a group of approximately a dozen filmmakers with more than 40 features to their credit. Dissecting the everyday reality of post-wall Germany, this counter-cinema draws on Italian Neo-Realism, the New German Cinema, and contemporary international independent film to advocate radical notions of realism and narrative conventions, challenging viewers to rethink political filmmaking in a national and transnational environment. Screenings will include films by key filmmakers associated with the Berlin School as well as by Luchino Visconti, Wim Wenders, Kelly Reichardt, Apichatpong Weerasethakul, and others.

Distributive: Dist:ART; WCult:W

FILM 42.21 - Afro/Black Paris in Film and Life
This course takes students on a journey, not to an actual place per se in France, but rather through a lived experience, known as “Afro/Black Paris.” Paris, an historical site of freedom from racial enslavement, has long been a contested home and homeland for Africans and their descendants, that is, diverse people racialized as black whose presence in Paris results from colonization, exile, expatriation, and im/migration, including African Americans. The City of Light is arguably one of the most beautiful and exciting destinations in the world. However, all that glitters is not gold. Matters of race and anti-blackness co-exist with a variety of myths, narratives, and representations of Paris and France as color-blind and race-free. Through French film, students will explore these and related issues and thereby gain a broader understanding of pressing social questions, involving anti-racism, belonging, inequality, racism, and their intersections. This course follows a lecture-discussion format.

Cross-Listed as: AAAS 68.08
Distributive: Dist:INT or SOC; WCult:CI

FILM 42.22 - Moviegoing in America
Instructor: D. Garcia
This course serves as an introduction to the history of moviegoing in the United States. Students will learn about the earliest moviegoing spaces and trace the social, cultural, and technological dynamics of when and how the places of moviegoing changed over time. The course will introduce and extend discussions of various theories of spectatorship, including feminist theories and critical race theory, in order to better understand the experiences of peoples of color, immigrants, and women in this history. Students will learn how to apply these theories to the analysis of film and to their own archival and ethnographic research projects.

Distributive: Dist:ART; WCult:CI

FILM 43.01 - Women Make Movies: Women and Film Authorship
Instructor:
Women have worked in the film industry since its very beginnings, yet it is a popular conception that this is a recent phenomenon. This course will examine how women participated in the mainstream American film industry from the 1890's to the present as producers, directors, writers, photographers, fashion designers, performers, and audiences. Concept about female authorship, as well as historical questions about the cultural, social, and industrial contexts for women's power in the industry, will be explored. Films made by prominent women producers, directors, and writers will be screened.

Cross-Listed as: WGSS 56.11 WGST 56.11
Distributive: Dist:ART; WCult:W

FILM 43.02 - Family Matters: Pedro Almodovar, Gender Reversals, and New Communities
Pedro Almodóvar Caballero, Spain's most internationally acclaimed filmmaker will be studied in this course as representative of what critics have termed the New Spanish Cinema Movement. Almodóvar's filmmaking, both in aesthetic and cultural terms, addresses issues which will appeal to students interested in understanding how culture, politics, and aesthetics get entangled in ways that “queer” gender identity, family structures, notions of community and the societal expectations and limitations surrounding them. The course will also compare his work with other contemporary filmmakers that have reconfigured in their films the boundaries of “family.”

Cross-Listed as: WGSS 56.03
Distributive: Dist:ART; WCult:CI

FILM 43.04 - Hitchcock
This course examines important Hitchcock films produced in both the UK and the US, from three perspectives:

Hitchcock as a cinematic pioneer, an innovator in film form and style;
Hitchcock as an auteur whose thematic and aesthetic concerns link his films in overt and covert ways; and Hitchcock’s films as cultural documents that engage deeply with questions of democracy, individual rights versus communal concerns, mass culture, sexuality, and gender.

Critical and theoretical texts on Hitchcock (including historical, feminist, and theoretical interpretations of his work) will be read and discussed along with the films. Your work will be evaluated based on your application of concepts and interpretive strategies from the readings to Hitchcock’s work, your ability to develop productive research questions about his films, and your curiosity, scholarly energy, and creativity. Participation in daily discussions is mandatory.

Distributive: Dist:ART; WCult:W

FILM 43.05 - Truffaut and Godard
Instructor: J. Mack
This course will examine the films, careers, and legacies of two critics and directors who were fundamental to the French New Wave and its legacy: Francois Truffaut and Jean-Luc Godard. Each is an indelible figure in film and media history. The two were at first close colleagues and then diverged radically, both as filmmakers and as people. Considering their respective careers in relation to one another will place their films into new historical relief. We will survey the important body of film criticism that each produced before becoming a renowned director, along with historical and analytical writings about both. Most importantly, we will examine major films and other media texts (such as television programs) that each created. Our goal will be to understand the phenomena known as "Truffaut" and "Godard" in relation to the development of auteur methodologies, assumptions, and practices. We will also consider the broad international influence of both directors, especially in film form and style. In addition to in-class lectures and screenings, the course will include a range of online and reserve assignments (films, readings, discussions). Two short papers, a research paper, and a final exam will be assigned.

Cross-Listed as: SART 17.17
Distributive: Dist:ART

FILM 44 - Theory Meets Practice
Theory Meets Practice examines particular modes or elements of film, video, television, or new media from both theoretical perspectives and production practices, with an emphasis on how theory has informed production choices and how production practices have influenced film and media theories. Students will engage with theoretical approaches to a particular media practice and participate in media production. Topics will include sound theory and practice, handmade cinema, cut and paste cinema.

Distributive: Dist:ART; WCult:W

FILM 44.01 - Handmade Cinema
Instructor: J. Mack
This course will explore non-conventional, artisanal modes of experimental and avant-garde cinema that focus on the materiality of moving image media formats. By utilizing a variety of techniques—direct image and sound manipulation on 16 mm film, hand-processing, rayograms, animation, special effects, and live-projector performance—students will gain total filmmaker toolsets through constructing a series of exercises that will screen publicly. In addition to producing personal projects, students will complete a series of short papers that build upon our screenings, readings, and discussions to locate handmade cinema within historical and cultural contexts.

Cross-Listed as: SART 17.17
Distributive: Dist:ART

FILM 44.02 - Cut and Paste Cinema
Instructor: J. Mack
Using principles of both animation and editing, this course will explore the results of combination in cut and paste cinema in conjunction with the history of collage—from classic uses in painting, photomontage, architecture, and literature to contemporary functions via mash-ups, samples, and digital manipulation. Through producing projects, screening films, and discussing readings, we will explore the varying possibilities of forming new meanings via the pairing of found elements.

Distributive: Dist:ART

FILM 44.03 - Filming the Landscape
This class will study and compare representations of the American landscape through the history of film and painting as well as the depiction of landscape and environmental issues manifested through television and video. Students will be required to complete a short film or video every two weeks referencing sites visited.

Distributive: Dist:ART; WCult:W

FILM 44.04 - Sound: Practice and Theory
Instructor: S. Mizrahi
Through the analysis of soundtracks and the creation of soundtracks, this course will explore the history of film sound and the way theories of sound reproduction continue to influence the development of sound technology and the practical choices made by sound recorders, mixers and editors. We will look at early sound films, 70s breakthroughs (Altman, Murch), and the imaginary soundscapes of science fiction and horror films.

Distributive: Dist:ART; WCult:W
FILM 44.06 - Storytelling in the Digital Age
Instructor: J. Chamberlin
How can you use storytelling as a creative strategy for the digital age? Learn how to craft experiences through the power of story across a variety of media forms. Creative assignments explore fundamental storytelling elements and tactics, and interrogate how form impacts content. In the final project, students will push the boundaries of storytelling and content creation to develop a concept pitch for a project of their own design.
Distributive: Dist:ART

FILM 44.07 - Docu-Fantasy and the Speculative Narrative in Multi-Ethnic Cinema
Instructor: S. Mizrahi
This course traces the evolution of the speculative narrative in non-fiction film in multi-ethnic and marginal filmmakers. We look at the work of Vietnamese, African-American, and German filmmakers in order to analyze how their works were part of a movement that affirm the validity of dreams, and function to expand the filmic imagination past traditional conceits of reality and realism. Final projects may be in any chosen genre, including, but not limited to, abstract imagery, documentary films, installations or experimental formats that invoke the theme “docu-fantasy”.
Distributive: Dist:ART

FILM 44.08 - The Art of Adaptation and Storytelling
This theoretical and practice-based course is a study of the conversion of oral, historical and fictional narratives into stage drama, cinema and literary texts. Special attention will be given to the cultural and political implications of cross-generic transformation, formulaic conventions and concepts of “genre,” “crossover appeal” and “adaptation.” Throughout the term, the intersections of race, culture and economics will be regularly questioned. Black cultural storytelling in various mediums and genres will be examined to serve as a point of entry into discussion of cultural worldview and storytelling in order to aid and encourage students to explore the theories, concepts and practice of adaptation from multiple, diverse vantage points and areas of interest. Building upon the adaptations they created in the first half of the quarter, students begin translating their stories visually in the “production” phase of the course. They assess how emotional information is translated in the original form and invent new ways of translating this content in their own visual format. Final projects can be interactive stage pieces, video installations or films.
Cross-Listed as: COCO 032
Distributive: Dist:ART; WCult:CI

FILM 44.09 - Cinematography I: Lighting and Composition
Instructor: I. Kwayana
The primary focus of Cinematography I is to explore lighting and composition as an extension of cultural identity to explore how to use the apparatus of the camera to tell a compelling story visually. In addition, we look at the elements of composition, aesthetic style, and lighting that factor into a visually compelling narrative. Whether fiction or non-fiction, or all around experimental, we ask the question- how can we use cameras to provoke emotional, visceral and even intellectual responses in the viewer. The course introduces students to the artistic and technical language used across analog and digital platforms but emphasizes experience. Students also gain practice in the following areas: Mechanical Camera Control and Operation, Lighting, Principles of Color, Exposure, Resolution/Depth of Field, Movement and Composition. Student mastery of these concepts is reinforced through dynamic class exercises and a final project. Additionally, students develop a sense of visual style and learn to interpret the appropriate application of it according to story or product.
Distributive: Dist:ART

FILM 44.10 - Writing for Television
Instructor: E. Carabatsos
This workshop course introduces students to the art and craft of writing for television. We’re living in the midst of the (second) Golden Age of Television. More and more Americans are turning away from the traditional movie theater experience and embracing long form, character driven, small screen stories. In the film world, directors are king, but in television, the writers reign. It is their vision that gets put on the screen. Throughout the course, each student will workshop and develop a thirty minute pilot script and Show Bible, as well as read and analyze contemporary pilot scripts to see what exactly makes a pilot
Cross-Listed as: CRWT 41.01
Distributive: Dist:ART

FILM 45 - U. S. Television History
This course will examine the history of television as an emerging technology; its dynamic interaction with government, private industry, and audiences; and its impact on society and culture. It will include a consideration of both pre-television media (especially radio) and new media (cyber-culture) as they inform a historical understanding of TV. The norms and practices of the network era (1955-1985) will be positioned as a functional middle-ground, much in the way that classical Hollywood Cinema (1920-1960) serves as middle-ground in motion picture history. Students will be encouraged to
develop their capacity for a critical distance from contemporary media via this historicized approach. Open to all classes. Limited to 50 students.

Distributive: Dist:ART; WCult:W

FILM 46.01 - Television and Histories of Gender
Instructor: M. Desjardins

This class examines the ways American commercial television has historically “assumed” gendered positionings of its audience, as well as operates as one of the strongest cultural touchstones of gendered identity in patriarchal, consumer society. After tracing television’s place in the construction of gendered ideals through the history of the situation comedy, we examine “gender-specific” genres, such as sports, westerns, cop shows, and soap operas. Representative programs will be screened, and feminist essays on television history/theory are among assigned readings. Open to all students.

Cross-Listed as: WGSS 56.01
Distributive: Dist:ART; WCult:CI

FILM 46.04 - Broadcast Journalism and Electronic Journalism History
Instructor: M. Williams

The history of broadcast and electronic journalism in the United States, from telegraphy to the internet, focusing on the development of and changes to its fundamental relation to the public sphere. We will pursue a contextualized historical understanding of the formats, aesthetics, economics, and industrial organization of these media, in addition to case studies of specific debates, events, and individuals that have conditioned the impact of these media on society. We will invite speakers who have worked in these media industries and/or these histories. Students will be expected to create a digital video project and to write analytical papers, including a research paper.

Distributive: Dist:SOC; WCult:W

FILM 46.06 - Topics in Television: Cop TV

Police shows have been important part of broadcasting in the US since before the beginning of television. This course explores how police shows have evolved over the last seven decades; the changing representations of police and procedures; the use of the genre to deal with “social problems”; fiction versus non-fiction programs; how these programs reflect real world controversies involving police; how the development of this genre reflects changes in the history of broadcasting. Throughout we will look at films that influenced the style and content of these programs.

Distributive: WCult:W

FILM 46.07 - Television and New Media
Instructor: M. Roberts

This course examines the transformation of television in both its commercial and public-service forms by the rise of the internet as a mass medium, YouTube and participatory culture, and most recently, social networks and mobile communication. On the one hand, it will show, digital technologies and computer networks have disrupted the historical power relations between television networks and their audiences, enabling viewers to watch programming whenever and wherever they like, to avoid commercials, and to become producers themselves; yet at the same time, networks and advertisers are quickly finding new ways to adapt older business models and forms of storytelling to today’s multi-platform media environment. Attention is paid to questions of agency in the control of programming flows and consumption; the shift from ratings to analytics, the emergence of transmedia storytelling as a production model; new forms of digital aesthetics (e.g., “slow TV”); and celebrity, branding, and neoliberal citizenship.

Distributive: Dist:ART; WCult:W

FILM 46.08 - Television Without Borders: Local Communities, Global Audiences
Instructor: M. Roberts

Considers television as a transnational medium from the first international broadcasts of the late 1950s to its digital descendants in the early twenty-first century. As television genres and formats continue to mutate and proliferate (digital downloads, streaming, etc.), the course addresses fundamental questions about its nature as a medium of mass communication: What is television for, today?

Distributive: Dist:INT or ART; WCult:W

FILM 46.09 - Critical Approaches to Media Production

The course analyzes and discusses various production practices in U.S. media industries. Through readings, audiovisual materials, and guest speakers from a wide array of media positions, we will explore various phases of media production in film, television, live events, journalism, and more. In particular, we will focus on dynamics involving race, gender, and sexuality in the labor of media production, as well as in the media products themselves. Overall, the course considers the ways in which media production and representations simultaneously reflect and reinforce social stratification and inequalities. Students should emerge from this course with a strong understanding of hierarchies of labor in media production, a practical sense of everyday practices in a diverse array of media production fields, as well as a firm understanding of the media’s effects on and interaction with identity politics. This course is intended to provide a 360-degree (over)view of media production.
Distributive: Dist:ART

**FILM 47.01 - Video Mashups**

Instructor: J. Ruoff

Individually, in pairs, and in groups, students edit short videos that appropriate, quote, and re-contextualize images and sounds from other sources. These collages include movie trailer mashups, political videos, supercuts, and music videos. In addition to readings, there will be screenings of avant-garde and documentary found footage films as well as a wide variety of digital video mashups. No prior editing experience required.

Distributive: Dist:ART

**FILM 47.05 - History of Documentary**

Instructor: J. Ruoff

Documentary film combines nonfiction with an aesthetic aspiratio. This course will explore achievement in the documentary, raising issues about the influence of documentary upon political persuasion, historical memory, the status of film as evidence and its utility as a means of investigation. We will look at film from a broad range of styles, viewpoint and eras. Documentary represents an alternative to the dominant entertainment cinema and as such, frequently addresses controversial issues directly. Students should be prepared to explore sensitive issues of race, class and gender raised by non-fiction film.

Distributive: Dist:ART; WCult:W

**FILM 47.06 - Audio-Vision: Film, Music, Sound**

This interdisciplinary course explores the intersection of Film, Music and Sound, navigating alternatively through the history of film and music from both perspectives, proposing a dual approach to film and music, imaging and sound. The course alternates topics of cinema, music and sound and requires extensive viewing and listening, weekly readings and class discussions. Topics ranging from sound experiments of the early avant-garde, through Visual Music, visual sound, audiovisual arts, experimental audiovisual installations and live arts practices will be studied along classic Hollywood, European and Asian films. Focusing on the connections between filmmakers, composers and artists, while tracing the evolution of audio-vision and its interconnections with music composition and sound innovation. The course structure is a double helix interconnected history of film and modern music from 1895 till today.

Cross-Listed as: COCO 016 MUS 17.03
Distributive: Dist:ART; WCult:W

**FILM 47.07 - Migration Stories**

Instructor: G. Gemunden

With over 50 million displaced people today, migration is one of the most compelling problems of our time. Filmic and literary representations of migration focus on borders, different types of migrants, and their border crossing experiences. We will study migration from Latin America to the U.S.; from Africa and Eastern Europe to Western Europe; and internal migration within these countries. We will also analyze how Hollywood cinema itself creates images and values that drive migration.

Cross-Listed as: COLT 57.05 INTS 17.04
Distributive: Dist:INT or ART; WCult:CI

**FILM 47.16 - Film Festivals**

Instructor: J. Ruoff

Film festivals have become increasingly important institutions of film culture, even what one programmer called “an alternative distribution network.” Though invented in Europe in the 1930s, festivals are now a worldwide phenomenon encompassing art, commerce, tourism, and cultural identities. Festivals often provide meeting points for critics, directors, producers, distributors, actors, audiences, and others. Students will undertake case studies of individual film festivals from around the world.

Distributive: Dist:ART

**FILM 47.19 - Krieger's Virtual Girlfriend: Japanese Anime and the idea of the Post-human**

Instructor: Washburn

An examination of major trends in popular visual culture in Japan since the 1980s focused on the growth in production and distribution of animated films, tv series, and video games. Screenings will include works by Miyazaki Hayao, Rintaro, Takahata Isao, and Kon Satoshi. Readings will include both critical and historical sources that will provide the social and economic contexts for the development of the anime industry, theories of animation, and the global impact of Japanese popular culture.

Cross-Listed as: AMES 43.09 ASCL 62.09
Distributive: Dist:ART; WCult:NW

**FILM 47.20 - Curating and Microcinema**

Instructor: A. Nash

Curating and Microcinema. This course provides an introduction to the practice of curating film and video-from shorts programs, to retrospective screenings, to moving-image installations and exhibitions of production artwork. Through a series of on-campus presentations, readings, screenings, and discussions, the course will prepare students for final projects in which groups of students organize moving-image events for members of the community.

Distributive: Dist:ART
FILM 47.21 - Scenes from the City: Urbanism and Modern American Visual Culture

Instructor: M. Desjardins, Domosh

From silent films to Mad Men, the American city has been the site through which “modern” identities have been imagined and created. This course draws on Cultural Geography and Film and Media Studies in order to interrogate this development. Through a variety of readings and screenings of films and TV shows, we will be examining American downtowns, suburbs, and homes as sites for the construction of classed, racialized, sexualized and gendered identities in three different time periods: the early 20th century, the post WWII era, and the contemporary period. We will interrogate such topics as: the real and imagined role of “shopping” women and gender in the shaping of modern downtowns; the relationship between the American suburb, new sexual identities and the film Pillow Talk; and how a particular nostalgia for the past that has led to the popularity of such shows as Mad Men can also be seen on the streets of Hanover (neo-traditional urbanism).

Cross-Listed as: GEOG 80.04
Distributive: Dist:SOC; WCult:CI

FILM 47.22 - Buddhism and Film

“What is Buddhism?” “How can it be something expressed in and through the medium of film?” and “What actually constitutes a Buddhist film?” After an introductory survey of central topics in Buddhism, this course will explore the cinematic presentation of Buddhist religion, philosophy, practices, saints, and institutions. By learning to watch films critically from a Buddhist perspective, students will explore the process through which we create the meaning in films and everyday life. Open to all.

Cross-Listed as: REL 41.02
Distributive: Dist:TMV; WCult:NW

FILM 47.23 - Berlin--New York--Hollywood: A Cultural History of Exile

This course focuses on the condition of exile. It takes as its main example “one of the largest and most dramatic mass migrations to this country in the twentieth century,” namely that of some 130,000 German-speaking refugees who arrived on these shores between 1933 and 1945. The course will examine several of the most significant areas that were influenced by this vital cultural shift: the American academy and intellectual life; the film industry (“Weimar on the Pacific,” as Hollywood was sometimes called); and, more generally, the political and cultural debates concerning the “German Question,” i.e., what to do with Germany after the war. We will explore how the exiles viewed their role and how they viewed the interplay between American and European culture.

Distributive: Dist:INT or ART; WCult:W

FILM 47.24 - Race & Gender in American Film

Instructor: D. Garcia

This course is an introduction to the history of race and gender in American film. These fundamental social constructs in American life have been central to the development of American film narrative from the beginnings of cinema at the turn of the twentieth century. In turn, American films have profoundly shaped the ways that we think about race and gender and racialized and gendered beings. We will analyze the shifting and situational meanings of race and gender throughout the twentieth century, and in particular, how they have been influenced by the forces of history, including wars, economic depressions, and social movements. While we will focus our attention on Hollywood cinema of the “golden age”, the period from the 1920s-1960, we will also spend significant time considering American independent cinema and the post-classical period of filmmaking from the 1960s to the present. In our consideration of race and racialized peoples, we will include African Americans, Native Americans, Asian Americans and Latinos. Our discussions of gender will be expansive to include not just women and femininity, but men and masculinity as well.

Cross-Listed as: AAAS 32.01 LATS 025
Distributive: Dist:ART; WCult:W

FILM 47.25 - Black Noir

In this course, we will study black American literature that focuses the noir genre on black people themselves. We will read gritty, urban crime novels that attempt to expose inequities in black American lives and dispel the notion that a descent from whiteness results in blackness. Rather, the black people in these texts exist in darkness because they are living in alienated communities. We shall investigate how the noir genre is altered when “noirs” are the subjects and the authors. In addition to primary texts, the course will engage critical responses to these works.

Cross-Listed as: AAAS 81.07 ENGL 53.07
Distributive: Dist:LIT; WCult:W

FILM 47.26 - Film and Fashion: Dressing the Part

Instructor: M. Desjardins

This course examines the interrelations between film, costuming, and fashion cultures. We will look at theories of fashion, “the fashioned body,” and costume, reading them against trends in fashionable dress, body image, and fashion subcultures, as well as against histories of film costuming and spectacle. Screenings include media texts from different historical periods that reflect or have
influenced fashion of their time and/or represent interesting challenges for costuming.

Distributive: Dist:ART; WCult:W

**FILM 47.27 - The Hollywood Studio System**

Instructor: M. Desjardins

This course explores the historical foundations of the Hollywood Studio System (1925-1960) in relation to how creative decisions were made and practices of production and promotion were enacted in the business of industrial film production during that era.

**FILM 47.28 - Queer Cinema**

What constitutes queer aesthetics and politics today? How does it relate to fights for LGBTQ rights? And how have these questions been represented on screen? This course will address these questions by introducing students to the history and theory of “Queer Cinema” broadly construed. We will pay particular attention to the aesthetic strategies and political interventions of filmmakers who use film to address broader debates in queer theory and LGBTQ history.

Distributive: Dist:ART; WCult:CI

**FILM 47.29 - Latinx Stage and Screen**

Instructor: D. Garcia

This course will examine the Latinx stage and screen, focusing specifically on musicals that portray Latinx lives. We will focus on canonical works—including West Side Story, Zoot Suit, and Hamilton—in order to deepen our knowledge of their form, production history, historical reception, and contemporary place in American culture. We will take an interdisciplinary approach, drawing our reading assignments from the fields of Ethnic Studies, American Studies, Performance Studies, and Film and Media Studies, in order to analyze these productions as they traveled from stage to screen (and sometimes, back to the stage) and the representational and cultural politics involved in that shift. Finally, we will explore not only the musicals themselves, but also the historiography that has informed our understanding of them. Writing assignments will ask the students to reflect on the evolution of scholarly arguments regarding these canonical works.

Cross-Listed as: COLT 40.08 LACS 50.18

Distributive: Dist:INT

**FILM 47.30 - Black Looks: A Survey of Race and Representation in Cinema and Visual Media**

This course surveys the evolution of race and representation in visual media. Special attention will be given to black subjects and the socio-economic, historical and political factors that feed into depictions of black life, dominant tropes within these historic depictions, and the aesthetics of emergent voices that help to shape a new black subjectivity on screen. Students are encouraged to draw connections between discourse about black subjectivity with that of identities through doing “close readings” of screen representations and images. In their final projects, students write about and create work relating to black subjects or the broader theme of race and representation in visual media.

Distributive: Dist:ART; WCult:CI

**FILM 47.31 - Sounding Out Power and Dissent**

How does authority reach the ear? What are the sonic features of speaking truth to power? Who shapes the ways we hear, and where might we learn to listen differently? This course sounds out displays of authority as well as how we can act against such structures by turning to representations of the auditory in both literature and cinema. As we consider questions of sound and its reproduction, we will work across geographical contexts to determine which concerns resonate widely and what role acoustics, or the specific properties of a space, might play. Readings will come from writers such as Valeria Luiselli, María Sonia Cristoff, Franz Kafka, Frantz Fanon, and Severo Sarduy, while films will range from Fitzcarraldo to Sorry to Bother You.

Cross-Listed as: COLT 40.08 LACS 50.18

Distributive: Dist:INT

**FILM 47.32 - Sounds of Totalitarianism and Resistance**

Instructor: D. Simon

This course is dedicated to exploring how twentieth-century music and culture became entangled in the political and social conditions of governments. We will read foundational scholarship in Fascist Studies, musicology, media and sound studies that takes into account the multifaceted nature and deeply rooted legacy of totalitarian states. Our goal is to understand how composers, performers, filmmakers and audiences have reckoned with authoritarian politics and to develop a nuanced understanding of politics’ role in music and media, both historical and contemporary.

Cross-Listed as: MUS 40.06

Distributive: Dist:ART; WCult:W

**FILM 48 - The Map**

Maps involve purposeful omission; they require compression; they are subjective in their emphasis and purposeful omission; they require compression; they are subjective in their emphasis and perspective; they are of the imagination and create illusions of space, time, and place. The Map, the group visits map collections, reads critical and historic essays, investigates digital maps and territories, and interviews artists, cartographers, and geographers about their practices. Weekly assignments
include several maps per week--fanciful, conceptual, and practical.

Distributive: Dist:ART

**FILM 48.01 - The Map**

Maps involve Purposeful omission: they require compression; they are subjective in their emphasis and purposeful omission; they require compression; they are subjective in their emphasis and perspective; they are of the imagination and create illusions of space, time, and place. The Map, the group visits map collections, reads critical and historic essays, investigates digital maps and territories, and interviews artist, cartographers, and geographers, about their practices. Weekly assignments include several maps per week--fanciful, conceptual, and practical.

Cross-Listed as: SART 17.03

Distributive: Dist:ART

**FILM 48.02 - Video Art**

Instructor: M. Flanagan

This theory/practice studio course explores the medium of video as an art form. Through a survey of historical and contemporary works, students will examine how history, access, culture and technological shifts have influenced and changed how artists work with the moving image and time-based media. From early portable video rigs and live video to the use of animation, netart, streaming video, and memes, the course will unpack role that film, video, sound, writing, performance, abstraction, installation, structure, streaming and narrative forms have played in their work. Students create individual video projects to develop their artistic voice and point of view; they engage with properties that distinguish video art practices while completing a series of creative experiments in order to develop a personal media vocabulary. Students will use video art to expand our understanding of time, space, sound, representation, and narrative.

Cross-Listed as: SART 17.20

Distributive: Dist:ART

**FILM 48.03 - Data and Bodies**

Instructor: J. Wernimont

In this course we will take a multi-modal approach to understanding relationships between “datafication” and human bodies. Today’s “Datafication” is a process of transforming diverse processes, qualities, actions and phenomena into forms that are machine-readable by digital technologies, but the act of turning humans and human bodies into quanta of information has a long history. We will be using art, new media, history, information science, and more to think through the impact that datafication has on how we understand ourselves and others. Particular attention will be paid to the ways in which data has historically been used in racializing and gendering ways, and the role that quantification of people has been integral to the development of the Western nation-state.

Cross-Listed as: WGSS 57.01

Distributive: Dist:SOC

**FILM 48.04 - Social Justice and Computing**

Instructor: J. Wernimont

This course draws on feminist and queer scholarship to examine the intricate relationship between datafication, ubiquitous computing, and social justice, highlighting the politics and impacts of data-driven processes and big data on human lives. One of the key highlights of WGSS engagements with computing history is the focus on the politics and impacts of data-driven processes and big data on human lives. The course will provide a brief introduction to histories of computing and data-driven practices within the Anglo-American tradition, including discussions of the roles that ethics and biopolitics play within these histories. We will explore ways that privacy/security, algorithmic processes, computational environmental impacts, and design have exploited the most vulnerable while increasing affordances for the most privileged. We will also spend significant time learning about new data/computational justice initiatives and develop a robust understanding of how social justice issues like prison abolition, climate change, and equitable health outcomes are at the core of understanding computational cultures. No Computer Science or Data Science background is required, but the course will entail learning about some of the technical history within both fields. Similarly, there are no WGSS prerequisites for the course but students will be responsibly for learning about anti-racist feminist and queer methods and insights.

Cross-Listed as: WGSS 66.02

Distributive: Dist:SOC

**FILM 49 - Practicum in Digital Culture and New Media Technologies**

This course offers students the opportunity to combine critical study with the practice of new media design. This course explores how innovative games are created and what elements go into the design of a good play experience. Games, be they PC games, cell phone games, or locative games, provide a versatile platform for media designers. During the course, students will explore the range of options open to the game designer in theory-practice sessions. Students study the process of making games while developing actual game ideas, prototyping, play-testing, and documenting original, innovative game plans within a master design document.

Cross-Listed as: ENGL 060 SART 017
Distributive: Dist:ART

**FILM 49.02 - Black Theatre & Storytelling Workshop in XR: Reimagining The Purple Flower (1928)**

Instructor: M. White Ndounou

Recognizing the intrinsic value of Black lives and Black storytelling across media platforms, this course will explore the staging of Black theatre texts in virtual reality (VR) and related XR technology. Participants will explore VR technology at the intersection of Black cultural storytelling through the performance of monologues and scenes as well as design/tech, music and movement culminating into a pilot production of Marita Bonner’s *The Purple Flower* (1928), a non-realistic, one-act play that pushes the boundaries of theatrical staging. No prior experience or prerequisites required.

Cross-Listed as: AAAS 31.90 THEA 10.51

Distributive: Dist:ART; WCult:CI

**FILM 50.01 - Cinematic Mirrors: Reflexivity and Authorship in Global Film History**

This course investigates a trend in modernist and postmodernist cinema of reflexive films or *metafilms*: films foregrounding the medium through themes, techniques, style, and formal methods that call attention to the artificiality of cinema. How authorship and the concept of the “auteur” affects production and reception of these films, how different national and political contexts impact their production, and how compatible metafilms are with mainstream commercial practice, are among the questions explored in the course.

Distributive: Dist:INT or ART

**FILM 50.02 - Race, Media, Celebrity**

Instructor: Monk-Payton

How is fame understood through racial difference? This course explores the dynamic terrain of contemporary celebrity culture as it intersects with race. Looking across a range of media formats (music, television, and digital media) we will examine the construction of black celebrity from Barack Obama to Beyoncé. We will engage with the aesthetics and politics of black celebrity visibility, paying close attention to issues of gender, sexuality, and class. Topics considered include celebrity performance, scandal, and fandom in U.S. public and popular culture.

Cross-Listed as: AAAS 80.07

Distributive: Dist:ART; WCult:CI

**FILM 50.03 - Topics in Film Theory: Exploring the Archive**

Instructor: M. Williams

This course will introduce students to new capacities for archival research and explore new directions of archival scholarship regarding film, television, and media history. Inspired by the turn to “preservation plus access” that characterizes many media archives today, this course will provide a set of perspectives from archivists, scholars, and film/video makers regarding new modalities of textual collections, availability, and delivery that promise to deepen media studies as a set of interdisciplinary research and production practices.

Distributive: Dist:ART; WCult:CI

**FILM 50.04 - Video Games and the Meaning of Life**

Instructor: W. Cheng

Video Games and the Meaning of Life is an interdisciplinary course that explores the modern human condition through the stories, designs, and soundscapes of digital games—from the perils of obedience (Hannah Arendt and *The Stanley Parable*) to the metaphors of illness (Susan Sontag and *That Dragon, Cancer*), from the deathless dreams of pacifism (*Undertale*) to the transnational rise of today’s billion-dollar e-Sports industry (*League of Legends*). All students are welcome; no gaming or musical experience needed.

Cross-Listed as: COLT 40.07 MUS 046

Distributive: Dist:TMV; WCult:CI

**FILM 51 - Game Design Studio**

Instructor: M. Flanagan

This course explores how innovative games are created and what elements go into the design of a good play experience. Games, be they console, networked, mobile, board, or pervasive, provide a versatile platform for design thinking and media practice. During the course, students create a host of game prototypes that address social issues. Students study the process of making games while developing actual game ideas, prototyping, play-testing, and documenting original, innovative game plans in a design journal.

Distributive: Dist:TAS

**FILM 80 - Independent Study**

This course is designed to enable qualified upperclass students to engage in independent study in film under the direction of a member of the Department. A student should consult with the faculty member with whom he or she wishes to work as far in advance as possible. A proposal for any independent project must be submitted by the appropriate deadline in the term immediately preceding the term in which the independent study is to be pursued. Permission of instructor required. The staff.

**FILM 93 - Major Project**

This course, limited to Film and Media Studies majors or as part of a modified major, involves an individual project
in some aspect of film and television history, theory or practice. The subject of the project, the term, and the hours are to be arranged. Each project must be directed by a faculty member of the Department. The approval of the faculty member and the Chair must be secured in advance, not later than the term immediately preceding the term in which the project is to be undertaken. This is a two term project.

Students are awarded one course credit for successful completion of this course at the end of the second term of work. Students register for FILM-093 and receive a grade of “ON” (ongoing) at the end of the term. Students do not register for the subsequent term. A final grade will replace the “ON” at the end of the subsequent term at which time the coursework must be completed.

FILM 95 - Honors Project I

A thesis, screenplay, or film production written under the supervision of a member of the Film and Media Studies Department. This course must be elected by all honors candidates. Permission of the Film and Media Studies Faculty required. Honors Projects are considered to be two-term projects. Students must register for each of the two terms to receive the Honors designation.

Students are awarded one course credit for successful completion of this course at the end of the second term of study. Students subsequently register for FILM 96, and continue with their coursework into a second term. A final grade will replace the “ON” for both this course and FILM 96 upon completion FILM 96.

FILM 96 - Honors Project II

A thesis, screenplay, or film production written under the supervision of a member of the Film and Media Studies Department. This course must be elected by all honors candidates. Permission of the Film and Media Studies Faculty required. Honors Projects are considered to be two-term projects. Students must register for each of the two terms to receive the Honors designation.

Students are awarded one course credit for successful completion of this course. Students who have registered for FILM 95 register for this course and continue with their coursework. A final grade will replace the “ON” for both FILM 95 and this course upon completion of this.

French and Italian Languages and Literatures

Chair: David LaGuardia


To view French courses, click here (p. 360).
To view French and Italian in Translation courses, click here. (p. 372)
To view Italian courses, click here (p. 375).

 Majors

Five types of major are available to the student. All programs are designed individually by the student with the help of a faculty advisor of his or her choosing within the Department. Major programs may be organized historically, around a genre (like poetry, drama, or prose fiction), or around a period concept or movement (such as the Enlightenment, Baroque, Classicism and Romanticism, or Existentialism). Major programs normally include at least one term of study in France or Italy. Some courses on the L.S.A., L.S.A.+ and F.S.P. count towards the minor and/or major; for more information, see section titled ‘Foreign Study’. Whether students have an individual advisor or not, all major plans and subsequent changes must be approved by the French or Italian Major Advisor.

I. Major in French. Prerequisite for the major: FREN 8.

The French Major consists of ten (minimum) or more courses above the level of FREN 8, excluding FREN 11 and FREN 15. Each major must include a FREN 10 (prerequisite for all upper-level courses), (1) either FREN 20 or FREN 21; (2) either FREN 22 or FREN 23; and (3) either FREN 24 or FREN 25 (to be completed by the end of the junior year). FREN 10 and FREN 12 taken on the L.S.A., L.S.A.+ and F.S.P. count towards the minor or Existentialism). Major programs normally include at least one term of study in France or Italy. Some courses on the L.S.A., L.S.A.+ and F.S.P. count towards the minor and/or major; for more information, see section titled ‘Foreign Study’. Whether students have an individual advisor or not, all major plans and subsequent changes must be approved by the French or Italian Major Advisor.

II. Major in Italian. Prerequisite for the major: ITAL 8 through the Italian L.S.A. or L.S.A.+ or ITAL 9 on
A. Course requirements for the major:

1. 8 courses numbered ITAL 10 or above, excluding ITAL 11 (see the exception below in 3c.)
2. 5 of the 8 must be numbered above ITAL 12.
3. 3 of the 8 may be numbered ITAL 12 or below.
   a) ITAL 10, the prerequisite for all upper-level courses, is required for the major and may be taken on campus or on the L.S.A.+. With the approval of the Italian Major Advisor, ITAL 10 may be counted toward the major twice, provided the course topics are different.
   b) Along with ITAL 10 on the L.S.A.+, ITAL 12 taken on the L.S.A. may count toward the major.
   c) If ITAL 9 is taken on campus and ITAL 8 is taken on the L.S.A. or L.S.A.+, ITAL 8 will count as fulfilling the prerequisite for the major and ITAL 9 may count toward the major.

4. Of the 5 of the 8 courses required for the major that must be numbered above ITAL 12:
   a) At least two must be courses from the pre-1800 period (ITAL 21, ITAL 22, ITAL 23).
   b) At least two courses must be from the post-1800 period (ITAL 15, ITAL 24, ITAL 25, FRIT 35, FRIT 93).
   c) ITAL 27 and FRIT 37 are topics courses and may be counted either toward the pre-1800 or post-1800 requirement, depending on the topic.
   d) FRIT and ITAL courses taught in English (FRIT 33, FRIT 34, FRIT 35, FRIT 37, FRIT 93) may count toward the major if the student attends a weekly x-hour and does the reading and all of the written work in Italian.

B. Senior culmination in the major:

1. Majors must complete a culminating activity. Three options are available for the culminating activity, all of which include an oral presentation of the completed project. For the culminating experience, students may:
   a) Take ITAL 88: Senior Independent Reading and Research, in which they are required to write a critical or research paper of at least 20 pages; OR
   b) Take an upper-level course numbered ITAL 15 or above, in which they are required to supplement course readings and activities with extra assignments chosen in consultation with the instructor, and to write a critical or research paper of at least 20 pages; OR
   c) Write a senior thesis (see Requirements for the Honors Major in Italian, below).

III. Honors Major in Italian: Prerequisite for the Honors Major: Complete ITAL 8 through the Italian L.S.A. or L.S.A.+ or ITAL 9 on campus.

A. Course requirements for the Honors Major:

1. 9 courses numbered ITAL 10 or above, excluding ITAL 11 (see the exception below in 3c.)
2. 6 of the 9 must be numbered above ITAL 12 and must include ITAL 89 (the thesis).
3. 3 of the 9 may be numbered ITAL 12 or below.
   a) ITAL 10, the prerequisite for all upper level courses, is required for the major and may be taken on campus or on the L.S.A.+. With the approval of the Italian Major Advisor, ITAL 10 may be counted toward the major twice, provided the course topics are different.
   b) Along with ITAL 10 on the L.S.A.+, ITAL 12 taken on the L.S.A. may count toward the major.
   c) If ITAL 9 is taken on campus and ITAL 8 is taken on the L.S.A. or L.S.A.+, ITAL 8 will count as fulfilling the prerequisite for the major and ITAL 9 may count toward the major.

4. Of the 6 of the 9 courses required for the major that must be numbered above ITAL 12:
   a) At least two must be courses from the pre-1800 period (ITAL 21, ITAL 22, ITAL 23, FRIT 33, FRIT 34).
   b) At least two courses must be from the post-1800 period (ITAL 15, ITAL 24, ITAL 25, FRIT 35, FRIT 93).
   c) ITAL 27 and FRIT 37 are topics courses and may be counted either toward the pre-1800 or post-1800 requirement, depending on the topic.
   d) FRIT and ITAL courses taught in English (FRIT 33, FRIT 34, FRIT 35, FRIT 37, FRIT 93) may count toward the major if the student attends a weekly x-hour and does the reading and all of the written work in Italian.
   e) ITAL 88 and ITAL 89 must be taken in the fall and winter of senior year, or, alternatively, in the winter and spring. ITAL 89 is required for the thesis and must be taken in senior year.

B. Thesis:

1. Identify and contact a potential faculty thesis advisor and submit the thesis proposal to the advisor by June 1 of the junior year. In the proposal, provide:
   a) The topic
   b) A brief bibliography of summer research readings.

2. Enroll in ITAL 88 (p. 381) in the fall or winter term of the senior year.
3. Enroll in ITAL 89 in the winter or spring terms of the senior year.
4. Submit final thesis to the thesis advisor by May 8 in the senior year.
5. Provide public oral presentation by May 22 in the senior year.
6. Submit three bound copies of the thesis to the
IV. Major in Romance Languages. Prerequisite for the major: The appropriate prerequisite course in each of the two languages studied.

Includes two of the principal Romance languages (French, Italian, Spanish, Portuguese). Majors will be required to take ten major-level courses, six of which shall be selected from the primary language, and four from the secondary language. If the primary language is French, the six courses must include FREN 10 and one course from FREN 22, FREN 23, FREN 24, FREN 25 (to be completed by the end of junior year). FREN 10 and FREN 12 taken on the F.S.P. may count toward the major. During their senior year, as their culminating activity, Romance Language majors (whose primary language is French) must take either FREN 78: Senior Major Workshop or, with special permission, an upper-level French course (numbered FREN 40 or above). Students taking an upper-level French course as their culminating experience are required to supplement the regular reading with extra materials chosen in consultation with the instructor, and to write a research or critical paper of at least twenty pages. If the primary language is Italian, the six courses must include ITAL 10, at least one course from the pre-1800 period, and at least one course from the post-1800 period. Two of the Italian L.S.A.+ courses (ITAL 10 and ITAL 12) may count toward the major. During their senior year, as their culminating activity, Romance Language majors (whose primary language is Italian) must take either ITAL 88: Senior Independent Reading and Research or an upper-level Italian course as their culminating activity. Students taking an upper-level Italian course as their culminating experience are required to supplement the regular reading with extra materials chosen in consultation with the instructor, and to write a research or critical paper of at least twenty pages. Italian culminating experiences must include a public presentation. The major plan must be approved by the Italian Major Advisor.

VI. Major in Italian Studies. Prerequisite for the major: Complete ITAL 8 through the Italian L.S.A. or L.S.A.+ or ITAL 9 on campus.

The Italian Studies Major consists of ten courses, with a minimum of six selected from ITAL 10 and above, excluding ITAL 11, and from one to four from appropriate major-level courses offered by other departments or programs. Two of the Italian L.S.A.+ courses (ITAL 10 and ITAL 12) may count toward the major. The Italian courses must include ITAL 10, at least one course from the pre-1800 period, and at least one course from the post-1800 period. During their senior year, as their culminating experience, Italian Studies Majors must take either ITAL 88: Senior Independent Reading and Research or an upper-level Italian course (numbered ITAL 21 or above). Students taking an upper-level Italian course as their culminating experience are required to supplement the regular reading with extra materials chosen in consultation with the instructor, and to write a research or critical paper of at least twenty pages. All culminating experiences must include a public presentation. The major plan must be approved by the Italian Major Advisor.

French or Italian as a Modifier. If a student wishes to modify a major in another department with French or Italian and wishes the modifying language to be entered on his or her permanent record, the major program must be approved by the Department of French and Italian, as well as by the primary department. The modifying component, which must have some coherence with the primary major, may be organized historically, around a genre (like poetry, drama, or prose fiction), or around a period concept or movement (such as the Enlightenment, Baroque, Classicism and Romanticism, or Existentialism), and must consist of major-level courses.

Minors

I. Minor in French. Prerequisite for the minor: FREN 8.

The minor consists of six courses. The minor must include: FREN 10; one of the following: FREN 21, FREN 22, FREN 23, FREN 24, FREN 25; and three other advanced courses above the level of FREN 10, excluding FREN 11 and FREN 15. Among the courses taken on campus, at least one course must treat literature from before the nineteenth century, and at least one course must treat
literature from the nineteenth century to the present. FREN 6 taken on the L.S.A. may count toward the minor. Two of the courses offered on the L.S.A.+ (FREN 10 and FREN 12) and three of the F.S.P. (FREN 29, FREN 30, FREN 31 (p. 365)) count toward the minor. FREN 10 may be counted toward the minor only once. FRIT courses taught in English (see French and Italian in Translation) may count toward the minor if the student attends a weekly x-hour and does the reading and all of the written work in French. A maximum of one transfer course may count toward the minor. The French minor plan must be approved by the French Minor Advisor.

II. Minor in Italian. Prerequisite for the minor: ITAL 8 taken on the Italian L.S.A. or L.S.A.+ or ITAL 9 taken on campus.

A. Course requirements for the minor:
1. 6 courses numbered ITAL 10 or above, excluding ITAL 11 (see exceptions below in 3c and 3d).
2. 3 of the 6 must be numbered above ITAL 12.
3. 3 of the 6 may be numbered ITAL 12 or below.

a) ITAL 10, the prerequisite for all upper level courses, is required for the minor and may be taken on campus or on the L.S.A.+ With the approval of the Italian Minor Advisor, ITAL 10 may be counted toward the minor twice, provided the course topics are different.
b) Along with ITAL 10 on the LSA+, ITAL 12 taken on the L.S.A.+ may count toward the minor.
c) If ITAL 9 is taken on campus and ITAL 8 is taken on the L.S.A. or L.S.A.+, ITAL 8 will count as fulfilling the prerequisite for the minor and ITAL 9 may count toward the minor.
d) ITAL 6 taken on the Italian L.S.A. may count toward the minor.

4. Of the 3 of the 6 courses required for the minor that must be numbered above ITAL 12:

a) One must be a course from the pre-1800 period (ITAL 21, ITAL 22, ITAL 23).
b) One must be a course from the post-1800 period (ITAL 15, ITAL 24, ITAL 25, FRIT 35, FRIT 93).
c) ITAL 27 and FRIT 37 are topics courses and may be counted either toward the pre-1800 or post-1800 requirement, depending on the topic.
d) FRIT and Italian courses taught in English (FRIT 33, FRIT 34, FRIT 35, FRIT 37, FRIT 93) may count toward the minor if the student attends a weekly x-hour and does the reading and all written work in Italian.

Transfer Credit

Transfer credit is not granted for French or Italian courses taken at other colleges and universities before matriculation at Dartmouth. The Department Chair may authorize exceptions for upper-level French or Italian courses for students transferring from another school after their first year. Transfer credit is never granted for French 1, 2 or 3 or Italian 1, 2 or 3.

One transfer course may be counted toward the minor in French or Italian, while two transfer courses may count toward the majors. These courses are accepted pending the registrar's and the department's approval. Please see the registrar's guidelines and deadlines for transfer courses.

Honors Program

Please refer to the ORC for general, College-wide requirements for admission to the Honors Program. In any of the five types of major offered by the Department of French and Italian, a student who wishes to write an honors thesis must give evidence of exceptional ability and interest in the major field by having a GPA of 3.5 or better. The thesis topic and the individual faculty advisor for the thesis must be determined during the student’s junior year, with a one-page thesis proposal due to both the advisor and the department chair, by June 1st.

Honors Thesis in French - Students in their senior year writing an honors thesis in French will take FREN 87 in the fall, FREN 78: Senior Major Workshop in the winter, and FREN 89 in the spring. FREN 87 and FREN 89 are courses specifically and entirely devoted to thesis work. All three courses (FREN 87, FREN 78, and FREN 89) count toward the honors major. The honors thesis in French, French Studies, or Romance Studies with a principal concentration in French must be written in French.

Honors Thesis in Italian - Students in their senior year writing an honors thesis in Italian will take ITAL 88 in the fall and ITAL 89 in the winter, or, alternatively, ITAL 88 in the winter and ITAL 89 in the spring. Both ITAL 88 and ITAL 89 count toward the honors major. The honors thesis in Italian, Italian Studies or Romance Studies with a principal concentration in Italian must be written in Italian.

Upon student submission of a thesis, department faculty will determine whether the student will graduate without honors in the major, with an Honors designation, or with a designation of High Honors.

Language Study Abroad

French L.S.A./L.S.A.+ - Spring—Toulouse, France
French L.S.A.+ - Winter —Toulouse, France
Italian L.S.A./L.S.A.+ - Fall, Winter, Spring (2021-2022)—Rome, Italy
Italian Full Immersion Rome Experience (F.I.R.E.) - Summer (2022) - Rome, Italy

Prerequisite: For French L.S.A., FREN 2 or FREN 11 with the grade of B or better, or equivalent preparation, and acceptance into the program; for French L.S.A.+, FREN 3 with the grade of B or better, or equivalent preparation, and acceptance into the program; for Italian L.S.A., ITAL 2 or ITAL 11 with the grade of B or better, or equivalent preparation; for Italian L.S.A.+, ITAL 3 with the grade of B or better, or equivalent preparation, and acceptance into the program; for Italian F.I.R.E., no course prerequisite except acceptance into the program. The preparatory course, when applicable, must be taken within six months of departure.

Students in the L.S.A. and L.S.A.+ live with families. Students in F.I.R.E. live in student apartments. Students in all three programs take courses in language, civilization, and literature taught by local instructors and the Dartmouth faculty member in residence.

Upon successful completion of the L.S.A. program in France, credit will be awarded for FREN 3, FREN 6 and FREN 8. FREN 3 completes the language requirement. FREN 8 completes the prerequisite for the major or the minor. FREN 6 counts toward the minor.

Upon successful completion of the L.S.A.+ program in France, credit will be awarded for FREN 8, FREN 10, and FREN 12. FREN 8 completes the prerequisite for the major or the minor. FREN 10 and FREN 12 apply to the major or the minor.

Upon successful completion of the Italian L.S.A. program, credit will be awarded for ITAL 3, ITAL 6 and ITAL 8. ITAL 3 completes the language requirement. ITAL 8 completes the prerequisite for the major or the minor.

Upon successful completion of the Italian L.S.A.+ program, credit will be awarded for ITAL 8, ITAL 10 and ITAL 12. ITAL 8 completes the prerequisites for the major or the minor. ITAL 10 and ITAL 12 apply to the major and the minor.

Upon successful completion of the Italian F.I.R.E. program, credit will be awarded for ITAL 1, ITAL 2, and ITAL 4, which complete the language requirement.

Students will be accepted on the basis of their application forms and letters of reference; actual participation in the program is contingent upon the maintenance of satisfactory academic standing and conduct, and compliance with orientation procedures. L.S.A. or F.I.R.E. may not be taken during the student’s senior year.

For application and deadline information, consult the Off-Campus Programs Office.

Foreign Study

French F.S.P. - Winter, Spring—Paris, France

French: Prerequisite: Acceptance into the program and in any order:

Satisfactory completion of the L.S.A.+ program in France during the term immediately preceding the Foreign Study term OR

Students must complete FREN 8 (or have been exempted from FREN 8 during Orientation week) with a grade of B or better.

Students must complete FREN 10 (or have received credit for FREN 10 during Orientation week) with a grade of B or better. FREN 10 should be taken as immediately prior to the term in Paris as scheduling allows.

FREN 8 and FREN 10 may be completed on the L.S.A.+

Students who have received exemption from FREN 8 AND credit for FREN 10 during Orientation Week must take at least one French course at Dartmouth from among courses FREN 10 through FREN 25, excluding FREN 15, with a grade of B or better, prior to participation in the Foreign Study Program.

Prerequisite courses for the Foreign Study Program must not be taken NRO.

For application and deadline information, consult the Off-Campus Programs Office.

FRENCH CLUB

Students interested in French are invited to join the French Club, Le Cercle français. It is a cultural as well as social organization which meets weekly. Membership is open to all students whether or not enrolled in French courses. The program includes talks in French, informal conversation groups, films, and dramatic productions.

ITALIAN CLUB

II Circolo Italiano is open to all students interested in Italian language and culture. Weekly gatherings with conversation, music, and refreshments. Special events include films, suppers, and out-of-town excursions.

FREN - French Courses
FRIT - French and Italian in Translation Courses
ITAL - Italian Courses
**FREN - French Courses**

*To view French requirements, click here* (p. 355).

**FREN 1 - Introductory French I**

Instructor: See department website

An introduction to French as a spoken and written language. The work includes regular practice in class and scheduled drill-sessions in understanding and using the spoken language. Written exercises and elementary reading materials serve for vocabulary building and discussion. Never serves in partial satisfaction of the Distributive or World Culture Requirements.

**FREN 2 - Introductory French II**

Instructor: See department website

Rapid review and continued study of the fundamentals of French, with intensive work in vocabulary building. More advanced practice, in classroom and drill-sessions in the use of the spoken language. Open to students by qualifying test or to students who have passed French 1. Never serves in partial satisfaction of the Distributive or World Culture Requirements.

Prerequisite: FREN 1 or qualifying placement

**FREN 3 - Introductory French III**

Instructor: See department website

Given on-campus as the final course in the required sequence and off-campus as part of the L.S.A. curriculum, this course is designed to develop reading, writing, and speaking skills, with emphasis on expansion of vocabulary and reinforcement of grammatical structures. Some discussion of texts and films of literary or cultural interest. Frequent oral and written assignments and tests, both on-campus and off, plus daily drills when taken on-campus. Open to students by qualifying test or to students who have passed French 2 or French 11. Never serves in partial satisfaction of the Distributive or World Culture Requirements.

Prerequisite: FREN 2, French 11, or qualifying placement

**FREN 5 - Language Study Abroad: Aspects of French Civilization**

Instructor: See department website

A course in French civilization taught in the context of the Language Study Abroad program. Lectures by local faculty concentrate on French political, social, economic, and religious institutions, and their historical development. Independent or accompanied visits to sites are an integral part of the course. Assigned work may include short readings, oral presentations and papers, and a final examination.

Prerequisite: Acceptance into the Dartmouth Language Study Abroad Program.

Distributive: WCult:W

**FREN 7 - First-Year Seminars in French Literature**

Instructor: Sanders

**FREN 8 - Exploring French Culture and Language**

Instructor: See department website

Practice in the active use of the language combined with an introduction to major aspects of French society. Each week students will write papers and participate in discussions based on books, articles, and films emphasizing social and historical concepts.

Prerequisite: FREN 3, or equivalent preparation.

Distributive: Dist:SOC; WCult:W

**FREN 9 - Language Study Abroad: Readings in French Literature**

Instructor: See department website

An introductory course, offered in the context of the Language Study Abroad program, dealing with major figures, themes, or genres of French literature. Some areas of concern are critical reading and analysis, style, and historical and social perspectives. Assigned work may include independent reading and analysis, frequent short papers, and examinations. Taught by Dartmouth faculty.

Prerequisite: Acceptance into the Dartmouth Language Study Abroad Program.

Distributive: Dist:LIT; WCult:W

**FREN 10 - Introduction to French Literature: Masterworks and Great Issues**

Instructor: See department website

These courses, offered each term by various members of the Department, deal in major figures, themes, or issues of modern French literature, and of those earlier periods which have particular relevance to today's world. Techniques of critical reading and interpretation are studied as an approach to these topics, which reflect the interests of the teaching staff.

Prerequisite: French 8 or permission of the individual instructor or acceptance into the Dartmouth Advanced Language Study Abroad Program.

Distributive: Dist:LIT; WCult:W

**FREN 10.02 - The Heroic Heart**

Instructor: Tarnowski
If exceptions prove the rule, what do heroes tell us about their societies? Whether motivated by political conviction, social ambition, religious faith, or esthetic vision, heroes across the ages often reflect, and sometimes confound, society's aspirations. A cast of characters - friends, helpmeets, enemies, paramours - is always necessary to enhancing the hero's singularity. Authors read in this course may include Chrétien de Troyes, Corneille, Diderot, Musset, Stendhal, Céline and Sartre.

Prerequisite: French 8 or permission of the individual instructor

Distributive: Dist:LIT; WCult:W

**FREN 10.03 - Invitation au Voyage**

In this course we will examine travel narratives as well as literary works that inspire us to travel physically and metaphorically. How do words express as well as transform the traveler's experience? How do we engage with other worlds through literature? How do texts create other worlds? We will examine texts and their contexts from the Middle Ages to the present.

Prerequisite: French 8 or permission of the individual instructor

Distributive: Dist:LIT; WCult:W

**FREN 10.06 - The Anatomy of Passion**

Instructor: Walker

A study of passion in French and francophone literature through the ages, as seen through texts and films. Readings may include works by Sceve, Corneille, Laclos, Flaubert, Condé.

Prerequisite: French 8 or permission of the individual instructor

Distributive: Dist:LIT; WCult:W

**FREN 10.08 - Living in Paris/Habiter Paris**

Instructor: LaGuardia

Living in Paris has generated an enormous amount of writing since the middle ages. This course will examine diverse narrative, poetic, propagandistic, memorial, historical, and anthropological texts that describe the difficulties and the joys of living in the French capital. Works by Père, L’Estoile, Prévost, Baudelaire, Mercier, Sue, Balzac, Augé, Modiano, Colette, Barthes, Gary, Duras, and others.

Prerequisite: French 8 or permission of the individual instructor

Distributive: Dist:LIT; WCult:W

**FREN 10.10 - Du mal/On Evil**

Instructor: St. Clair

This course proposes a look at “evil” in French literature, art, and film (1665-1966). What does “evil” designate? A concept, or an ethical category? A limit of the thinkable and sayable? The proof of human freedom? Is there a semiotics of evil? Can it be represented, or does its excess necessarily elude our attempts to pin it down (as when something “hurts,” or “fait mal”)? What is its relationship to the violence of history (from the death of God to the ravages of time passing by)? How does literature challenge us to think about what it means to be a witness to evil? Plays by Molière; novels, short-stories or essays by Voltaire, Balzac, Maupassant, Sartre; poems by Baudelaire, Musset, Verlaine, Hugo, Louise Michel; paintings and caricature by Daumier, Caillebotte, Manet, Meissonnier. Film by Gillo Pontecorvo (La Bataille d’Alger). Excerpts of readings from Hannah Arendt, Terry Eagleton, Georges Bataille, Raymond Williams, Sigmund Freud, Cathy Caruth.

Prerequisite: French 8 or permission of the individual instructor

Distributive: Dist:LIT; WCult:W

**FREN 10.11 - On Monsters and Monstrosity**

Instructor: Sanders

Androids, werewolves and golems are not simply the stuff of modern fantasy. Human-like creatures populate novels, poems and philosophical texts from ages past. Our course will trace the evolution of artificial and monstrous life, from medieval werewolves, through 17th and 18th-century automatons, to contemporary androids and clones. Throughout the trimester, we will search for reasons to imagine human otherness, and reflect on how these creatures offer insights into our understanding of

Prerequisite: French 8 or permission of the individual instructor

Distributive: Dist:LIT; WCult:W

**FREN 10.12 - The Other’s Gaze**

Everyone is somebody’s Other. How do French and Francophone authors write about the Other? How does that view evolve? This course will explore the theme of Otherness from the 16th to the 21st century, and help you develop a critical perspective through the analysis of texts drawn from diverse genres: poetry, fiction, plays, essays, films, and lyrics. Readings may include works by Montaigne, Molière, Montesquieu, Gouges, Maupassant, Lévi-Strauss, Camus, Césaire, Duras, Chedid, Guène, and others.

Prerequisite: French 8 or permission of the individual instructor

Distributive: Dist:LIT; WCult:W
FREN 10.13 - Games People Play
Instructor: Wine
For both adults and children, fun and games can be serious business. This course explores the cultural and social functions of games and play as depicted in literature and film. We will be especially interested in differences in the way the French and Americans play, focusing on notions like fun, playfulness, and humor. Readings may include works by Scudéry, Molière, Marivaux, Maupassant, and Pagnol.
Prerequisite: French 8 or permission of the individual instructor
Distributive: Dist:LIT; WCult:W

FREN 10.14 - Le sentiment amoureux
An ‘ingenu’ lover’s introduction to the origins of the ‘sentiment amoureux’: French literature explained through love, from the Middle Ages to the modern moment, in Tristan et Iseult, and in poems, plays, short stories and novels by Louise Labé, Racine, Voltaire, Flaubert, and Houellebecq.
Prerequisite: French 8 or the permission of the individual instructor.
Distributive: Dist:LIT; WCult:W

FREN 10.15 - Literature and Images
Novels, tales and poems create images that enter our collective memory and link the text to its visual representation. We will explore connections between text and image in works from the sixteenth through the twenty-first centuries: engravings, paintings, photography, film and television have been inspired by, and in turn acted as inspiration for, literature in a variety of genres. Authors and artists may include Rabelais and Doré, Watteau and Verlaine, Modiano and Cartier-Bresson.
Prerequisite: French 8 or permission of the individual instructor
Distributive: Dist:LIT; WCult:W

FREN 10.16 - The Feeling of Love
An introduction to the origins of the feeling of love: French literature explained through love, from the Middle Ages to the modern moment, in Tristan et Iseut, and in poems, plays, essays, short stories, and novels by Louise Labé, Montaigne, Du Bellay, Ronsard, Racine, Marivaux, Rousseau, Voltaire, Baudelaire, Rimbaud, Flaubert, Houellebecq.
Prerequisite: French 8 or permission of the individual instructor
Distributive: Dist:LIT; WCult:W

FREN 10.17 - Saints, Martyrs, Demons
Instructor: Hollister
Many of French fiction’s most iconic characters have been marked as holy or unholy, saintly or damned. This course will ask what the famous saints, martyrs and demons of French cultural history have to say about morality, politics, and social issues (notably class, gender, race, and sexuality). Works by Racine, Voltaire, Sade, Diderot, Balzac, Flaubert, Baudelaire, Verlaine, Rimbaud, Apollinaire, Eliard, Aragon, Bataille, Sartre, Barthes, Clouzot, Bresson, Césaire, and Yourcenar.
Prerequisite: French 8 or permission of the individual instructor
Distributive: Dist:LIT; WCult:W

FREN 10.18 - The Medieval Mirror of Ourselves
Perhaps more than any other era, the Middle Ages inspired modern French literature. Things medieval intrigued writers and artists throughout the eighteenth and nineteenth centuries, with interest at its strongest during the nineteenth century's rise in national pride and focus on national origins. But artists and scholars also looked beyond medieval literature to traditions in architecture, interior decoration, and pictorial art. The Middle Ages served as a mirror in which French people contemplated both their identity and their destiny. Present still today throughout France in cities, symbols, churches and documents, the medieval period has continued to solicit our imaginations in the twentieth and twenty-first centuries.
Prerequisite: French 8 or permission of the individual instructor
Distributive: Dist:LIT; WCult:W

FREN 10.19 - A La Recherche du bonheur
Instructor: Beasley
What is happiness? How has this concept changed over the centuries? How has its conception and treatment been influenced by social events, gender, and class? Is there a form of happiness that is particularly French? In this course we will explore such questions using texts from the Middle Ages to the 21st century and study the role that the quest for happiness has played in French culture.
Prerequisite: French 8 or permission of the individual instructor
Distributive: Dist:LIT; WCult:W

FREN 10.20 - Representations of war in French literature and film from the Middle Ages to the present
This course will explore the different ways in which French literature and cinema represent war and its effects from the Middle-Ages to the present. Texts and authors
FREN 11 - Intensive French

Instructor: See department website

This 1-credit course is designed for students who have studied French for one to three years in high school, or those who have been exposed to French through family ties or have spent some time in a Francophone environment. It is also suitable for students with little or no knowledge of the French language, but who have a strong background in another Romance language (i.e., Spanish, Italian, Romanian, Portuguese, Catalan, and also Latin). French 11 is an accelerated course that combines French 1 and 2 in one term, offering an exciting and fast-paced atmosphere in which to learn French. The course will have a web-based component, which, through cultural, grammar and multimedia learning activities, will complement face-to-face work and prepare students for in-class work. Students will learn to talk about familiar events in the present and the past, as well as formulate plans for the future. Weekly cultural videos will situate in context the grammatical content of the course, making it relevant and meaningful. Students will be actively engaged in a variety of creative written and oral activities that will help them develop their language skills. Upon successful completion of this course, students will be able to sign up for French 3 or apply for our French LSAs in Lyon or Toulouse. With the goal of facilitating the acquisition of the target language, this course will be conducted entirely in French.

Prerequisite: French 8 or permission of the instructor

Distributive: Dist:LIT; WCult:W

FREN 12 - Advanced Writing and Speaking in French

Instructor: See department website

In this course, students will learn to recognize and reproduce a broad range of linguistic registers and structures in order to achieve competence in French grammar, phonetics, vocabulary, and oral and written expression. Aided by the analysis of newspaper articles, letters, political orations, screenplays, interviews, and short stories, students will analyze, imitate, and produce diverse types and levels of discourse. Course work will entail intensive writing, stylistic analysis, small group discussions, dramatic presentations, and experiential exercises such as conducting interviews, writing business letters, or composing political speeches. Texts by Montesquieu, Danton, Maupassant, Zola, Ionesco, De Gaulle, Yourcenar, Kassovitz, and others.

Prerequisite: Acceptance into the Dartmouth Advanced Language Study Abroad Program.

Distributive: WCult:W

FREN 15 - The Language and Culture of French Business

Instructor: Mosenthal

This course will prepare students to work in a French business environment, while at the same time help them develop a global mindset and intercultural sensitivity. The aim of the course is not only to give students specific vocabulary with an application of language skills to business situations and contexts, but also to analyze how French politics, economic history and culture have resulted in current business practices in France. Students will acquire an in-depth understanding of cultural differences in the world of work between France and the USA. Thus, the impact of this course is not only communicative
FREN 20 - Interpreting French Cultures

Students will acquire the analytical skills to interpret French and Francophone cultures. To prepare students to be "culturally competent," the course will focus on how and why we read signs of culture, whether through the lenses of history, symbols, politics or class and power. We will explore a variety of cultural objects in conjunction with the writings of authors who may include Balibar, Barthes, Baudrillard, Condé, Fanon, Foucault, Le Goff, Nora and Wieviorka.

Prerequisite: A course in the FREN 10 series, or permission of the instructor.

Distributive: Dist:SOC; WCult:W

FREN 20.01 - France and the Culture of Conversation

In this course we will examine the relationship between conversation and French history and culture. We will explore the role of conversation on artistic production and examine its influence on the history of ideas. Conversation was a central tenet of early modern intellectual and textual exchanges through the Enlightenment, and the French salon was the site in which conversation flourished. We will then extend our analysis to the present day. What are the forms conversation has adopted in France today, especially in digital culture? Is there anything about this art and the way that it functions that is still uniquely French?

Prerequisite: A course in the French 10 series or permission of the instructor.

Distributive: Dist:SOC; WCult:W

FREN 20.02 - The Locations of French Culture

Instructor: Hollister

This course proposes to consider the contexts and the constitution of French cultural identities. Specifically, it will explore the pressure points and key subjects that return time and again in discussions of what it means to be French or possess French culture: language; religious identity, republicanism, nationalism; race, class, gender, sexuality; gastronomy; popular culture and high art.

Prerequisite: A course in the French 10 series or permission of the instructor.

Distributive: Dist:SOC; WCult:W

FREN 20.03 - Long Live the Revolution

This course is a study of the French and Haitian Revolutions through cultural artefacts: films, novels, plays, history textbooks, public debates and even video games. Ever since Revolutions ricocheted from the Americas to Europe and back, artists and writers have crafted versions of their legacy in a variety of venues and media. We will begin the term with an overview of the French and Haitian Revolutions. This course, however, is not about the history of these Revolutions. Instead, we will examine how French and Haitian cultural artefacts craft different versions of their founding moment in an attempt to construct Republican identities. During the term, we will encounter Republican identities that are nationalist, egalitarian, communitarian and post-colonial. By comparing the quantity and type of representations between the Haitian and French Revolutions, we will also interrogate how cultural artefacts are constantly re-imagining the past.

Distributive: Dist:INT or LIT; WCult:W
FREN 23 - Introduction to French Literature II: Neoclassicism and the Eighteenth Century
Instructor: See department website
The seventeenth and eighteenth centuries were a dynamic and volatile period characterized on the one hand by the rise to power of the most absolute of all monarchs, the Sun King Louis XIV, symbolized by Versailles, and on the other hand by the French Revolution. Fostered by royal patronage, literature and the arts flourished, yet many writers also used artistic expression to counter this royal power. The period saw the birth of the modern French novel and the development of a rich body of theatrical and philosophical literature. These centuries are recognized as major components of France's collective identity and their influence is still felt in France today. Authors may include Descartes, Corneille, Racine, Molière, Lafayette, Diderot, Rousseau, Voltaire, Graffigny, Beaumarchais and Laclos.
Prerequisite: A course in the FREN 10 series or permission of the instructor.
Distributive: Dist:LIT; WCult:W

FREN 24 - Introduction to French Literature and Culture III: Nineteenth Century
Instructor: See department website
This course examines the nineteenth-century renewal of literary form and vision from the French Revolution to the First World War. We will study the social and historical developments of French culture as they are reflected in various literary genres (narrative, poetry, dramatic theory and practice), literary criticism, philosophy, historiography, and the other arts. Emphasis will be placed on France's growing self-awareness as a nation and on the analysis of aesthetic and intellectual issues represented in the major literary movements of this period including romanticism, realism, symbolism, art for art's sake, naturalism, fin de siècle decadence, and modernism. Readings may include works by such authors as Chateaubriand, de Staël, Stendhal, Hugo, Musset, Sand, Balzac, Baudelaire, Flaubert, Michelet, Zola, and Huysmans.
Prerequisite: A course in the FREN 10 series or permission of the instructor.
Distributive: Dist:LIT; WCult:W

FREN 25 - Introduction to French Literature and Culture IV: Twentieth and Twenty-First Centuries
Instructor: See department website
This course examines the radical transformations of literary form and vision that characterize twentieth-century France with its two World Wars, its colonial conflicts, and the challenges to French identity posed by immigration and globalization. We will use lyric poetry, fiction, drama, autobiography, and film to explore literary movements such as surrealism, existentialism, the new novel, the theater of the absurd and écriture féminine, as well as the recent impact of immigrant and minority writers. Readings and films may include works by Proust, Breton, Colette, Beauvoir, Sartre, Camus, Robbe-Grillet, Duras, Delbo, Cixous, Sebbar, Resnais, Malle, and Kassovitz.
Prerequisite: A course in the FREN 10 series or permission of the instructor.
Distributive: Dist:LIT; WCult:W

FREN 29 - French Civilization: Study Abroad
Instructor: See department website
Studies in such aspects of the cultural heritage as French art, music, and history. Credit for this course is awarded students who have successfully completed the program of the Dartmouth Foreign Study Program at one of its university centers in France.
Prerequisite: acceptance into the Foreign Study Program.
Distributive: Dist:ART; WCult:W

FREN 30 - French Literature: Study Abroad
Instructor: See department website
Credit for this course is awarded students who have successfully completed the program of the Dartmouth Foreign Study Program at one of its university centers in France.
Prerequisite: acceptance into the Foreign Study Program.
Distributive: Dist:LIT; WCult:W

FREN 31 - The French Language: Study Abroad
Instructor: See department website
Credit for this course is awarded students who have successfully completed the program of the Dartmouth Foreign Study Program at one of its university centers in France.
Prerequisite: acceptance into the Foreign Study Program.
Distributive: WCult:W

FREN 35 - The French Language: Introduction to Linguistics and Rhetoric
Instructor: See department website
This course will explore the French language by means of the linguistic analysis of texts. Its purpose is a) to familiarize the student with the constraints and freedoms of the French language as these are revealed by linguistic analysis, and b) to develop the student’s spontaneity of expression. The course will include the study of structural linguistics and recent rhetorical systems such as those of Genette or Riffaterre.
Prerequisite: A course in the FREN 10 series or permission of the instructor.

Distributive: Dist:SOC; WCult:W

FREN 35.03 - Fifty Shades of Language: Finding pleasure in literary constraints
Instructor: See department website

Inspired by disciplined yet playful research on language (authors such as Queneau and Perec), this course will consist of translation and creative writing workshops. Advanced students will improve their linguistic skills and understanding of language registers, fine points of grammar, and stylistic devices, and gain a better appreciation of the subtleties of French and Francophone literature.

Our sources will include fiction, poetry, humor, biographies and newspaper articles.

Prerequisite: A course in the FREN 10 series or permission of the instructor.

FREN 40 - Acting French
Instructor: Sanders

Acting French is a practical approach to French theater and its role in constructing French identity. Throughout the trimester, we will read, analyze, watch and then perform scenes from French plays. By the end of the trimester, we will learn how to interpret theater as a performance, and use that knowledge to perform scenes from plays. Works by Marivaux, Racine, Musset, Beckett, Mnouchkine, and others.

Prerequisite: A course in the FREN 10 series or permission of the instructor.

Distributive: Dist:LIT; WCult:W

FREN 40.02 - French and Francophone Poetry from Baudelaire through Césaire
Instructor: Elhariry

Charles Baudelaire, Arthur Rimbaud, Guillaume Apollinaire, Paul Eluard, André Breton, Paul Valéry, Aimé Césaire, Léon Damas, D.T. Niane and André Chedid are poets of radically different backgrounds connected by abiding preoccupations of a modernist vision. These poets will be studied in order to explore the traditions and counter-traditions of French and Francophone poetry.

Prerequisite: A course in the FREN 10 series or permission of the instructor.

Distributive: Dist:LIT; WCult:W

FREN 40.03 - Récits méditerranéens
Instructor: See department website

In ‘Récits méditerranéens, pourtours mystiques I,’ we will focus on first-person narratives (fictional and non-fictional, fictive and fictionalized) from across the modern Mediterranean Francophone world: Lebanon, Egypt, Algeria, Tunisia and Morocco. We will exhaust the politics of autobiography, autofiction and autoportraiture as we unravel the mystical underpinnings of texts by Tahar Ben Jelloun, Hélène Cixous, Jacques Derrida, Assia Djebar, Edmond Jabès, Abdelkébir Khatibi, Amin Maalouf, Abdelwahab Meddeb, and Salah Stétié.

Prerequisite: A course in the FREN 10 series or permission of the instructor.

Distributive: Dist:LIT; WCult:W

FREN 40.04 - Classical Comedy: Molière
Instructor: Beasley

In this course we will focus on the celebrated French playwright Molière. We will read his works in their seventeenth-century context, analyze how these plays were produced, and study Molière’s impact on French culture today. The final project may consist of a staging of one of Molière’s comedies, depending on student interest.

Prerequisite: A course in the FREN 10 series or permission of instructor.

Distributive: Dist:LIT; WCult:W

FREN 40.05 - Acting French
Instructor: Sanders

Acting French offers a practical approach to French theater. Throughout the trimester, we will read, analyze and then perform scenes from French plays. In this class, you will have an opportunity to bring Figaro to life, or to wait for Godot. By the end of the trimester, we will learn how to interpret theater as a performance, and use that knowledge to put on scenes from plays.

Prerequisite: A course in the FREN 10 series or permission of the instructor.

Distributive: Dist:ART; WCult:W

FREN 40.06 - Selfies: autobiographie, autoportrait, autofiction
Instructor: Kritzman

A study of three forms of writing about the self and their generic distinctions. Autobiography, a practice of self-understanding deals with the construction of one’s life story across time; self-portraiture does not attempt to rejoin the past by the construction of a self that is temporally constructed. The autoportratriat presents a self apprehended in the present of writing through a montage of disparate images. Autofiction, on the other hand, deals with a form of fictionalized autobiography that uses fiction in the
service of the search for self. Subjects to be examined include: rhetoric, politics, history, and gender. Texts: Rousseau, Chateaubriand, Sartre, Beauvoir (autobiographies); Montaigne, Sevigne, Barthes (autoportraits); Colette, Modiano, Ernaux (autofictions).
Prerequisite: A course in the French 10 sequence or permission of the instructor
Distributive: Dist:LIT; WCult:W

FREN 45 - Dartmouth Meets the French Enlightenment
Instructor: Sanders

Can we trace Tri-Kap’s origin to the secret societies, masonic lodges, salons and cafés that arose prior to the French Revolution? This course will trace the migration of texts from France to Dartmouth where 18th-century literary societies - Social Friends (1783), United Fraternity (1786), Phi Beta Kappa (1787), and later Tri-Kap (1842) – read French Enlightenment texts on human rights as well as on the forms of sociability recently developed in France and at Dartmouth.

Prerequisite: A course in the FREN 10 series or permission of the instructor.
Distributive: Dist:TMV; WCult:W

FREN 45.01 - Dartmouth Meets the French Enlightenment
Can we trace Tri-Kap’s origin to the secret societies, masonic lodges, salons and cafés that arose prior to the French Revolution? This course will trace the migration of texts from France to Dartmouth where 18th-century literary societies - Social Friends (1783), United Fraternity (1786), Phi Beta Kappa (1787), and later Tri-Kap (1842) – read French Enlightenment texts on human rights as well as on the forms of sociability recently developed in France and at Dartmouth. Not open to students who have received credit for FREN 045.
Distributive: Dist:TMV; WCult:W

FREN 45.02 - The Art and Influence of Conversation
Instructor: See department website

We will resurrect the conversations among men and women in seventeenth and eighteenth-century France. Questions include: What is the relationship between the individual and society? What roles do literature and philosophy play? What are women's and men's "natural" functions in society? What effect does contact with different cultures have on a society or the individual? Authors may include: Descartes, Corneille, Sévigné, Lafayette, Voltaire, Rousseau, Diderot, de Gouges, Montesquieu, and Graffigny, among others.
Distributive: Dist:LIT; WCult:W

FREN 45.03 - De la motérialité : the Body in 19th-century French Literature
Instructor: See department website

At first glance a simple thing, seen “à la loupe” the body reveals itself a complex location where our links to our selves, the world, and our unavoidable otherness are situated and complicated. This course proposes a critical study of an omnipresent object/subject in the the poetry, prose, and visual texts of nineteenth-century France to think about the sorts of claims we can make about the body, and the sorts of claims they make upon us. Readings from poetry, visual texts, prose, from Romanticism to Decadence; Manet, Courbet, Caillebotte, revolutionary caricature. Excerpts of Foucault, Marx, Freud, Merleau-Ponty, Elisabeth Grosz, Jacques Rancière, Jean-Luc Nancy, Didi-Huberman

Prerequisite: A course in the FREN 10 series or permission of the instructor.
Distributive: Dist:LIT; WCult:W

FREN 45.04 - What is the Contemporary?
Instructor: See department website

This course will examine how recent novels, films, and critical texts engage with the cultural and political climate of post-1980 France. Subjects of inquiry will include: postmodernism, minimalism, “post-exoticism,” nationalism, biopolitics, “spectrality,” terrorism and violence, gender and class. Works may include novels by Houellebecq, Echenoz, Toussaint, Salavayre, Ernaux, Darrieussecq, Volodine, Michon; films by Carax, Assayas, Hanek; critical readings by Agamben, Derrida, Ruffel, Viart, Millet, Jameson.

Prerequisite: A course in the French 10 series or permission of the instructor.
Distributive: Dist:LIT; WCult:W

FREN 45.05 - Between Revolution and Oblivion: The Politics of Literature in Nineteenth-Century France
Instructor: See department website

This course seeks to explore the hypothesis that nineteenth-century French literature and other modes of cultural and aesthetic production are situated against the backdrop of the massive political upheavals of the century, and grapple especially with the problems of contested memories and narratives of a revolutionary past that refuses to pass. In this course, then, we will link and think 19thC literature to politics and history, interpreting a variety of nineteenth-century texts, from poems to short stories, novels, paintings and revolutionary caricatures, with/against their cultural, political, historical, and esthetic contexts.
Prerequisite: A course in the French 10 series or approval of the instructor.

Distributive: Dist:LIT; WCult:W

**FREN 45.06 - Debate, Dialogue and Advice: Launching France on Rhetoric**

Instructor: See department website

Discussion, whether among equals or in a hierarchical dynamic, shapes politics, culture and worldview. Questions such as the ideal form of government and the most desirable way of life are staged in early literature that uses platforms of debate, dialogue and counsel to sway listening audiences and individual readers, from powerful princes to townspeople. Readings may include works by Peter Abelard, Jean de Meun, Guillaume de Machaut, Philippe de Mézières, Christine de Pizan, and Alain Chartier.

Prerequisite: A course in the FREN 10 series or permission of the instructor.

Distributive: Dist:LIT; WCult:W

**FREN 50 - French Literature: Major Figures**

Instructor: See department website

This course will be devoted to the study of a single author or a group of authors who have exercised a decisive influence on French, European or world literature or who are deserving of concentrated attention because of the quality or originality of their literary production.

Prerequisite: A course in the FREN 10 series or permission of the instructor.

Distributive: Dist:LIT; WCult:W

**FREN 53.05 - French Theory**

Instructor: See department website

French writers played a crucial role in the development of contemporary literary and critical theory. French theorists have analyzed subjects ranging from perception, to sexuality, gender, the unconscious, popular culture, fashion, cinema, photography, mythology, kinship, and the body. This course will examine some of the major trends and master works in this explosion of theoretical activity in

Prerequisite: A course in the FREN 10 series or permission of the instructor.

Distributive: Dist:TMV; WCult:W

**FREN 50.07 - Baudelaire/Flaubert: Reading Modernity for Filth**

It is by a fortuitous, if strange, twist of literary fortune that two publications from the winter of 1857—both of which would later come to be regarded as uncontested masterworks of high modernism in the French literary canon—saw their authors hauled before Second Empire courts and put on trial for obscenity: Gustave Flaubert’s *Madame Bovary* and Charles Baudelaire’s *Les Fleurs du mal*. This course will pursue a perhaps inadvertent insight made during the trials against these two core figures in French—and world—literature: namely, that the so-called crimes (of shocking moral corruption, of prurience and obscenity, etc.) of which Baudelaire and Flaubert were accused have much to do with the formal complexity and aporias that one finds in their works. What one finds there, in other words, is less “filthy” material per se than a stylistics that opens up space for dangerously unruly sociocritical readings; that brings into visibility and legibility desires and subjectivities typically confined in the nineteenth century to the *grisaille silencieuse* of “History’s” margins; and that seeks to bring out into representation repressed historical and political traumas occasioned by the “shocks” of modernity (Benjamin). One finds, in other words, in Baudelaire’s poetry and in Flaubert’s novels a distinct literary politics; a critical use of literature against the abuses of the present order of things.

A way of reading modernity for filth

Prerequisite: A course in the FREN 10 series or permission of the instructor.

Distributive: Dist:LIT; WCult:W

**FREN 53 - French Thought: Philosophical Issues**

Instructor: See department website

This course will study texts which have shaped influential views of human nature, scientific knowledge, social and moral values. Its focus may be on the philosophers and moralists of the classical period (such as Pascal and La Rochefoucauld), the social and political thinkers of the Enlightenment (Diderot and Rousseau) or contemporary thinkers (Beauvoir, Foucault, Lévi-Strauss).

Prerequisite: A course in the FREN 10 series or permission of the instructor.

Distributive: Dist:TMV; WCult:W

**FREN 50.05 - Montaigne and Proust**

Instructor: See department website

Montaigne and Proust, two of the greatest prose writers in the French literary tradition, represent distinct historical periods (the Renaissance and early twentieth century France) in which the idea of subjectivity is a major intellectual concern. Using Montaigne and Proust's first person narratives as emblematic of their times, the course will examine how self-portraiture is manifested in time and space and reflects upon broader notions of character, sensation, gender and sexuality, history and memory. Particular attention will be paid to how writing can be viewed as a way to suspend time, delay death and prolong life and sensation. Paradoxically we shall discover in each writer the failure of "autobiographical" narrative to establish identity. Selections will include representative *Essais* of Montaigne, Proust's *Du côté de chez Swann* and *Le temps retrouvé*, and short essays by Bergson, Bersani, Deleuze, de Man, Derrida, Genette, Kristeva and Lacan.

Prerequisite: A course in the FREN 10 series or permission of the instructor.

Prerequisite: A course in the FREN 10 series or permission of the instructor
Distributive: Dist:TMV; WCult:W

**FREN 53.06 - Human Rights in France**
Instructor: See department website
A wide-ranging survey of the historical and conceptual issues in human rights from the Enlightenment to the present. An examination of philosophical origins and contemporary theoretical debate on citizenship and hospitality, republicanism and universalism; death penalty, women’s and gay rights, Charlie Hebdo and freedom of the press. Essays, historical documents and literature. Authors drawn from: Voltaire, Rousseau, Gouges, Renan, Drumont, Hugo, Camus, Sartre Beauvoir, Ben Jelloun, Badinter, Derrida, Kristeva, Agacinski, Lefort, Balibar, Debray.

Prerequisite: A course in the FREN 10 series or permission of the instructor.
Distributive: Dist:TMV; WCult:W

**FREN 53.07 - Confrontations with Death in the French Tradition**
Instructor: See department website
Through readings of essays, plays, poetry and fiction, we will examine the relationship of death to the history of French culture and the philosophical traditions it embodies, from the medieval danse macabre to the present. Issues to be discussed include separation and loss, mourning and melancholia, violence, eroticism and sexual difference. Texts will include Villon, Montaigne, Bossuet, Pascal, Flaubert, Baudelaire, Sartre, Beckett, Beauvoir, Derrida, Blanchot and Barthes.

Prerequisite: A course in the FREN 10 series or permission of the instructor.
Distributive: Dist:TMV; WCult:W

**FREN 53.08 - Paris, philosophies de l'espace**
Instructor: See department website
Paris has been described in numerous disciplines and media: literature, philosophy, cinema, photography, painting, sociology, geography, etc. What usage schemes characterize the city? How are often conflicting identities generated when individuals seek to inhabit and negotiate the hierarchies of its neighborhoods? How do diverse thinkers, filmmakers, and photographers describe and represent the class, ethnic, and gender clashes that play out in urban space? In what ways do affective “investments” saturate Parisian streets, buildings, and businesses?

Prerequisite: A course in the French 10 series or permission of the instructor
Distributive: Dist:SOC; WCult:W

**FREN 55 - French Culture and Politics**
Instructor: See department website
This course will study the broad field of French civilization with a variety of approaches. Literary texts may be studied for their political influence; literature may be seen as a way of changing history or a reflection of history. Writings on cultural or political issues, by such figures as Montaigne, Diderot or de Staël, may also be included as may more current works from the field of cultural criticism.

Prerequisite: A course in the FREN 10 series or permission of the instructor.
Distributive: Dist:SOC; WCult:W

**FREN 55.04 - India in the French Imagination**
Instructor: Beasley
The West is often seen as having exerted a civilizing force on an orientalized, inferior, homogenous East. In this course, we will challenge this prevalent view of the relationship between East and West by focusing on France’s encounter with one member of the oriental pantheon, India. We will examine encounters between India and France in architecture such as Versailles and the Taj Mahal, in literary and philosophical discussions and contrast France’s relationship to India with those established with other “orients” using travel narratives, correspondence, novels, theater, newspapers, fables, and the work of cultural historians.

Prerequisite: A course in the FREN 10 series or permission of the instructor.
Distributive: Dist:SOC; WCult:W

**FREN 55.05 - France, 1914-1944: from One War to Another**
Instructor: See department website
This course will analyze what General Charles de Gaulle used to call “the Thirty Years War.” From the First World War to the German Occupation, we will focus on one of the most dramatic periods of French history. In articles, speeches, diaries, memoirs and films, we will examine its main events, the political choices of the population (coercion and consent, brutalization, pacifism, antifascism, collaboration, attentisme, resistance), social and cultural fields, and questions of memory.

Prerequisite: A course in the French 10 series or permission of the individual instructor
Distributive: Dist:SOC; WCult:W
FREN 55.06 - Politics and French Intellectuals
Instructor: Kritzman
The modern intellectual was invented in France at the time of the Dreyfus affair. In the twentieth century, French intellectuals were seen as moral guides and social critics. They engaged in philosophical speculations by bridging theory with practice. During political crises, intellectuals engaged in public debate as a means of influencing society. We will examine figures such as Zola, Benda, Breton, Sartre, Camus, Beauvoir, Aron, Foucault, Ben Jelloun, Derrida and Kristeva.
Distributive: Dist:TMV; WCult:W

FREN 60 - Gender and French Literature
Instructor: See department website
Intersections of gender and literary expression will be studied from a variety of perspectives: gender and authorship (women writers, écriture féminine, comparative analysis of masculine/feminine treatments of genres or themes); gender and reading (do men and women read differently? do certain texts address a specifically gendered readership?); gender and literary form (the lyric, the romance plot); representations of men and women in certain movements or periods (the female body, women/men as subjects or objects of representation).
Prerequisite: A course in the FREN 10 series or permission of the instructor.
Distributive: Dist:LIT; WCult:W

FREN 70 - Francophone Literature
Instructor: See department website
This course will involve the study of Francophone literature outside Europe. This may include the literature of Africa, the Caribbean, Québec and Southeast Asia.
Distributive: LIT

FREN 70.03 - Passages and Ambiguous Adventures: Colonial and Postcolonial Questions of Migration and Immigration
Instructor: See department website
A comparative study of urban and globalized Francophone cultures (Port-au-Prince, Dakar, Algiers, Tangiers, Saigon, Brussels, Paris), the attendant challenges and effects of globalization, including immigration, national politics, gender, sexuality, as well as ecology and economics, and how the literary or filmic imagination captures these issues. Readings by Kane, Sembène, Beyala; Lé, Lefèvre; ben Jelloun, Allouache, Chraibi; Chauvet, Ollivier, Étienn, Césaire, Glissant.
Prerequisite: A course in the FREN 10 series or permission of the instructor.
Distributive: Dist:ART; WCult:W

FREN 75 - French Film
Instructor: See department website
This course will focus on one of the following: an individual filmmaker, a significant movement or period, or a major theme in French cinema. Students will become familiar with aspects of French cinematic history as well as with important concepts in film analysis.
Prerequisite: A course in the FREN 10 series or permission of the instructor.
Distributive: Dist:ART; WCult:W

FREN 70.04 - Pourtours mystiques
Instructor: See department website
In ‘Récits méditerranéens, pourtours mystiques II,’ we will focus on first-person narratives (fictional and non-fictional, fictive and fictionalized) from across the modern Mediterranean Francophone world: Lebanon, Egypt, Algeria, Tunisia and Morocco. We will unravel the mystical underpinnings that subtext the politics of autobiography, autofiction and autoportraiture in texts by Tahar Ben Jelloun, Hélène Cixous, Jacques Derrida, Assia Djebar, Edmond Jabès, Abdelkébir Khatibi, Amin Maalouf, Abdelwahab Meddeb, and Salah Stétié.
Prerequisite: A course in the FREN 10 series or permission of the instructor.
Distributive: LIT

FREN 70.05 - Mystical and Earthly Love
Instructor: Elhariry
In this course, we will focus on cultures of love across the modern Mediterranean Francophone world: Lebanon, Egypt, Algeria, Tunisia, Morocco. We will unravel the mystical and earthly underpinnings that subtext the politics and history of eros and emancipation. Readings by Assia Djebar, Habib Tengour, Abdelwahab Meddeb, Salah Stétié, Abdellah Taïa. Films by Gilo Pontecorvo, Moustapha Akkad, Assia Djebar, Mathieu Kassovitz, Abdellah Taïa, Nabil Ayouch.
Prerequisite: A course in the French 10 sequence or permission of the instructor.
Distributive: Dist:LIT; WCult:NW

FREN 75.01 - Faces of the Criminal
Instructor: See department website
This course will examine the history of French film through the prism of its representations of criminality. Assigned films may include works by Marcel Carné, Henri-Georges Clouzot, René Clair, Joseph Losey, Jean Renoir, Louis Malle, Jacques Becker, Jean-Pierre Melville, Alain Resnais, Bertrand Tavernier, Michael Haneke,
François Ozon, Bertrand Blier, Agnès Varda, Jean-Luc Godard, Maurice Pialat, Claude Chabrol, Robert Bresson, Luis Buñuel, Gaspard Noé, Alain Guiraudie, and Jacques Audiard.

Prerequisite: A course in the FREN 10 series or permission of the instructor.

Distributive: Dist:ART; WCult:W

**FREN 75.02 - Toward a History of French Cinema**

Instructor: See department website

France gave birth to cinema in 1895. Since then, French cinema has influenced not only French society, but filmmakers around the world. In this course, we will explore silent masterpieces, New Wave film, and movies of the 21st century to examine the evolution of French film and its impact on French culture. Our analyses will include in-class film excerpts and a selection of movies that will be available to you on DVD or to stream.

Prerequisite: A course in the French 10 sequence or permission of the instructor

Distributive: Dist:ART; WCult:W

**FREN 75.03 - Cinema and Modern Life**

Instructor: See department website

This course will propose a historical overview of French cinema, with a particular emphasis on the relationship between cinema and the idea of the modern or modernity. How was cinema perceived as a modern, technological art? How was cinema positioned in relation to utopian and dystopian visions of industrial capitalist modernity? How did cinema contribute to these visions? To respond to these questions, this course will examine texts and films associated with many of the most important cultural, intellectual, and political movements in twentieth-century France: socialism, communism, anarchism, naturalism, surrealism, modernism(s), poetic realism, Left Bank cinema, the New Wave, cinéma vérité, formalism, le cinéma du look, postmodernism(s).

Distributive: Dist:ART; WCult:W

**FREN 78 - Senior Major Workshop: Methods in Reading, Writing and Cultural Analysis**

Instructor: See department website

As part of this culminating experience, each major will work on an independent project, either a senior thesis or expanding upon work begun in a previous course. The independent project will be developed within the framework of this course using a selection of critical texts that can be viewed as models of literary, cultural, and historical analysis. Lectures by a variety of faculty members will supplement the readings. Students will gain mastery in literary and cultural analysis, close analytical reading skills and composition in French. The course is open only to French and Italian Department senior majors or by petition, which is due by the fifth day of classes of Fall term.

Distributive: Dist:LIT; WCult:W

**FREN 80 - French Literature and the Other Arts**

Instructor: See department website

Literary works (poetry, theater, the novel, the essay) will be examined in their relationship to the other arts. This will include music, painting, the plastic arts, architecture, etc. Sample topics: opera and melodrama; symbolism and Impressionist painting; surrealism in poetry and collage; art criticism by such writers as Baudelaire, Apollinaire, Ponge.

Prerequisite: A course in the FREN 10 series or permission of the instructor.

Distributive: Dist:ART; WCult:W

**FREN 80.03 - Men Behaving Badly: The Offending Sex in Literature and Music**

Instructor: See department website

Infamous men are often portrayed in works of art and literature as predatory and power hungry narcissists. From Don Juan’s sexual predation, to Valmont’s narcissism, the evils of men are, at once, the most reviled and the most seductive to artists and audiences alike. This course will explore the historical progression of “bad-boy” behavior through the literary and musical works of Berlioz, Molière, Laclos and others. We will study miscreants who single-mindedly pursue their destructive goals. By examining how literature and music represent misogyny, we will pay particular attention to what constitutes “bad” behavior, to what initiates such behavior, and to the moral and social implications of such behavior. At the same time, we will discuss how the “good” aesthetics of “bad” (the way in which aesthetic beauty) is made from the raw materials of social and psychological malefaction. These broader questions will help frame our thematic investigation of misbehavior, with discussions on vices such as rakishness, hubris, greed and narcissism. We will focus on how literary and musical genres portray these vices, and then take note of how vices attain an ambiguous meaning within the social and moral systems of these works.

Prerequisite: A course in the French 10 sequence or permission of the instructor

Distributive: Dist:LIT; WCult:W

**FREN 80.04 - Color Coding: The Intensive Use of Color in Medieval Media**

Instructor: See department website

In medieval Western Europe, civilization was a culture of color. Color was omnipresent, whether in interior or exterior paintings, in sacred or secular architecture, in
sculpture, furniture or illustrated manuscripts. A church was not considered complete until it had been painted. Mural paintings adorned with narrative scenes or decorative figures sought to embellish God's earthly Creation; to paint was to undertake a spiritual endeavor. At the same time, color and images aimed to teach; no scene or figure was without meaning. From the walls of medieval edifices to the pages of manuscripts, we will explore in this seminar pictorial creation in France from the seventh through the fifteenth centuries.

Prerequisite: A course in the French 10 sequence or permission of the instructor

Distributive: Dist:ART; WCult:W

**FREN 81 - Seminar**

Instructor: LaGuardia

A program of individual study directed by a member of the faculty open to majors, minors and other students who, in the judgment of the instructor, possess relevant preparation. A proposal, signed by the faculty advisor, must be submitted to the Department for approval by the fifth day of classes of the term.

Prerequisite: Permission of the instructor.

**FREN 87 - Honors Thesis Reading and Research**

Instructor: LaGuardia

A program of individual study directed by a member of the staff. Open only to French, French Studies and Romance Language Majors. By special permission this course may be taken more than once. A proposal, signed by the faculty advisor, must be submitted to the Department for approval by the fifth day of classes of the term.

**FREN 89 - Honors Seminar**

Instructor: LaGuardia

Honors students will arrange a program of study and research during any term of the senior year on a tutorial basis with individual faculty members. A thesis, written in French, and a public presentation are the normal culmination of this course. A proposal, signed by the faculty advisor, must be submitted to the Departmental Committee on Independent Studies and Honors Theses for approval by the fifth day of classes of the term. For information about application procedures, please review the Honors Program section.

**FRIT - French and Italian in Translation Courses**

To view French and Italian in Translation requirements, click here (p. 355).

The following courses are taught in English.

**FRIT 31 - How Languages are Learned**

Instructor: Convertini

Many approaches to language teaching and learning have been proposed and implemented over time. From learning grammar rules and lists of vocabulary to memorization and practice of correct sentences to natural communication, project work, communicative language teaching, and content-based learning, this course will introduce students to some of the language acquisition research that will help them understand how languages are learned. Topics explored in the course will include language awareness, bilingualism, early-child language learning, the major trends in twentieth-century language teaching, and the role of technology in language learning. The course will also offer students the opportunity to reflect on language learning on a personal level, to find out how they think as language learners and how they can empower themselves to learn languages in an active and engaged manner. Hands-on activities, including class observations, textbook evaluations, and interviews with language learners, will complement the course. Open to all students. Text, lectures, and discussion in English. Students taking the course for major or minor credit in Italian will attend a weekly x-hour and do all written work in Italian. Not open to students who have received credit for FRIT 093.

Distributive: Dist:SOC

**FRIT 33 - Dante: The Divine Comedy**

Instructor: Callegari

Is there an afterlife? What is it like? Who may describe the hereafter in this world and shape my behavior? These are the ever-present questions that Dante’s *Comedy* poses. The course’s central themes will be exile and paradise: Exile means both Dante’s own banishment and the universal pilgrimage of life; paradise is the unattainable homecoming of true happiness. Students will explore the poem, its sources, and reception, developing a rigorous yet personal response to Dante’s *Comedy*. Open to all students. Text, lectures and discussion in English. Students taking the course for major or minor credit in Italian will attend a weekly x-hour and do all written work in Italian.

Distributive: Dist:LIT; WCult:W

**FRIT 33.01 - Into and Beyond Dante's Inferno**

Instructor: Callegari

The work of Dante Alighieri (1265-1321) stages from beginning to end a struggle between personal desire, social obligation, and the conflicting cultures of Christian religion and the body politic. The unprecedented fusion Dante made of these elements in the Commedia [The Divine Comedy] has guaranteed his great poem a vast public, extending across world cultures and the seven centuries since it initially traveled among elite readers in north-central Italy in the early decades of the fourteenth century. This course will first examine the development of Dante’s poetic voice in *La vita nova* [The New Life, ca. 1293-94] and then focus on its subsequent expansion into
an all-encompassing vision of life and death in Inferno [Hell, ca. 1306-09], the first of the three canticles of the Commedia. Situating Dante in his own time and place will be essential to our analysis of his poetry, but attention to the multiple ways that Dante’s work has been interpreted, translated, and appropriated in other periods, languages, and media will provide a critical framework for understanding its enduring appeal, why – in the words of Italo Calvino – it “has not finished saying what it has to say.” Readings, lectures, discussion, and written work – to include a mid-term exam, two short essays, and a final digital project – will be in English. Students taking the course for major or minor credit will attend a weekly X-hour and write the two essays in Italian.

Cross-Listed as: REL 32.02
Distributive: Dist:LIT; WCult:W

FRIT 34 - Renaissance Studies in Translation
Instructor: See department website

An examination of Italian Renaissance masterpieces in translation, which will explore the centrality of Italian ideas and ideals to the development of literary and cultural norms in Italy and Europe. Topics will vary according to the focus established by each instructor. Open to all students. Text, lectures and discussion in English. Students taking the course for major or minor credit in Italian will attend a weekly x-hour and do all written work in Italian.

Distributive: Dist:LIT; WCult:W

FRIT 34.01 - Sex and Gender in the Italian Renaissance
Instructor: See department website

This interdisciplinary course explores conceptions of sex and gender in Italian Renaissance literature and visual art. We’ll trace a social history of love and sex in Renaissance Italy, examine how sex and sexual bodies were represented in literature and in images, and look at how governments and the Church attempted to manage and punish sexual transgression. Themes we will investigate include representations of male and female bodies, gender roles for both men and women, sexual violence, same-sex desire, and cross-dressing.

Open to all students. Text, lectures and discussion in English. Students taking the course for major or minor credit in Italian will attend a weekly x-hour and do all written work in Italian.

Prerequisite: Open to all students. Text, lectures and discussion in English. Students taking the course for major or minor credit in Italian will attend a weekly x-hour and do all written work in Italian.

Cross-Listed as: WGST 48.07
Distributive: Dist:LIT; WCult:W

FRIT 35 - Modern Italian Culture and Society
Instructor: See department website

According to the interests of the instructor, a major topic, art form, literary genre, or historical theme that concerns modern Italy will be approached in relation to Italian culture and society as a whole. The focus of the course will thus be interdisciplinary, emphasizing the interplay of the fine arts, literature, film, music, history, and philosophy. Possible themes include Literature and Politics in Nineteenth and Twentieth Century, The History of Italian Opera, The Culture of Italian Fascism, Italian Film (specific directors such as Fellini, De Sica, Bertolucci and Antonioni). Open to all students. Text, lectures and discussion in English. Students taking the course for major or minor credit in Italian will attend a weekly x-hour and do all written work in Italian.

Cross-Listed as: COLT 057 INTS 017
Distributive: WCult:W

FRIT 35.01 - From Dagos to Sopranos
Instructor: Parati

Are Italians white? Where does the word “dago” come from? What is “dago red”? Can Italians be “Afrocentrists”? Are Italians racist? What do you know about the mafia? These and other questions will be at the center of this course. We will also work on the portrayal of ItalianAmericanness in “The Sopranos,” “The Godfather,” and Jim Jarmush’s “Ghost Dog.” The last week of the course will be devoted to the music by Italian Americans such as Sinatra and Madonna.

Open to all students. Text, lectures and discussion in English. Students taking the course for major or minor credit in Italian will attend a weekly x-hour and do all written work in Italian.

Cross-Listed as: COLT 57.02
Distributive: Dist:LIT; WCult:CI

FRIT 35.02 - Fascisms
Instructor: See department website

This class is about fascisms and the plural is not a typo. We will ask ourselves the question: how did fascism rise to power? Why did people support it? We will focus initially on the original model for fascist dictatorships, that is Italian fascism, but we will also have in-class presentations by Dartmouth professors on German, Spanish, French and Japanese forms of fascism. This is a course that will concentrate on history, film, literature, and fashion in order to talk about the slippery definitions of fascism.

Cross-Listed as: COLT 57.09 INTS 17.10
Distributive: Dist:INT; WCult:W
FRIT 37 - Topics in Literature and Culture

Offerings of this course will consist of various topics in Literature and Culture.

Open to all students. Text, lectures and discussion in English: Students taking the course for major or minor credit in French or Italian will attend a weekly x-hour and do all written work in the target language.

FRIT 37.01 - Nature: A Literary History

Instructor: See department website

Civilization's essence lies in its distinction from Nature. Both physically and symbolically, city walls separate the world of citizens, societies, and cultures from the uncultivated land, the wild beasts, and the illiterate savages that lie without. But how solid are these walls? And how real or even desirable are the distinctions they seek to make? We may prefer the civilized to the wild, but do we not also, paradoxically, prefer the natural to the artificial? Is nature to be dominated, or revered? Is it our nemesis or our mother? Exploring texts in the Italian tradition, this course will trace the history of nature from the beginning of civilization to the present time, and uncover our ever changing, ever contradictory opinions about it.

FRIT 37.02 - History of Romance Languages

Instructor: See department website

This course focuses on the internal history of three Romance languages—Italian, Spanish, and French—showing how they diverged from their common ancestor to become three separate languages today. Although we will pay some attention to social, cultural, political, and literary developments, the bulk of the course will cover changes in linguistic structure. We will trace the development of phonology, morphology, and lexicon from Vulgar Latin up through the present.

Cross-Listed as: LING 50.04
Distributive: QDS; WCult:W

FRIT 37.03 - Black Feminisms in the French Atlantic

Instructor: See department website

French colonialism and particularly French transatlantic slavery between the 17th and 19th centuries produced a shared linguistic and cultural legacy as well as a sustained political struggle carried by Black populations in France, sub-Saharan Africa, the Caribbean, and Québec. Although combatting racial inequality and white supremacy is generally understood through the lens of movements in the US, or the example of South African apartheid, this course invites students to consider such undertakings from a fundamentally transnational point of view by focusing on Black Feminisms in the French-speaking African diaspora. Open to all students. Text, lectures and discussion in English.

Cross-Listed as: AAAS 88.18
Distributive: Dist:INT; WCult:CI

FRIT 37.04 - European Fairy Tales

Instructor: See department website

In this course we will study the evolution of the forms and contents of the rich European fairy-tale tradition, from the Renaissance to our times. Along the way we will address questions concerning canon formation; the role of “marvelous” genres such as the fairy tale in socialization and the expression of national identity; the relation between oral folk narratives and written literary tales; and the reworking of fairy-tale subjects and motifs in contemporary culture. We will also acquaint ourselves with a variety of critical approaches to the fairy tale, and create tales of our own in a special storytelling workshop.

Cross-Listed as: COLT 39.03
Distributive: Dist:LIT; WCult:W

FRIT 37.05 - Black Queer & Trans Futures: An Experiment

Instructor: See department website

Engaging with the histories and present realities of colonial dispossession, racial violence and cis-heteropatriarchy on campus and beyond, we will examine and craft visions of alternative futures grounded in prison abolition. Drawing on archival research, critical theory and speculative fiction from Black queer and trans thinkers such as Miss Major, Edouard Glissant, Marie Vieux-Chauvet, Octavia Butler, and Samuel Delany, our goal will be to challenge our current carceral order, chart how we move past it, and imagine what liberatory prison abolitionist futures lie beyond.

Cross-Listed as: WGSS 52.06
Distributive: Dist:SOC; WCult:CI

FRIT 37.06 - Italian Political Theory: From Dante and Machiavelli to Biopolitics

Instructor: See department website

In his 2010 book Living Thought, philosopher Roberto Esposito claims not only that the work of contemporary Italian Theory is attracting increasing international attention, but also that knowledge of the Italian intellectual tradition is crucial for understanding the world around us. To comprehend and evaluate Esposito’s claim, this FRIT class explores Italian political thought from Dante and Machiavelli to the contemporary international debate on biopolitics led by figures such as Giorgio Agamben and Esposito himself. The class will be taught in English.
FRIT 37.07 - Do the Right Thing! Creativity and Public Engagement in Italy and the United States
Instructor: See department website
This course explores the confluence of art, literature, cinema, political engagement, and activism in the nineteenth, twentieth, and twenty-first centuries between Italy and the United States. Students will familiarize themselves with the most controversial and influential artists and intellectuals of these periods from both countries and they will also have the opportunity to spend two weeks collaborating with an Italian street artist on a project that integrates learning and awareness into practice.

FRIT 37.08 - Obsessive Affinities Contemporary French & American poetry
Instructor: See department website
This deeply experiential course examines the rich history of transatlantic desire, negotiated over the love of poetry. The United States has always figured heavily in the collective French imaginary ever since the American Revolution, for instance in the works of Tocqueville and Chateaubriand. American literature, however, gains particular prominence toward the mid-twentieth century with the transatlantic travels of Simone de Beauvoir, André Breton, Jean-Paul Sartre, and Philippe Sollers among authors, to the point that French writers began wondering how one can even be French in the first place. The course explores this crisis in national identity through a series of important poetic Franco-American friendships and collaborations: Edmond Jabès and Rosmarie Waldrop; Emmanuel Hocquard and Michael Palmer; Serge Pey and Allen Ginsberg; the Fondation Royaumont; the poetry collective double change; among others.

ITAL 1 - Introductory Italian I
Instructor: See department website
An introduction to Italian as a spoken and written language, with emphasis on practical conversation. The course includes regular practice in class and scheduled drill-sessions in understanding and using the spoken language. Never serves in partial satisfaction of the Distributive or World Culture Requirements.

ITAL 2 - Introductory Italian II
Instructor: See department website
Rapid review and continued study of the fundamentals of Italian, with intensive work in vocabulary building. The course will also include an introduction to the culture and civilization of Italy. Open to students by qualifying placement or to students who have passed ITAL 1. Never serves in partial satisfaction of the Distributive or World Culture Requirements.

ITAL 3 - Introductory Italian III
Instructor: See department website
This course is designed to reinforce and refine spoken and written language skills through a review of grammar, exposure to a broad spectrum of language ranging from colloquial to literary styles, and the use of samples of Italian language from multiple sources such as advertising, comics, television and literature. Frequent compositions, quizzes, plus linguistic and thematic analysis of texts. Open to students by qualifying placement or to students who have passed ITAL 2 or ARTH 12. Never serves in partial satisfaction of the Distributive or World Culture Requirements.

ITAL 4 - Reading Rome
Instructor: Canepa
This course introduces students to various topics of Italian culture through specific examples taken from the context of Italy’s capital, largest city, and one of the West’s most complex symbols: Rome. Topics include stereotypes and the idea of national identity, society and politics, youth culture, family and gender roles, the arts, and gastronomy. Students will learn to engage with Italian cultural phenomena through inclass lectures and discussions, frequent site visit sites pertinent to the material we study, as well as 6 half-day guided tours of important monuments and museums of Rome.

ITAL 5 - Italian Express
Instructor: See department website
This innovative introductory course will provide you with the linguistic and cultural skills you will need to effectively function in Italy and fully enjoy its wonders. At the end of this course you will be able to converse in Italian in a social setting and to understand and communicate information regarding travel, public transportation and
housing; food and restaurants; shopping; technology; health; money; and more. Each week, three class meetings are combined with three drills and authentic cultural content provided in a weekly online module. This course is the equivalent of Italian 1 and fulfills the prerequisite to Italian 2.

Prerequisite: Acceptance into the Dartmouth Language Study Abroad Program.

Distributive: Dist:ART; WCult:W

ITAL 6 - Language Study Abroad: Literature
Instructor: See department website

An introductory course offered in the context of the Language Study Abroad program, dealing with major figures, themes, or genres of Italian literature. Some areas of concern are critical reading and analysis, style, historical and social perspective.

Prerequisite: Acceptance into the Dartmouth Language Study Abroad Program.

Distributive: Dist:LIT; WCult:W

ITAL 7 - First-Year Seminars in Italian Literature
Instructor: Canepa

ITAL 8 - Exploring Italian Culture and Language
Instructor: See department website

This course will serve as an introduction to Italian culture and society in the past and the present. It will focus on topics such as evolving political and regional identities, gender relations, the role of the media, and the culture of daily life, as they appear in the diverse range of narratives, poetry, cinema, music, and journalism. Students will also focus on specific grammatical and stylistic issues in order to improve their fluency in Italian. Course work will consist of frequent essays, student-led discussions and experiential learning laboratories in the city.

Prerequisite: Acceptance into the Dartmouth Language Study Abroad Program or Advanced/Language Study Abroad Program.

Distributive: Dist:SOC; WCult:W

ITAL 9 - Advanced Language Through Culture
Instructor: Convertini

Italian 9 expands on the skills acquired in the Italian language sequence (Italian 1, 2, 3, and/or the LSA) as well as offering a transition to Italian 10 and our upper-division literature and culture courses. This course introduces students to modern and contemporary Italian literature, culture and society through a focus on topics such as evolving political and regional identities, gender relations, the role of the media, and the culture of daily life. Students expand their active use of Italian, refine communicative, reading, and writing strategies, and comprehensively review grammar. Course work includes active participation in class discussions, oral presentations, and regular reading and writing assignments in the areas of narrative and poetry, cinema, music, and journalism. Instructors usually choose one or several "anchor" texts around which coursework revolves.

Distributive: Dist:LIT; WCult:W

ITAL 10.03 - Italian Disaster Narratives
Instructor: See department website

This course gives students a foundational understanding of Italian culture by pursuing a theme from medieval Italy to the present day. The course’s primary aims are to: 1) develop cultural awareness of Italy by studying texts from different media, genres, and periods, 2) increase student mastery of Italian through intensive practice in writing, reading, speaking, and listening, and 3) foster the intellectual skills of textual analysis, critical thinking and self-expression.

This term the theme is disasters, broadly understood and divided into three thematic groups: plague and sickness; invasion and occupation; human and social failure. Authors and artists include Dante, Petrarch, Boccaccio, Machiavelli, Galileo, Leopardi, Verga, Puccini, Anna Banti, Rossellini, Clara Sereni, and Marco Paolini.

Prerequisite: Italian 8 or 9 or permission of instructor

Distributive: Dist:LIT; WCult:W

ITAL 10.04 - Divas in Italian Culture
Instructor: See department website

This course will explore how divas – supremely skilled female singers - have been represented, imagined, and feared in Italian culture from the middle ages to the present day. Our texts will include writings by and about divas, songs and opera librettos, videos of live musical performances, photographs, and paintings. Through this blend of scholarly and popular media, we will explore the cultural and social functions of the diva, as well as how divas themselves negotiate their careers in the public eye. Authors and composers will include Petrarch, Boccaccio, Isabella Andreini, Margherita Costa, Giambattista Marino, Claudio Monteverdi, Giuseppe Verdi.

Prerequisite: Italian 8 or 9 or permission of instructor

Distributive: Dist:LIT; WCult:W

ITAL 10.05 - L'invenzione del paesaggio: Spaces and Places in Italian Culture
Instructor: See department website

This course explores various representations of spaces and places in Italian culture from Dante to the present. Readings and discussion focus on how Italian
writers and visual artists, filmmakers and philosophers imagined and represented real and fictional landscapes, and how these representations reflect, critique, and animate Italian culture since the Middle Ages.

Prerequisite: Italian 8 or 9 or permission of the instructor
Distributive: Dist:LIT; WCult:W

ITAL 10.06 - The Culture of Food in Italian Literature, 1300-2013
Instructor: See department website
Food and flavors pervade Italian literature, expressing the historical hunger of a social class, the nourishment of the spirit, or simply the pleasure of the senses. Through various texts and genres from the Middle Ages to the present, we will examine the culture of food and its social and symbolic value through the centuries. This course will be conducted entirely in Italian and will have an interactive format.

Prerequisite: Italian 8 or 9 or permission of the instructor
Distributive: Dist:LIT; WCult:W

ITAL 10.20 - Before Facebook: Friendship in Italian Literature
Instructor: See department website
What does it mean to be friends, and what is it that distinguishes this unique experience? How do people who are first distant from one another become close and connected? Italian novels, poems, short stories, fairy tales, screenplays, journalism and historical media will help us understand the voice of friendship as an essential human experience, a fundamental way of knowing the world.

Prerequisite: ITAL 8 or ITAL 9, or permission of the instructor
Distributive: Dist:LIT; WCult:W

ITAL 10.21 - Eat, Pray, Love: Modes of Desire in Italian Literature
Instructor: See department website
An introduction to Italian Literature, especially short prose fiction and poetry. In this course, we will study the ways in which desire drives narrative plot; contributes to the creation of meaning; and challenges traditional constructions of politics, identity, community, gender and sexuality. Attention will be given to building a vocabulary and critical toolset for interpreting and writing about literary texts from Middle Ages to the contemporary period.

Distributive: Dist:LIT; WCult:W

ITAL 11 - Intensive Italian
Instructor: See department website
This 1-credit course is designed for students with little or no knowledge of the Italian language, but who have a strong background in another Romance language (i.e. Spanish, French, Rumanian, Portuguese, Catalan, or Latin). Italian 11 is an accelerated course that combines Italian 1 and 2 in one term offering an exciting and fast-paced atmosphere to learn Italian. The course will have a hybrid component, that through cultural, grammar and multimedia introductory exercises will prepare students for the in-class activities. In this course, students will learn to talk about familiar events in the present and the past, as well as formulate plans for the future. Weekly cultural videos will situate in context the grammatical content of the course making it relevant and meaningful. Students will be actively engaged in a variety of creative written and oral activities that will help them develop their language skills. Upon successful completion of this course, students will be able to sign up for Italian 3 or apply for our Italian LSA in Rome. With the goal to facilitate the acquisition of the target language, this course will be conducted entirely in Italian.

ITAL 12 - Advanced Writing and Speaking in Italian
Instructor: See department website
An advanced language and composition course in which students will work with a wide range of linguistic and cultural materials in order to achieve competence in Italian grammar, and oral and written expression.

Prerequisite: Acceptance into the Dartmouth Advanced Language Study Abroad Program
Distributive: WCult:W

ITAL 14 - Journey to Italy: An Introduction to Italian Culture
Instructor: Convertini
This course introduces students to Italian culture through a representative selection of texts and topics from past to present, as well as encouraging students to think critically about notions of culture and identity. Topics include stereotypes and the idea of national identity, modern history, society and politics, food culture, the visual arts, music, cinema, religion, science and technology, the environment, Made in Italy, immigration, sports, and mafia. In many units, guest lecturers will widen the discussion by considering the global impact of Italian cultural production across time and space. Students will actively engage with Italian cultural phenomena through in-class lectures and discussions, hands-on exercises, and site visits.

Distributive: Dist:SOC; WCult:CI
ITAL 15 - Italian Cinema
Instructor: Convertini
Conducted in Italian, this course introduces students to classic Italian cinema, including its history and its predominant genres—from the silent film to comedy and melodrama and thriller. Students will become familiar with Italian cinematic movements such as Neorealism, directors such as Federico Fellini and Roberto Benigni, as well as with important concepts in film analysis.
Prerequisite: ITAL 8 or ITAL 9, or permission of the instructor.
Distributive: Dist:ART; WCult:W

ITAL 21 - Early Italian Literature and Culture
Instructor: See department website
This course will offer an introduction to medieval Italian literature and culture through readings of literary masterworks of the period. The approach will be interdisciplinary: we will consider connections between literary texts and medieval art, music, philosophical currents, and historical events. Specific topics will vary for each offering; themes may include the importance of writing in the vernacular, discourses of love, conceptions of sex roles and gender, personal and political aspirations of the self in society, and the constitution of ideal forms of social organization. Readings will be selected from Dante, Boccaccio, Petrarch, Caterina da Siena, and others.
Prerequisite: Italian 10 or permission of the instructor
Distributive: Dist:LIT; WCult:W

ITAL 22 - Humanism and Renaissance
Instructor: Canepa
This course explores the extraordinary cultural production of Italy from the late fourteenth to the end of the sixteenth century—the Renaissance. Specific topics will vary for each offering; students will examine broader social and historical contexts through themes such as the birth of humanism; attitudes toward the ancient world and the “discovery” of new worlds; developments in the visual arts and in science; court society; sexuality and court culture; gender and family life; religious reform. Authors may include Petrarch, Alberti, Machiavelli, Michelangelo, Isabella di Morra, Veronica Franco, Ruzante, Castiglione, Ariosto, Bandello, Tasso, and others.
Prerequisite: ITAL 10, or permission of the instructor.
Distributive: Dist:LIT; WCult:W

ITAL 23 - Seventeenth and Eighteenth-Century Italian Literature and Culture
Instructor: Canepa
This course explores the transformations that marked Italian literature and arts over the course of the seventeenth and eighteenth centuries, from the Baroque culture of crisis and change to the Enlightenment's reassessment of earlier forms of knowledge and representation. Specific topics will vary for each offering; themes may include the poetics of the marvelous, popular culture, the nuova scienza, evolving gender identities, the dialogues among the arts, the "cult of reason," and the relevance of both Baroque and Enlightenment categories to post-modernity. Emphasis is on the fundamental interdisciplinarity of this period’s culture and on its formal innovations in genres including the fairy tale, travel literature, the commedia dell'arte, the novel, and the opera. Authors and artists may include Basile, Marino, Galilei, Tarabotti, Isabella Andreini, Monteverdi, Bernini, Caravaggio, and Goldoni.
Prerequisite: ITAL 10, or permission of the instructor.
Distributive: Dist:LIT; WCult:W

ITAL 24 - Nineteenth-Century Italian Literature and Culture
Instructor: See department website
This course examines the changes in literary vision and artistic forms from the beginning of the nineteenth century, through the country’s unification, to the First World War. Emphasis will be placed on Italy’s growing self-awareness as a nation and on analysis of aesthetic and intellectual issues. Specific topics will vary for each offering; themes may include the emergence and significance of popular art such as satire and cookbooks; opera and national identity; and women’s literature as an innovative cultural force. Readings and artists may include Foscolo, Leopardi, Manzoni, Verga, Verdi, Puccini, Marchesa Colombi, Collodi, Artusi, Montessori, Grazia Deledda, and F. T. Marinetti.
Prerequisite: ITAL 10, or permission of the instructor.
Distributive: Dist:LIT; WCult:W

ITAL 25 - Twentieth and Twenty-first Century Italian Literature and Culture
Instructor: See department website
This course examines the radical transformation of literary form and vision that characterizes twentieth and twenty-first century Italy with its two World Wars, its colonial conflicts, and the challenges to Italian identity posed by modernization, immigration, and globalization. We will use poetry, fiction, autobiography, political writings, television, documentaries, and film to explore cultural movements such as the avant-garde and neo-realism. Specific topics will vary for each offering; themes may include modernism, fascism, the resistance movements, and terrorism. Readings will be both canonical and non-canonical and may include, for example, recent immigrant and minority writers. Readings and films may include
works by Bontempelli, Montale, Moravia, Morante, Calvino, Pavese, Maraini, Fellini, Tornatore, Wertmueller, and Jadelin Mabiala Gambo.

Prerequisite: ITAL 10, or permission of the instructor.
Distributive: Dist:LIT; WCult:W

ITAL 26 - Italian Cinema
Instructor: See department website
Conducted in Italian, this course introduces students to classic Italian cinema, including its history and its predominant genres—from the silent film to comedy and melodrama and thriller. Students will become familiar with Italian cinematic movements such as Neorealism, directors such as Federico Fellini and Roberto Benigni, as well as with important concepts in film analysis. Not open to students who have received credit for ITAL 15.
Distributive: Dist:ART; WCult:W

ITAL 27 - Topics in Italian Literature
Offerings of this course will consist of various topics in Italian literature.
Distributive: Dist:LIT; WCult:W

ITAL 27.01 - Animals and Animality in Modern Italian Literature and Thought
Instructor: See department website
With the modernization of their country, Italian authors have been increasingly interested in animals, using representations of non-human creatures to reflect upon themselves and their changing relationships with the environment. This course focuses on modern Italian literary and philosophical texts (from Leopardi’s Operette Morali to Agamben’s L’aperto) which strongly feature non-human animals and animality, in order to explore how modern Italian culture offers an original contribution to the re-thinking of the limits of anthropocentric humanism.
Prerequisite: Italian 10 or permission of the instructor
Distributive: Dist:LIT; WCult:W

ITAL 27.02 - Crossing Cultures: Translation in Theory and Practice
Instructor: Canepa
Human communication depends on translation. Much of what we know about worlds different from our own comes through translations and the dialogues between languages and cultures that they create. In this course we will focus on translation between Italian and American cultures, and consider the larger question of the representation of “foreignness.” We will explore the theory and practice of translation in various contexts—literature, film, popular media—and gain direct experience in the art of translation through workshops and a final project.
Prerequisite: Italian 10 or permission of instructor
Distributive: Dist:INT or LIT; WCult:W

ITAL 33.01 - Into and Beyond Dante's Inferno -
The work of Dante Alighieri (1265-1321) stages from beginning to end a struggle between personal desire, social obligation, and the conflicting cultures of Christian religion and the body politic. The unprecedented fusion Dante made of these elements in the Commedia [The Divine Comedy] has guaranteed his great poem a vast public, extending across world cultures and the seven centuries since it initially traveled among elite readers in north-central Italy in the early decades of the fourteenth century. This course will first examine the development of Dante’s poetic voice in La vita nova [The New Life, ca. 1293-94] and then focus on its subsequent expansion into an all-encompassing vision of life and death in Inferno [Hell, ca. 1306-09], the first of the three canticles of the Commedia. Situating Dante in his own time and place will be essential to our analysis of his poetry, but attention to the multiple ways that Dante’s work has been interpreted, translated, and appropriated in other periods, languages, and media will provide a critical framework for understanding its enduring appeal, why—in the words of Italo Calvino—it “has not finished saying what it has to say.” Readings, lectures, discussion, and written work—to include a mid-term exam, two short essays, and a final digital project—will be in English. Students taking the course for major or minor credit will attend a weekly X-hour and write the two essays in Italian.
Cross-Listed as: REL 32.02
Distributive: Dist:LIT; WCult:W

ITAL 34 - Renaissance Studies in Translation
Instructor: See department website
An examination of Italian Renaissance masterpieces in translation, which will explore the centrality of Italian ideas and ideals to the development of literary and cultural norms in Italy and Europe. Topics offered under the ITAL 034 rubric will vary.
Open to all students. Text, lectures and discussion in English. Students taking the course for major or minor credit in Italian will attend a weekly X-hour and do all written work in Italian.

ITAL 34.01 - Sex and Gender in the Italian Renaissance
This interdisciplinary course explores conceptions of sex and gender in Italian Renaissance literature and visual art. We’ll trace a social history of love and sex in Renaissance Italy, examine how sex and sexual bodies were represented in literature and in images, and look at
how governments and the Church attempted to manage and punish sexual transgression. Themes we will investigate include representations of male and female bodies, gender roles for both men and women, sexual violence, same-sex desire, and cross-dressing.

Open to all students. Text, lectures and discussion in English. Students taking the course for major or minor credit in Italian will attend a weekly x-hour and do all written work in Italian.

Distributive: Dist:LIT; WCult:W

ITAL 35.01 - From Dagos to Sopranos

Are Italians white? Where does the word “dago” come from? What is “dago red”’? Can Italians be “Afrocentrists”? Are Italians racist? What do you know about the mafia? These and other questions will be at the center of this course. We will also work on the portrayal of ItalianAmericanness in “The Sopranos,” “The Godfather,” and Jim Jarmush’s “Ghost Dog.” The last week of the course will be devoted to the music by Italian Americans such as Sinatra and Madonna.

Open to all students. Text, lectures and discussion in English. Students taking the course for major or minor credit in Italian will attend a weekly x-hour and do all written work in Italian.

Distributive: Dist:LIT; WCult:CI

ITAL 35.02 - How to Be a Fascist

How do people become fascists? How do they rise to power? Why did people support fascism? We will focus initially on the original model for fascist dictatorships, that is Italian fascism, but we will also have in-class presentations by Dartmouth professors on German, Spanish, French and Japanese forms of fascism. This is a course that will concentrate on history, film, literature, and fashion in order to talk about the slippery definitions of fascism.

Cross-Listed as: COLT 57.09 INTS 17.10

Distributive: Dist:INT; WCult:W

ITAL 35.03 - Migration, Ecology, and the Mediterranean

Why do people migrate? How does their migration impact the places they cross? How have migrations trajectories changed in the last 150 years? Why do people embark in a risky journey across the Mediterranean Sea? How do their destination countries react to their arrivals? How does migration chance Europe? These are some of the questions we will try to answer in this class. Using an interdisciplinary approach, we will look at what the impact of migration is on the environment and in the process of changing old ideas about what Europe is. Through an interdisciplinary approach using material that originates from both the humanities (film and literature literature) and the social sciences (mainly geography and sociology), we will explore the present and discuss the possible futures of migrations across the Mediterranean.

Cross-Listed as: COLT 57.11

Distributive: Dist:INT; WCult:W

ITAL 37 - Topics in Literature and Culture

Instructor: Canepa

Offerings of this course will consist of various topics in Literature and Culture. Open to all students. Text, lectures and discussion in English. Students taking the course for major or minor credit in Italian will attend a weekly x-hour and do all written work in the Italian.

ITAL 37.01 - Nature: A Literary History

Civilization's essence lies in its distinction from Nature. Both physically and symbolically, city walls separate the world of citizens, societies, and cultures from the uncultivated land, the wild beasts, and the illiterate savages that lie without. But how solid are these walls? And how real or even desirable are the distinctions they seek to make? We may prefer the civilizied to the wild, but do we not also, paradoxically, prefer the natural to the artificial? Is nature to be dominated, or revered? Is it our nemesis or our mother? Exploring texts in the Italian tradition, this course will trace the history of nature from the beginning of civilization to the present time, and uncover our ever changing, ever contradictory opinions about it.

ITAL 37.02 - History of the Romance Languages

This course focuses on the internal history of three Romance languages—Italian, Spanish, and French—showing how they diverged from their common ancestor to become three separate languages today. Although we will pay some attention to social, cultural, political, and literary developments, the bulk of the course will cover changes in linguistic structure. We will trace the development of phonology, morphology, and lexicon from Vulgar Latin up through the present.

Distributive: Dist:QDS; WCult:W

ITAL 37.04 - Italian Fairy Tales

We will study the rich and precocious Italian fairy-tale tradition, from the Renaissance to our times, and the ways in which its forms and contents have evolved. We will address questions concerning canon formation; the role of “marvelous” genres such as the fairy tale in socialization and the expression of national identity; and the appropriation of fairy-tale subjects and motifs by contemporary popular culture. We will also acquaint ourselves with a variety of critical approaches to the fairy tale, and consider some of the other European fairy-tale traditions, especially the French and the German.

Distributive: Dist:LIT; WCult:W
ITAL 37.06 - Italian Political Theory: From Dante and Machiavelli to Biopolitics

In his 2010 book *Living Thought*, philosopher Roberto Esposito claims not only that the work of contemporary Italian Theory is attracting increasing international attention, but also that knowledge of the Italian intellectual tradition is crucial for understanding the world around us. To comprehend and evaluate Esposito’s claim, this FRIT class explores Italian political thought from Dante and Machiavelli to the contemporary international debate on biopolitics led by figures such as Giorgio Agamben and Esposito himself. The class will be taught in English.

Distributive: Dist:TMV; WCult:W

ITAL 37.07 - Do the Right Thing! Creativity and Public Engagement in Italy and the United States

This course explores the confluence of art, literature, cinema, political engagement, and activism in the nineteenth, twentieth, and twenty-first centuries between Italy and the United States. Students will familiarize themselves with the most controversial and influential artists and intellectuals of these periods from both countries and they will also have the opportunity to spend two weeks collaborating with an Italian street artist on a project that integrates learning and awareness into practice.

Distributive: Dist:ART; WCult:W

ITAL 37.09 - Italian Ecologies: Italy and the Environmental Humanities

Instructor: Benvegnu

What can Italy teach us about our relationships with the nonhuman world in the current socio-environmental crisis?

In this course, we will focus on how Italian writers and activists, visual artists and philosophers engaged with real and fictional environments, and how their engagements reflect, critique, and animate the approach that Italian culture has had toward the physical environment and its ecology since late antiquity. Through a comparative and interdisciplinary approach, we will explore topics including climate change, environmental justice, animal ethics, and the potential relationships between socio-environmental degradation and epidemics. We will thus analyze how Italian ecological narratives fit within the current transnational debate occurring in the Environmental Humanities.

Our goal is to provide both an account of how Italian culture has shaped contemporary environmental thought and how Italian authors are presently developing unique ecological approaches to raise questions about the role of humans in a possible post-natural world.

This class is taught in English but with x-hours in Italian for majors/minors.

Distributive: Dist:LIT; WCult:W

ITAL 37.10 - Mafias

What is “mafia”? Organized crime, global big business, shadow state, deeply entrenched mentalities, glamorized myth, all of the above? This course focuses on Italian mafias (primarily the Sicilian Cosa Nostra) and, to a lesser degree, other Italian and Italian-American mafias. We will examine the conditions in which mafias emerged; those that make it possible for mafias to continue to thrive today; the social “codes” of the mafias, such as honor, omertà, and vendetta; and the forms that mafias take in the collective cultural imagination, in particular as they have been translated and represented in fiction and film on both sides of the Atlantic. In the process, we will explore Italian history and contemporary society and discuss topics such as the uses and abuses of power and the attraction of outlaw cultures.

This course is not open to students who have received credit for ITAL 07.07.

Distributive: Dist:INT or SOC; WCult:W

ITAL 85 - Independent Reading and Research

Instructor: LaGuardia

Students may arrange a program of study and research with individual faculty members. Open only to Italian, Italian Studies, and Romance Language Majors or by permission of the instructor. A proposal, signed by the faculty advisor, must be submitted to the Department for approval by the fifth day of classes of the term.

ITAL 88 - Senior Independent Reading and Research

Instructor: LaGuardia

A program of individual study directed by a member of the staff. Open only to senior Italian, Italian Studies, and Romance Language Majors (whose primary language is Italian) Majors. A proposal, signed by the faculty advisor, must be submitted to the Departmental Committee on Independent Studies and Honors Theses for approval by the fifth day of classes of the term.

Students are awarded one course credit for successful completion of this course at the end of the third term of study. Students subsequently register for ITAL-089 and continue with their coursework into a third term. Students do not register for a third term. A final grade will replace the “ON” for both ITAL-089 and this course upon completion of this course at the end of the third term of coursework.

ITAL 89 - Honors Seminar

Instructor: LaGuardia

Honors students will arrange a program of study and research during any term of the senior year on a tutorial basis with individual faculty members. A thesis, written in Italian, and a public presentation are the normal
culmination of this course. A proposal, signed by the faculty advisor, must be submitted to the Departmental Committee on Independent Studies and Honors Theses for approval by the fifth day of classes of the term.

Students are awarded one course credit for successful completion of this course. Students who have registered for ITAL-088 register for this course and continue with their coursework into a third term. Students do not register for a third term. A final grade will replace the “ON” for both ITAL-088 and this course upon completion of this course at the end of the third term of coursework.

Geography
Chair: Christopher Sneddon


To view Geography courses, click here (p. 383).

NEW GEOGRAPHY MAJOR, MINOR, AND MODIFICATION REQUIREMENTS (Required for 24s; optional for 21s, 22s, and 23s)

MAJOR:
Minimum number of courses: 10
1. One Introductory Course: GEOG 1.01 (p. 383), GEOG 2.01 (p. 384), GEOG 3.01, or GEOG 4
2. Two Methods Courses: GEOG 9.01 (p. 384), GEOG 11 (p. 385), or GEOG 12.01 (GEOG 12.01 is required for Senior Honors Thesis students)
3. Four Thematic Courses (breadth): one from each theme, Physical, Cultural-Social, Nature-Society, and GIS-Spatial Analysis
4. One Upper Division Course (depth): GEOG 60-80.99
5. One Culminating Experience Course: GEOG 90.01-90.05 (Advanced Seminar in Geography)

Thematic Courses:
• Physical: GEOG 13-20.99 (GEOG 1.01 (p. 383) if not taken as an Introductory Course)
• Cultural-Social: GEOG 21-36.99 (GEOG 2.01 (p. 384) if not taken as an Introductory Course)
• Nature-Society: GEOG 37-49.99 (GEOG 3.01 if not taken as an Introductory Course)
• GIS-Spatial Analysis: GEOG 50-59.99 (GEOG 4 if not taken as an Introductory Course, GEOG 9.01 (p. 384) if not taken as a Methods Course)

MINOR:
Minimum number of courses: 7
1. One Introductory Course: GEOG 1.01, GEOG 2.01, GEOG 3.01, or GEOG 4
2. One Methods Course: GEOG 9.01 (p. 384), GEOG 11 (p. 385), or GEOG 12.01
3. Four Thematic Courses (breadth): one from each theme, Physical, Cultural-Social, Nature-Society, and GIS-Spatial Analysis
4. One Upper Division Course (depth): GEOG 60-80.99 or GEOG 90.01-90.05 (Advanced Seminar in Geography)

Thematic Courses:
• Physical: GEOG 13-20.99 (GEOG 1.01 (p. 383) if not taken as an Introductory Course)
• Cultural-Social: GEOG 21-36.99 (GEOG 2.01 (p. 384) if not taken as an Introductory Course)
• Nature-Society: GEOG 37-49.99 (GEOG 3.01 if not taken as an Introductory Course)
• GIS-Spatial Analysis: GEOG 50-59.99 (GEOG 4 if not taken as an Introductory Course, GEOG 9.01 (p. 384) if not taken as a Methods Course)

PRIMARY MODIFICATION (Geography modified with another major):
Minimum number of Geography courses: 8
1. One Introductory Course: GEOG 1.01 (p. 383), GEOG 2.01 (p. 384), GEOG 3.01, or GEOG 4
2. Two Methods Courses: GEOG 9.01 (p. 384), GEOG 11 (p. 385), or GEOG 12.01 (GEOG 12.01 is required for Senior Honors Thesis students)
3. Three Thematic Courses (breadth): one from three different themes, Physical, Cultural-Social, Nature-Society, and GIS-Spatial Analysis
4. One Upper Division Course (depth): GEOG 60-80.99
5. One Culminating Experience Course: GEOG 90.01-90.05 (Advanced Seminar in Geography)
6. Four courses in other major in consultation with Geography Chair

Thematic Courses:
• Physical: GEOG 13-20.99 (GEOG 1.01 (p. 383) if not taken as an Introductory Course)
• Cultural-Social: GEOG 21-36.99 (GEOG 2.01 (p. 384) if not taken as an Introductory Course)
• Nature-Society: GEOG 37-49.99 (GEOG 3.01 if not taken as an Introductory Course)
• GIS-Spatial Analysis: GEOG 50-59.99 (GEOG 4 if not taken as an Introductory Course, GEOG 9.01 (p. 384) if not taken as a Methods Course)

SECONDARY MODIFICATION (Another major modified with Geography):
Minimum number of Geography courses: 5
1. One Introductory Course: GEOG 1.01, (p. 383) GEOG
2.01 (p. 384), GEOG 3.01, or GEOG 4
2. One Methods Courses: GEOG 9.01 (p. 384), GEOG 11 (p. 385), or GEOG 12.01
3. Two Thematic Courses (breadth): one from each theme, Physical, Cultural-Social, Nature-Society, and GIS-Spatial Analysis
4. One Upper Division Course (depth): GEOG 60-80.99 or GEOG 90.01-90.05 (Advanced Seminar in Geography)

Thematic Courses:
• Physical: GEOG 13-20.99 (GEOG 1.01 (p. 383) if not taken as an Introductory Course)
• Cultural-Social: GEOG 21-36.99 (GEOG 2.01 (p. 384) if not taken as an Introductory Course)
• Nature-Society: GEOG 37-49.99 (GEOG 3.01 if not taken as an Introductory Course)
• GIS-Spatial Analysis: GEOG 50-59.99 (GEOG 4 if not taken as an Introductory Course, GEOG 9.01 if not taken as a Methods Course)

URBAN STUDIES MINOR:
Minimum number of courses: 6
1. Two Required courses: GEOG 6.01 (p. 384) and GEOG 25
2. Two Geographic Perspectives Courses
3. Two Multidisciplinary Perspectives Courses

Perspectives Courses:
• Geographic: GEOG 28, GEOG 29, GEOG 46, GEOG 78
• Multidisciplinary: AMES 53, ANTH 58, ARTH 13, ARTH 52, COCO 5/GEOG 67.01 (p. 392), ECON 38, ENGS 44, HIST 32, PBPL 81.03, REL 30, SART 65

CLIMATE CHANGE SCIENCE MINOR:
Minimum number of courses: 6
1. One Foundation Course: GEOG 1.01 (p. 383), GEOG 15.01 (p. 385), EARS 14, EARS 15
2. Four Elective Courses: at least two Climate Drivers and Impacts and at least one Analysis
3. One Upper Division Course: GEOG 60, GEOG 61.01 (p. 391), EARS 78

Elective Courses:
• Climate Drivers and Impacts: GEOG 5.01 (p. 384), GEOG 16.01 (p. 385), GEOG 17.01 (p. 385), EARS 33, GEOG 18.01 (p. 385), GEOG 19.01 (p. 385), GEOG 62.01 (p. 392), EARS 34, EARS 70, EARS 75, BIOL 26, ENVS 15, ENVS 30
• Analysis: GEOG 9.01 (p. 384), GEOG 51, GEOG 54, GEOG 77, EARS 17, ENGS 20, BIOL 29, BIOL 59, COSC 1, MATH 40, MATH 46, MATH 50, MATH 70

OLD GEOGRAPHY MAJOR REQUIREMENTS (Optional for 22s and 23s)

MAJOR:
Minimum number of courses: 10

1. One Introductory Course: GEOG 1.01 (p. 383) or GEOG 2.01 (p. 384) (GEOG 1 or GEOG 3)
2. Two Methods Courses: GEOG 9.01 (p. 384), GEOG 11 (p. 385), or GEOG 12.01 (GEOG 11 or GEOG 50-59)
3. Three Breadth Courses: one from Physical, Cultural-Social, and Nature-Society
4. Three Additional Geography courses
5. One Culminating Experience Course: GEOG 90 (Advanced Seminar in Geography) required

Thematic Courses*:
• Physical: GEOG 5.01, 13-20.01; GEOG 1.01 (p. 383) if not taken as Introductory (GEOG 5, 8, 9, 31, 32, 33, 34, 35)
• Cultural-Social: GEOG 6.01, 21.01-36.01, GEOG 2.01 (p. 384) if not taken as Introductory (GEOG 2, 4.1, 17, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 41, 43, 45, 47, 61, 62, 81, 82)
• Nature-Society: GEOG 8.01, 37.01-49, GEOG 3.01 if not taken as an Introductory (GEOG 6, 12, 13, 14, 15, 16, 18, 40, 42, 44, 45, 48, 65, 67)

* Old course numbers are in italics

GEOGRAPHY HONORS PROGRAM:
Students apply to the honors thesis program by submitting a formal letter of application and a preliminary proposal to the department in the Junior Year Spring Term. The department offers preliminary acceptance to the honors program based on these documents and an assessment of major and overall GPA. Proposals and research plans are developed further in Geography 90 during Senior Year Fall Term, with research occurring anytime Junior Year Summer Term to Senior Year Winter Term. Thesis public presentation and defense occurs in Senior Year May, with the final draft due shortly after the defense.

PREPARATION FOR GRADUATE STUDY:
The Department of Geography is committed to encouraging and preparing students to pursue graduate studies in geography and related disciplines. Interested students should contact a geography faculty member to receive mentorship in major design and graduate school preparation.

GEOG - Geography Courses
To view Geography requirements, click here (p. 382).

GEOG 1.01 - The Natural Environment
Instructor: Magilligan

Our natural environment results from an array of climatic, biogeographic, and other physical processes that have changed dramatically over time in response to natural and human-induced disturbance. This course begins by presenting the fundamentals of atmospheric processes; then examines the physical controls on the resulting global
pattern of landforms, soils, and vegetation biomes across spatial and temporal scales; and ultimately explains the form and pattern of the earth's physical geography. Emphasis is also placed on demonstrating the role of human disturbance on these natural processes through shifts in global climate, land use, deforestation and other anthropogenic mechanisms. The media of presentation will be lecture and both field and laboratory exercises.

Distributive: Dist:SLA

GEOG 2.01 - Introduction to Human Geography
Instructor: Fox (Fall) Lopez (Winter)

The purpose of this course is to provide an understanding of how human societies organize their geographic space and why certain patterns emerge in the resulting human landscape. Principles of location, place, territoriality and geopolitics, migration, gender, economic change, and power are used to examine the geographic distribution of human activity. Geographic comparisons are drawn between North and South, and on global, regional, and local issues.

Distributive: Dist:INT or SOC; WCult:CI

GEOG 4.01 - Global Poverty and Care
Instructor: Lopez

This course explores causes and patterns of global poverty and links this with the urgent need for care and care ethics in our lives and in society broadly. We will focus particularly on how care work is devalued and globalized through international flows of care that contribute to global inequality. Through our analysis of global interconnections we will think about our responsibilities to care for those who are near and those who are across the globe.

Distributive: Dist:INT or SOC

GEOG 4.02 - Introduction to Geospatial Thinking
Instructor: Alvarez Leon

This course is an introductory survey into key concepts of geographical thought (e.g., place, space, and territory) and their interconnection with a range of geospatial tools and techniques (from paper maps to global positioning systems). By developing geospatial thinking, students will enrich their understanding of spatial data and technologies through concepts and debates in the field of geography. Conversely, command of geospatial tools and techniques will help integrate their use with other types of knowledge.

Distributive: Dist:SOC

GEOG 5.01 - Life in the Anthropocene
Most scientists believe we now live in The Anthropocene, a period defined by the unprecedented influence of human activity on the Earth and its ecosystems. This course will investigate the physical and ecological consequences of the Anthropocene. We will examine the global impacts of climate change and land-use change to better understand the future feedbacks between climate, ecosystems, and human societies.

Distributive: Dist:SCI

GEOG 6.01 - Urban Geography
Instructor: Domosh

This course examines the historical, cultural, and socio-economic geographies of cities. We begin by tracing the process of urban development from its inception over 5,000 years ago, to industrial modern cities, to postmodern urban forms, using case studies to illuminate certain key features and processes. We then focus on understanding the particular dynamics that shape cities today. Examples are widely drawn but particular attention will be given to American urban patterns and processes.

Distributive: Dist:SOC

GEOG 7 - First-Year Seminars in Geography

GEOG 8.01 - Introduction to International Development
Instructor: Freidberg (Fall) Fox (Spring)

Why are some countries rich and others so persistently poor? What can and should be done about this global inequity and by whom? We address these development questions from the perspective of critical human geography. Focusing on the regions of Latin America, Africa and Asia, we examine how development meanings and practices have varied over time and place, and how they have been influenced by the colonial history, contemporary globalization and international aid organizations.

Cross-Listed as: INTS 016

Distributive: Dist:INT or SOC; WCult:NW

GEOG 9.01 - Geographical Information Systems (GIS)
Instructor: Shi

Geographical information systems (GIS) are computer-based systems that process and answer questions about spatial data relative to concerns of a geographic nature. This course focuses on the basic principles of GIS, including data capture and manipulation, methods of spatial interpolation, and GIS trends and applications. The course is not intended to train students to be GIS operators; rather, to explain the fundamentals of this rapidly growing technology. A series of laboratory exercises will expose the students to GIS systems.

Distributive: Dist:TLA
GEOG 11 - Qualitative Methods and the Research Process in Geography
Instructor: Neely
Questions about how knowledge is produced, who produces it, and what "counts" as knowledge are fundamental to the research process. This course focuses on building understandings of qualitative research methods and methodologies employed by geographers to produce knowledge about social relations, human perceptions, and human-environment interactions. The course introduces several of the main qualitative methods available for geographic analysis and interpretation, and places these methods within broader questions of how research is conceived and carried out.
Distributive: SOC

GEOG 15.01 - Global Climate Change
Instructor: Winter
Climate is a fundamental driver of populations, economies, and cultures. Over the past century, humans have been modifying the atmosphere through the emission of greenhouse gases. This course will provide an overview of the Earth’s climate system and the physical basis, impacts, and societal dimensions of climate change.
Distributive: Dist:SCI

GEOG 16.01 - A Climate for Human Security
Instructor: Mankin
This course examines the extent to which the biogeochemistry of the climate system and global warming determines human welfare and security. Using original climate analyses and critical evaluation of the scientific literature, we will examine topics such as the consumptive and paradoxical dimensions of the climate problem, climate and political violence, climate mitigation, climate adaptation, and climate geoengineering.
Distributive: Dist:SCI; WCult:W

GEOG 17.01 - Earth Surface Processes and Landforms
Instructor: Neely
This course is an introduction to geomorphology – the study of the mechanisms that shape the Earth’s surface. Students will learn about river, glacial, hillslope, and wind-driven processes, and the resulting landforms and landscapes they produce. We will also delve into how landscapes respond to and affect tectonics and climate, and the implications for understanding the history of the Earth’s surface and its future. The techniques and tools we use as geomorphologists range from direct observations to chemical, physical, mathematical, and isotopic approaches, all of which we will explore in this course. The processes we discuss are not confined to the Earth, and as such, we will also touch on the geomorphic evolution of other planetary bodies as well.
Not open to students who have received credit for GEOG 033.
Cross-Listed as: EARS 033
Distributive: Dist:SLA

GEOG 18.01 - Climate Extremes On A Warming Planet
Instructor: Mankin
Somalian drought and famine, Greenland wildfires, monsoonal floods and landslides in Southeast Asia, and the brutal hurricanes and post-storm neglect of Puerto Rico - climate related disasters such as these cost the U.S. alone a record of $300B in 2017. With the world warming an order of magnitude faster than any time in the last 65 millions years and with more people, material, and money occupying the same space than ever before, it's unclear whether such climate impacts are part of a geophysical trend or reflective of our social, political, and economic choices.
Distributive: Dist:SCI

GEOG 19.01 - Climate Change and the Future of Agriculture
Instructor: Winter
The global agricultural sector faces the significant challenge of feeding a population projected to rise to 9 billion by mid-century under an evolving climate. This course will explore the physical geography of agricultural production systems throughout the world with an emphasis on the interactions between crops, climate, water, soils, and technology.
Distributive: Dist:SCI

GEOG 20.01 - The Global Food and Energy Landscape
Instructor: Winter
Humans are dynamically transforming landscapes on rapid time frames and enormous spatial scales. In this course, we will investigate how and why humans transform landscapes and trade-offs between food, energy, and the environment. We will examine the socioeconomic and environmental drivers and consequences of these land-use changes. We will discuss topics such as the forest transition, land sparing and land sharing, land scarcity, and indirect land-use change; and highlight how globalization affects these processes. We will enhance our readings by examining spatial data to demonstrate how these processes unfold across different landscapes.
Distributive: Dist:SCI

GEOG 21.01 - Global Health and Society
Instructor: Fox (Fall & Spring) Adams/Butterly (Winter)
Only a few decades ago, we were ready to declare a victory over infectious diseases. Today, infectious diseases are responsible for the majority of morbidity and mortality experienced throughout the world. Even developed countries are plagued by resistant "super-bugs" and antibiotic misuse. This course will examine the epidemiology and social impact of past and present infectious disease epidemics in the developing and developed world. The introduction of drugs to treat HIV/AIDS in sub-Saharan Africa will be considered from political, ethical, medical, legal and economic perspectives. Lessons from past and current efforts to control global infectious diseases will guide our examination of the high-profile infectious disease pathogens poised to threaten our health in the future. Open to all students. Limited to 35 students.

Cross-Listed as: INTS 018
Distributive: Dist:INT or SOC

GEOG 22.01 - New England Landscapes and Environments
Small enough to know well, New England boasts an enormous variety of human and physical features in a dynamic setting of change. In this class we focus on the physical aspects of the landscape, learning about its geology, flora, fauna, and climate as they set the stage for and are affected by human activities. The class includes two field trips, visitors, films, and readings from a variety of sources.

Distributive: Dist:SCI

GEOG 23 - Power, Territoriality, and Political Geography
Territoriality, the geographic expression of power, is one of the most common strategies for exercising political control. This course explores the interaction of geography and politics, including the origin and function of nations and states, policing and social control, federalism, the role and status of racial and ethnic minorities, political representation and electoral redistricting. Through such topics, the class addresses questions regarding the nature of power, identity, democratic theory and the relationship between the individual and the state. We will focus particular attention on issues of scale, or how the application of territorial strategies at different spatial levels affects political relationships.

Distributive: SOC

GEOG 24 - American Landscapes and Cultures
Instructor: Domosh
Someone once said that Americans are a people in space rather than a people in time. A political configuration of relatively recent vintage, the United States, nevertheless, occupies a vast amount of space. The occupation and ordering of that space has produced distinctive landscapes with many regional variations. This course will examine the formation of these cultural landscapes beginning with those produced by Native Americans, and following the settlement process up to contemporary, post-modern America. Along the way, we will explore, among other things, the development of such American landscape elements as grid-pattern towns, cowboy ranches, skyscrapers, shopping malls, and corporate office parks.

Distributive: Dist:SOC; WCult:CI

GEOG 25 - Social Justice and the City
Instructor: Collins
This course explores issues of social justice and cities in terms of the spatial unevenness of money and power within and among cities, between cities and their hinterlands, and between cities of the world. We will examine how multiple dynamic geographic processes produce spatial and social inequalities that make cities the locus of numerous social justice issues. We will also look at how urban communities and social groups are engaged in working for social change.

Cross-Listed as: SOCY 49.22; WGSS 37.03
Distributive: Dist:SOC; WCult:CI

GEOG 26 - Women, Gender and Development
This course examines gender as it relates to both women and men and as constituted by multiple factors such as place, space, class, sexuality, age, race, ethnicity, nationality, and culture-what some call categories of "difference." We will explore how these categories of difference shape women's and men's daily lives, our institutions, the spaces and places we live in, and the relationships between social groups in different places and between different places in the world.

Cross-Listed as: WGSS 30.01
Distributive: Dist:SOC; WCult:CI

GEOG 27 - Carceral Geographies: Explaining Mass Incarceration in the US
Instructor: Scott
Why are there so many people incarcerated in the United States and why are so many people in the US and beyond calling for an end to police violence, some even for the abolition of policing? Is mass incarceration an inevitable product of slavery and Jim Crow? Why did prisons expand in the United States as crime rates were going down? Was it the War on Drugs, or the long term effects of housing discrimination?

Cross-Listed as: AAAS 90.09 WGSS 37.04
Distributive: Dist:SOC
GEOG 28 - Immigration, Race, and Ethnicity
Instructor: Wright
This course examines 20th century immigration to the United States and pays special attention to issues of race and ethnicity. The course begins with a brief history of US immigration and then thematically covers specific topics such as economic impacts and costs, social mobility, citizenship, transnationalism, assimilation, and religious issues and their relationship to the immigrant experience. We feature nativist reactions to immigration and highlight differences within and between Latino, Asian, and European groups throughout the course.
Distributive: Dist:SOC; WCult:CI

GEOG 29 - Global Cities
Instructor: Collins
This course examines contemporary urbanization in a global setting - paying attention to the intersection of numerous global and local forces (political, economic, historic and cultural) shaping the planning and design (or lack thereof) of city spaces in the global south and its implications for city residents. Utilizing examples from the Middle East, India, China, Latin America and Africa, we will explore how various demographics within these places experience and navigate the dynamically changing city spaces.
Distributive: Dist:INT or SOC; WCult:NW

GEOG 30.01 - Jews and Cities: Urban Encounter and Cultural Transformations
The Jewish diasporic encounter in Europe took place almost entirely in an urban context. The legal, political and cultural framework of the European city shaped the trajectory of the Jews in a profound and lasting way, and cities and metropolises continue to shape Jewish civilization in many ways. From the Venetian ghetto to the Lower East Side, from the pletzl in Paris to the vast neighborhoods in the first Jewish metropolises in Eastern Europe, the different settings shaped Jewish civilization.
This course proposes a close reading of this urban context: what were the legal and political foundations, how did Jews organize themselves in cities, what economic opportunities did they develop?
This class will use a broad range of materials: literary texts, the press, scholarly analysis (historical, sociological, anthropological), film, art and art history.
Cross-Listed as: HIST 74.14/JWST 12.01
Distributive: Dist:SOC; WCult:CI

GEOG 31 - The Local and Global Biosphere
This course examines the spatial and temporal patterns underlying the distribution of the Earth’s living organisms (plants, animals and microbes) as well as the biological and physical processes responsible for these patterns. The topics covered will include species range limits, biodiversity, island biogeography, vegetation dynamics/disturbance ecology, human impacts on living organisms, and conservation. The course will emphasize field-based learning, with several class meetings devoted to mapping vegetation patterns and observing animal behaviors in the local area.
Distributive: SLA

GEOG 32 - The Physical City
Cities are not only home to most of humanity, but also unique and varied physical environments. This course will introduce students to these environments and the challenges of making them both livable and sustainable. It will cover three subject areas: 1) the biophysical features of cities, 2) environmental problems associated with urbanization, and 3) approaches to addressing these problems. In order to appreciate the geographic diversity of cities, the course will examine a wide range of urban environments across the world.
Distributive: SCI

GEOG 32.01 - Economic Geography and Globalization
Instructor: Glucker
The new global economy has become integrated across national boundaries, profoundly altering the fortunes of countries, regions, and cities. This course addresses questions that stem from these changes: for example, why do industries locate where they do? What is the impact of foreign investment on local and regional economies? Why are rates of international migration increasing? What can workers and communities do after disinvestment and deindustrialization has occurred? Particular attention is devoted to the United States and the effects on minorities and labor of differential regional economic expansion, renewal, and decline.
Distributive: Dist:SOC

GEOG 33.01 - Geopolitics and Third World Development
Political geographers have recently recovered a critical understanding of "geopolitics" in order to highlight how geographical representations - and the construction of spaces and places - are a constitutive part of politics from the global to the local scale. In keeping with this, this course will examine the mutual constructions of places, identities, and politics from a Third World perspective. The course will begin with an overview of geopolitical discourses that underpinned the processes of Western imperialism and colonialism such as "civilization" and "social darwinism." It will then examine contemporary geopolitical (dis)orders through the lens of topics such as globalization, gender, environmental security,
humanitarian aid, and terrorism. Finally, the course will examine alternative geopolitical imaginations as constructed through social movements and grassroots politics.

Distributive: Dist:INT or SOC; WCult:NW

GEOG 35.01 - Geographies of Violence
Violence appears to be a constant problem for human society, although its forms, mechanisms and objects change over time. The last decade has seen the unprecedented increase of the use of targeted killing as the US has expanded its drone strike operations around the globe, and events such as those in Ferguson and Charlottesville have led police brutality and racialized violence to remerge as national concerns. The aim of this course is to study the problem of violence through a geographic lens. It explores a range of topics relating to violence at three scales: the global, the national, and the body. The goal is to interrogate how each scale of unit of analysis reveals different ways of understanding violence and to draw connections between them; and the course will focus particular attention on the historical and political geographies of Western violence. Topics include drone warfare, humanitarian intervention and peacekeeping, police, fascism, the ethics of killing, slavery, colonialism, and the politics of nonviolence.

Distributive: Dist:SOC

GEOG 36.01 - The Czech Republic in the New Europe
Instructor: Neely
This course seeks to develop an understanding of the physical morphology and cultural landscape of the contemporary Czech Republic. Special attention will be given to the dialectic of transnational integration and decentralist reaction common in Europe today.

Distributive: Dist:SOC; WCult:W

GEOG 37.01 - Social and Physical Landscapes of the Czech Republic
Instructor: Neely
This course involves field trips led by the members of the Charles University faculty, designed in conjunction with lectures in GEOG 47. The excursions will include topics such as urban development and housing, international migration, health geographies, the environmental effects of energy generation production, and foreign direct investment. Employing short writing assignments and collaborative presentations, the course will expose students to variegated landscapes of central Europe and to potential topics for independent research.

GEOG 38 - The Postcolonial City
What is a postcolonial city? What does the term post imply in the postcolonial? Does it mean a celebration of the end of colonialism? This course invites students to critically examine the term post to interrogate mutations of colonial trajectories in the postcolonial present. Far from being a monolithic entity, the postcolonial city should be understood as a historically specific and locally situated outcome of global imperialism. How has the postcolonial city engaged the reproduction of colonial inequalities in and through the built environment? How can we conceptualize “space” not as an abstract and passive container, but as an active agent that has played a constitutive role in giving colonialism its form?

Distributive: Dist:SOC

GEOG 39.01 - Environmental Justice
Instructor: Greenleaf
Around the world, people suffer because of environmental degradation, from sickening industrial pollution to unnatural disasters to disruptive climate change. This course examines how environmental harms are unequally experienced, as well as how communities organize to protect themselves. We will discuss the concept of “environmental justice” as it has developed through social movements in the United States and elsewhere. We will also explore it as an analytical category that (a) explains how inequality manifests environmentally and (b) enables critical thinking about concepts like the “environment” and mainstream environmentalism and environmental policy. Drawing from Anthropology, Geography, History, Sociology, and other disciplines, we will focus on the lived experiences of environment justice and injustice around the world. Not open to students who have received credit for GEOG 068.

Cross-Listed as: ANTH 12.26 GEOG 068
Distributive: Dist:SOC

GEOG 40.02 - Catastrophe and Human Survival
Climate change, terrorist attacks, genocides, contagious outbreaks, and economic collapse preoccupy narratives about human survival. As a result, we are told that our lives are increasingly unstable and precarious—our futures, uncertain. Examining historical evocations of catastrophic events, and how future calamities therefore become imagined, this course examines the relationship between thinking about the future as a yet undetermined sequence of events, and the ways that humans attempt to secure their own survival, or become more resilient to the inevitable. Drawing texts from geography, international relations, literature, political philosophy, and ethics, this course surrounds the phenomena of catastrophe and human survival to ask: What does it mean to live in an age of extreme instability?

Distributive: Dist:SOC
GEOG 40.03 - Race, Space, and Nature
Instructor: Scott
Ideas of racial difference are frequently advanced as "natural" truths about the world, linked to normative conceptions of environmental relations. Reciprocally, racism—as a set of deadly ideological and material practices articulated around purported group differences—has profoundly shaped conceptions of non-human nature. This course asks how race is inflected in the politics and practices through which humans interact with the "natural" world, and explores the implications for contemporary movements and mobilizations for environmental justice.
Cross-Listed as: AAAS 28.10
Distributive: Dist:SOC

GEOG 42 - Water Policy and Politics
Instructor: Magilligan
This course is designed to provide students with a general background to the issues confronting water resource management. The course covers the political, social and legal aspects confronting effective water policy decision making. One of the goals is to demonstrate that the technical aspects of hydrology occur within a socio-political arena. The material also covers the environmental aspects of water issues and the manner in which these issues are handled by regulatory agencies and the legal sector.
Cross-Listed as: JWST 067
Distributive: Dist:INT or SOC

GEOG 43 - Food and Power
Instructor: Freidberg
In a world glutted with food, why do millions still suffer chronic hunger? In an international community committed to free trade, why is food the most common source of trade wars and controversies? In a country where less than five percent of the population farms, why does the "farm lobby" remain so politically powerful? In societies where food has never been faster or more processed, why are organic and "slow" foods in such demand? These are among the questions this course will consider, drawing on the insights of both political economy and cultural analysis.
Distributive: Dist:INT or SOC; WCult:W

GEOG 44 - Environment and Politics in Southeast Asia
Instructor: Sneddon
Over the past several decades, the people and environments of Southeast Asia have confronted a host of political, economic and cultural processes commonly grouped together under the heading "development". As witnessed by recent media reports detailing massive forest fires in Indonesia and dam controversies in Malaysia and Thailand, these development processes have resulted in drastic transformations in the landscapes, forests, and river systems of the region. These processes have likewise produced dramatic alterations in the livelihoods of the people who depend on and interact with the region's ecological systems.
Cross-Listed as: ENVS 44
Distributive: Dist:INT or SOC; WCult:NW

GEOG 45 - Exploring Nature and Culture in New England
From abandoned stone walls to red-brick mill towns, segregated cities to grass-lawn suburbs, the people and places of New England offer interesting lessons about the interactions between culture and nature. This course introduces students to landscape studies in geography by focusing on Dartmouth’s immediate surroundings and its regional setting. Includes several required field trips.
Distributive: Dist:SOC; WCult:NW

GEOG 46 - Urbanization and the Environment
Over half the world's population live in urban areas. The 1992 Rio Summit raised awareness of the potentially serious environmental, health, and social implications of continuing urbanization. This course explores the environmental effects of urbanization from an international comparative perspective. How do the environmental consequences of urbanization in the developing world (Global South) differ from those associated with the developed world (Global North)? How are notions of environment socially constructed as "nature" and how does this translate into political action in different places? The course critically assesses the ability of planners to make lasting improvements in the urban environment.
Cross-Listed as: PBPL 081
Distributive: Dist:INT or SOC

GEOG 47.01 - Political Ecology
Instructor: Sneddon
Political ecology is an approach to human-environment relations that links a broad understanding of biophysical systems (e.g., tropical forests, coastal ecosystems, river basins) to knowledge regarding the political and economic forces that drive ecological change. Drawing on examples from North America, Southeast Asia, Africa and other regions, this course employs a political ecology framework to examine contemporary debates over urbanization, water resources, the role of science in environmental conflicts and the cultural landscape.
Cross-Listed as: ENVS 067
Distributive: Dist:INT or SOC
GEOG 48 - Indigeneity and Development

This course asks how historical and contemporary development efforts have shaped indigenous communities. What ideological and technical tools have been used to transform native territories? How have national development programs shaped experience in settler-colonial contexts? Finally, how has native sovereignty been articulated through indigenous development efforts? We will draw on examples from the Americas, Africa, and Asia to understand how place-based development has been part of global networks of imperialism and resistance.

Cross-Listed as: NAS 30.14
Distributive: Dist:SOC

GEOG 49 - Wilderness, Culture and Environmental Conservation

Instructor: Magilligan

The purpose of this course is to describe and examine the manifold ways that environmental alterations have occurred - over both geologic and historical timescales. Considerable research over the past several decades has shown that anthropogenic disturbance has significantly modified natural processes frequently leading to degraded conditions. The goal of the course is first to establish that shifts in climate, vegetation, and landscapes are "natural" and have occurred over geologic time and that the timing and magnitude of these shifts provides the necessary background to evaluate the type, magnitude, and frequency of anthropogenic disturbance. The second, and major theme is to present and examine the types of human-induced changes in biotic, atmospheric, and terrestrial conditions (e.g. logging, grazing, urbanization), and to evaluate the social and management issues resulting from these anthropogenic disturbances. Lastly, the third part of the course will focus on the human dimensions of global change by exploring the social aspects of environmental change. In the last part of the class, we will focus on how global environmental changes generate impacts at the local scale, and how small-scale transformations propagate into large-scale global environmental issues.

Cross-Listed as: JWST 030
Distributive: Dist:SOC

GEOG 50.02 - Web Mapping and Application

This course is an introduction to creating web mapping applications on the Internet and serves as an introduction to building map-based web applications. Students will design, develop, and implement web mapping applications using ESRI software and open source software. Students will work with web authoring tools, learn basic javascript, and work with basic visualization tools. Content will focus on the theories and principles behind web mapping, distributed and cloud computing, graphic design, application building, and critical aspects of web-based cartography.

Distributive: Dist:TAS

GEOG 50.03 - GIS Programming and Databases

This course is an introduction to Python programming and database (SQL) programming and design for intermediate Geographic Information Systems (GIS) users. This course teaches students to design and write clearly structured programs in Python in the ArcGIS environment. Students will develop programs to manage geospatial data, perform geoprocessing analysis to solve spatial problems, and automate mapping and visualization tasks. This course emphasizes the challenges and uniqueness of spatial data organization from specific database models to national spatial data infrastructures. Students gain theoretical and practical experience in designing, implementing, and managing geo-relational and object-relational databases.

Distributive: Dist:TAS

GEOG 51 - Remote Sensing

Instructor: Palucis

Remote Sensing involves the acquisition of information about the earth from airborne and satellite sensors. Both vector (GIS and GPS) and raster (image) data will be treated with an emphasis on their interpretation for various geographic and earth science applications. A significant part of the course will be devoted to practical exercises; there will be a final project involving the computer processing and interpretation of these data.

Prerequisite: One course from EARS 1, EARS 2, EARS 3, EARS 4, EARS 5, EARS 6, EARS 8, EARS 9, or GEOG 3.

Cross-Listed as: EARS 65
Distributive: TLA

GEOG 53 - Critical Mapping and the Geohumanities

Maps are amongst the most important tools for understanding the world geographically. But maps are not simply neutral diagrams that display factual data. In this course, we will take a critical approach to maps, examining how they are made, what kinds of ideologies are embedded within them, and how they circulate in society. We will explore the emerging field of GeoHumanities, which connects maps and spatial thinking to qualitative questions about aesthetics, culture, imagination, and social life. We will also learn how new types of geographic engagements, using digital methods, interactive technologies, and novel data sources, offer both promises and pitfalls for experimenting with representations of society and space.

Distributive: Dist:SOC
GEOG 54 - Geovisualization  
Instructor: Chipman  
Geovisualization is the science and art of visualizing and interpreting spatial information. Students will learn the principles and methods of visual analysis of geographic data, using geospatial tools for visual communication and visual thinking. Beginning with the traditional principles of cartography, the course will then cover advanced topics such as flows and networks, 3D landscapes and spaces, animation, and interactive web-based geovisualization. Class time will be divided between discussion of principles and practices, and hands-on laboratory activities.  
Prerequisite: GEOG 50 or any statistics course  
Distributive: Dist:SLA

GEOG 55 - Critical Analysis in GIS  
This course develops the elements of critical analysis using geographic information science (GIS). While using GIS as a method to ask questions and analyze geospatial data, students will also explore the ways that GIS is shaped by its underlying assumptions, embedded politics, societal impacts, knowledge-generation capabilities, and other limitations. Lab sessions will incorporate learning GIS analysis in the open source statistical package “R”, in tandem with readings and discussions about the theoretical and social dimensions of GIS.  
Cross-Listed as: EARS 022  
Distributive: Dist:TAS

GEOG 56 - The Geographies of Health and Disease  
Instructor: Shi  
This interdisciplinary course introduces the principles and methods used to understand health and disease in the geographical context. Topics include monitoring epidemics, tracking disease outbreaks, identifying environmental factors that may promote or hinder health, and studying geographic impediments in accessing health care services. Learning takes place through lecture and discussion, readings of selected manuscripts, hands-on experience in the GIS lab, assignments, and completion of a term project. Prerequisite: GEOG 50 or professor's permission.  
The new prerequisite will begin Spring 2016.  
Prerequisite: GEOG 50  
Distributive: TAS

GEOG 57 - Urban Applications of GIS  
Instructor: Shi  
This course is about how to use GIS technology to solve urban problems. The application problems that will be discussed in the class are from areas including urban planning and design, public administration, business decision-making, environment assessment, land use change, and social and political issues. The data, spatial analytical techniques, and GIS software that have been used in these applications will be examined through studying real-world examples. The class contains three components: the lectures, the lab exercises and the term project. The software packages used for the lab exercises include ArcGIS and MapInfo.  
Prerequisite: GEOG 50  
Distributive: TLA

GEOG 60 - Earth System Modeling  
Instructor: Mankin  
What will Earth look like in 2100? Scientists use the world’s most sophisticated computer programs—climate models—to answer such questions. This applications-based class introduces the theory and practicalities of process-based modeling for climate science. We will employ a range of models, from 0-dimensional to fully-coupled global-scale Earth System Models. Focusing on climate change, we will learn the potentials and pitfalls of modeling complex systems and how to evaluate models and their societal relevance.  
Distributive: Dist:SCI

GEOG 61.01 - Hydroclimatology  
Instructor: Winter  
Interactions between energy and water shape the natural environment and society. This course will examine the spatial and temporal dynamics of the hydrologic cycle, focusing on radiative and turbulent fluxes, precipitation, evapotranspiration, vegetation, soil moisture, runoff, and anthropogenic influences. Lectures will introduce key topics, followed by student-led discussions of relevant journal articles, and a research project will allow students to apply the concepts learned in class to a topic of interest.  
Distributive: Dist:SCI

GEOG 62 - Black Women’s Activism: 1970 – Present  
In this course we will explore the political, intellectual and cultural production of Black women beginning with the liberation moment of late 1960s and early 1970s. We will read creative, scholarly, and activist writing of Black women of all genders from 1970 to the present. How does Black women’s activism constitute a political intellectual tradition that impacts how we do research and pose questions?
Cross-Listed as: AAAS 88.15 WGSS 40.04  
Distributive: Dist:SOC; WCult:CI

**GEOG 62.01 - River Processes and Watershed Science**  
Instructor: Magilligan  
Role of surface water and fluvial processes on landscape formation; magnitude and frequency relationships of flood flows; soil erosion, sediment transport, and fluvial landforms. This course examines the links between watershed scale processes such as weathering, denudation, and mass wasting on the supply of water and sediment to stream channels on both contemporary and geologic timescales and further evaluates the role of climate change on the magnitude and direction of shifts in watershed and fluvial processes. Not open to students who have received credit for GEOG 035.

Cross-Listed as: EARS 071  
Distributive: Dist:SLA

**GEOG 65.01 - Global Movements: Migrants, Refugees, and Diasporas**  
Instructor: Wright  
The focus of this course is the voluntary and involuntary movement of people around the globe. Questions of borders, nativism, transnationalism, the global economy, and legality thread will through our discussions as we consider the factors shaping decisions to leave a home or homeland. Creative works, case studies, and theory regarding these topics will inform and animate our discussions.

Distributive: Dist:INT or SOC

**GEOG 66 - Geopolitics of Humanitarianism**  
Instructor: Lopez  
In this course, students will critically examine the dramatic changes to the geopolitics of humanitarian intervention, development, and capacity-building since the end of the Cold War. The end of the Cold War saw the transformation of humanitarianism from a marginal position to the center of international policy and a rapid increase in militarized humanitarian interventions. The “new humanitarianism” led to a change from needs-based to rights-based humanitarian interventionism, transforming humanitarian action from short-term emergency aid to long-term involvement, assistance, and capacity building.

Distributive: Dist:SOC

**GEOG 67.01 - Scenes from the City: Urbanism and Modern American Visual Culture**  
From silent films to Mad Men, the American city has been the site through which “modern” identities have been imagined and created. This course draws on Cultural Geography and Film and Media Studies in order to interrogate this development. Through a variety of readings and screenings of films and TV shows, we will be examining American downtowns, suburbs, and homes as sites for the construction of classed, racialized, sexualized and gendered identities in three different time periods: the early 20th century, the post WWII era, and the contemporary period. We will interrogate such topics as: the real and imagined role of “shopping” women and gender in the shaping of modern downtowns; the relationship between the American suburb, new sexual identities and the film Pillow Talk; and how a particular nostalgia for the past that has led to the popularity of such shows as Mad Men can also be seen on the streets of Hanover (neo-traditional urbanism).

Cross-Listed as: FILM 47.21  
Distributive: Dist:SOC; WCult:CI

**GEOG 68.01 - Witchcraft and Biomedicine**  
Instructor: Neely  
This course examines the question of health, what it is, who it’s for, and who decides. By focusing on three themes — becoming a doctor or healer; health, illness, and suffering; and health as a nature-society question — through both biomedicine and witchcraft, we approach health from multiple angles. So doing, we will learn about a number of different methodological approaches and theoretical orientations, learning not just about specific case studies, but also about how geographers and related social scientists ask and answer questions.

Distributive: Dist:SOC

**GEOG 71 - Racial Geographies: Race and the Politics of Place**  
Instructor: Scott  
This course will explore various themes surrounding the ways in which race shapes the way we understand ideas of place. With a focus on Africa and its diaspora, the course looks at the movement of people and ideas inherent in the concept of diaspora and reflects on how people also reshape social worlds that challenge the way we commonly understand the world to be divided (i.e. by political territories like “countries” or by physical geographies like “continents”). The goal of the course is to start with the concept of “Blackness” and unpack the complexity of various other racial and spatial categories like “Sub-Saharan Africa” “Arab North Africa” “the West” and “diaspora.” The three general themes of territory, flows, and space/futurisms, will be explored in relation to the way they are experienced by people in everyday life, therefore the readings will primarily be ethnographic, following African descendant communities in Africa, Europe and the Americas. However, we will tackle these issues through history and fiction writings as well. Not open to students who have received credit for GEOG 063.
GEOG 74 - Moral Economies of Development
Instructor: Freidberg
During the past quarter century, the gap between the world's richest and poorest regions has steadily widened, even as technological advance has shrunk the distances between them. This class begins by examining how globalization has shaped awareness and expressions of care for distant strangers. It then focuses on the moral economies underlying practices such as Fair Trade, corporate social responsibility, and transnational labor justice campaigns. Some background in international development is recommended.
Distributive: Dist:INT or SOC

GEOG 77 - Environmental Applications of GIS
Instructor: Chipman
This course uses geographic information science (GIS) to analyze environmental systems. Students will learn advanced GIS techniques such as topographic analysis, spatial modeling, spatial statistics, remote sensing, and spatiotemporal data analysis. These methods will be explored through a wide variety of applications, including watershed hydrology, water quality, vegetation, land use/land cover, climate, wildlife ecology, and natural hazards. In lectures, laboratory exercises, and class projects, students will gain experience in designing and implementing GIS-based solutions to environmental problems.
Cross-Listed as: EARS 077
Distributive: Dist:TLA

GEOG 78 - Geospatial Technologies and Society
Beyond mapping the world, how do geospatial technologies help shape it? This course analyzes the political, economic, social, and cultural implications of geospatial data, media, and technologies. Topics covered include self-driving cars, Google Maps, and big geospatial datasets like satellite imagery repositories. Drawing on a variety of conceptual frameworks, students will learn how to evaluate geospatial technologies not only through their technical underpinnings, but also via their space-making processes and embeddedness in our everyday lives.
Distributive: Dist:SOC

GEOG 80 - Seminar in Geography
This course focuses on topics in advanced human geography that are not regularly taught as part of the curriculum. Course content will vary and reflect the interests and expertise of the instructor.
Prerequisite: GEOG 1 or permission of the instructor.
Distributive: SOC

GEOG 80.05 - 10 Weeks, 10 Professors: #BlackLivesMatter
This collaboratively taught course seeks to answer the call of activists around the country to examine racialization, state violence, and inequality in the context of the #BlackLivesMatter movement. To begin, it offers a context for the events in Ferguson, Missouri in 2014. Then, it situates those events in a broader history of race and racism in the United States. Finally, the course highlights black feminist and queer approaches to questions of trauma, community, politics, and survival.
Distributive: Dist:SOC; WCult:CI

GEOG 80.06 - Women in Asian Cities
We live in a time of increasing urbanization and globalization, paralleled with prevailing poverty and uneven access to infrastructure. In this course, we will explore these issues through a focus on women across Asia. We will also examine how politics of race, class, caste, religion, and migration status shape urban experiences for these women. Major thematic areas for this course include migration, informal economies, mobility, culture, and urban nature. The class will draw on academic scholarship, newspaper articles and popular culture to introduce gendered perspectives on cities across Asia including Istanbul, Tehran, Mumbai, Hong Kong, and Manila.
Cross-Listed as: ASCL 70.17 WGSS 37.06
Distributive: Dist:SOC; WCult:CI

GEOG 80.09 - Humanitarian Emergencies and Geographic Methods
Instructor: Poole
Over 134 million people worldwide are affected by humanitarian emergencies. Geographic methods (e.g. spatial statistics, remote sensing, and mapping) answer questions about the role of place in humanitarian emergencies. We will 1) investigate the use of spatial data and 2) identify challenges that must be addressed to generate technically rigorous and ethical conclusions in humanitarian environments. Critical theory and empirical case studies will inform our discussions. No prior experience with geographical information systems is required.
Distributive: Dist:TAS
GEOG 80.10 - COVID-19 and the Social Life of Epidemics

This course interrogates the COVID-19 pandemic, putting it in broader historical, geographic, and scientific contexts. To do so, it focuses on different disease epidemics, including the Plague, influenza, cholera, and HIV/AIDS. A COVID-19 journal gives students a chance to think, reflect, and process what they are learning and their experiences together. Through this course, students will better understand science, biomedicine and other healing systems, the medical system, the United States, and global health today.

Distributive: Dist:INT or SOC

GEOG 85 - Senior Thesis I

Description

A thesis on a geographic topic selected by the student with the instructor's approval.

Students are awarded one course credit for successful completion of this course at the end of the second term of study. Students subsequently register for GEOG 87, and continue with their coursework into a second term. A final grade will replace the “ON” for both this course and GEOG 87 upon completion of GEOG 87 at the end of the second term of coursework.

Prerequisite: Permission of the instructor and the Chair.

GEOG 86 - Independent Study in the Czech Republic

Instructor: Neely

This course offers the qualified student an opportunity to research a topic of special interest in the Czech Republic under the joint direction of a Dartmouth staff member and Charles University staff. This course is taken as part of a three course sequence by FSP participants (Geography 47, 81, 82).

Distributive: Dist:SOC; WCult:W

GEOG 87 - Senior Thesis II

Instructor: The faculty

A thesis on a geographic topic selected by the student with the instructor's approval.

Students are awarded one course credit for successful completion of this course. Students who have registered for GEOG 85 register for this course and continue with their coursework into a second term. A final grade will replace the “ON” for both GEOG 85 and this course upon completion of this course at the end of the second term of coursework.

Prerequisite: permission of the instructor and the Chair. Open to seniors, and required of honors majors

GEOG 90 - Research in Geography

Instructor: Domosh, Freidberg: 21F, 22F Lopez: 22W, 23W

This culminating experience exposes students to the elements of conducting geographic research. Students synthesize their knowledge of geography by exploring the epistemological and methodological foundations of geographic research. The course involves the preparation of a research proposal on a topic each student chooses in consultation with the geography faculty.

Prerequisite: GEOG 1 or GEOG 3, two courses from GEOG 11, GEOG 50 to GEOG 59, or permission of the instructor.

German Studies

Chair: Klaus Mladek

Professors G. Gemünden, I. Kacandes, E. R. Shookman; Associate Professors V. Fuechtner, K. Mladek, Y. Komska, P. McGillen; Senior Lecturer/Research Assistant Professor N. Ostrau; Senior Lecturer M. McGillen, H. Denzel; Senior Adjunct Lecturer E. Miller; Neukom Postdoctoral Fellow L. Chapot

To view German Studies courses, click here (p. 396).

Requirements for the Major

Prerequisite : Two of the following: GERM 6 or GERM 10.00; GERM 10.01, GERM 10.02, and GERM 10.03; or permission of the Chair. [Starting with the Class of 2020: Two GERM courses (GERM 10.00, GERM 10.01 etc.); or permission of the Chair.] Students majoring in German Studies design an individual program in consultation with a departmental adviser.

The Department of German Studies offers three routes to the major:

1. Major A focuses on literary and non-literary texts in their historical and intellectual contexts, comprising courses offered by the Department of German Studies. With permission of the Chair, one appropriate course in another department or program may be substituted.

Requirements : eight courses numbered above 14 (GERM 42-47, which are in English translation, require additional work in German), three of which normally come from participation in the Foreign Study Program in Berlin (GERM 29, GERM 30, and GERM 31). All majors must take the upper-division seminar offered in the winter term of their senior year (normally a GERM 60s course). At the end of their senior winter term, all majors will give a presentation based on their work done for this seminar.
2. **Major B** combines resources of the Department of German Studies with a coherent selection of those of other departments and programs, such as Art History, Comparative Literature, Film Studies, Geography, Government, History, Music, Philosophy, and Religion. In principle, any relevant course in the Dartmouth curriculum that is approved by the Department of German Studies may qualify for this major.

**Requirements**: six courses in the German Studies Department numbered above 14 (GERM 42-47, which are in English translation, require additional work in German), three of which normally come from participation in the Foreign Study Program in Berlin (GERM 29, GERM 30, and GERM 31); four advanced courses from among those offerings in other departments or programs that deal substantially with the culture of German-speaking countries. All majors must take the upper-division seminar offered in the winter term of their senior year (normally a GERM 60s course). At the end of their senior winter term, all majors will give a presentation based on their work done for this seminar.

3. **Modified Major** combines German Studies with another discipline in a coherent program of study. This major is designed individually by the student with a departmental adviser. It may include participation in the Foreign Study Program in Berlin.

**Requirements**: six courses numbered above 14 (GERM 42-47, which are in English translation, require additional work in German); four courses beyond the introductory level in another department or program of the College and approved by the Chair of the Department of German Studies. All majors must take the upper-division seminar offered in the winter term of their senior year (normally a GERM 60s course). At the end of their senior winter term, all majors will give a presentation based on their work done for this seminar.

**Senior Culminating Experience**: All German majors must take the upper-division seminar offered in the winter term of their senior year. This course will count as one of the eight courses required for Major A and one of the ten courses required for Major B or the Modified Major. In addition to regular participation in the seminar, senior majors will meet with its professor during designated x-hours to discuss methodology and to develop a research topic. Additional work will culminate in a significant essay, the argument of which will be presented orally in German to classmates and to the faculty of the Department of German Studies at the end of the winter term.

**Requirements for the Minor**

**Minor**: The Department of German Studies offers a minor with the following prerequisites: GERM 1, GERM 2, GERM 3, or permission of the Chair. In addition, the minor requires two intermediate courses (GERM 6, 10.00, 10.01, 10.02, 10.03) [Starting with the Class of 2020: Two GERM courses (GERM 10.00, GERM 10.01, etc); or permission of the Chair] and four advanced courses above GERM 14 (GERM 42-47, which are in English translation, require additional work in German). Students who wish to declare a minor must do so no later than the fall term of their senior year.

**Dartmouth Language Study Abroad Program in Germany (LSA)**

**Prerequisite**: GERM 2 with a grade of B- or better, or equivalent preparation, and admission to the program. LSA programs are conducted in Berlin during the spring and summer terms. Students live with local families and take courses taught by local instructors and the Dartmouth faculty member in residence. Upon successful completion of the program, students normally receive credit for GERM 3, GERM 5, and GERM 6. GERM 3 can serve to complete Dartmouth’s foreign language requirement. Students who have already taken and passed GERM 3 on campus may go on the program and take GERM 10.00 instead.

**Dartmouth Foreign Study Program in Germany (FSP)**

**Prerequisite**: Acceptance into the program and a grade of B or better in any two courses above GERM 5, excluding GERM 7 and GERM 13, 14, 15 (GERM 42-47, which are taught in English translation, require additional work in German). Students who have satisfactorily completed the German LSA may fulfill this prerequisite by taking one course in addition to the three taught on that program. Students who have satisfactorily completed the German LSA in the summer term need not take this additional course if they go on the FSP in the immediately following fall term. Students who receive credit for German 10.00 as the result of a placement test must complete one further course (GERM 10.01, GERM 10.02, or GERM 10.03, for example.) The Dartmouth Foreign Study Program in Berlin is conducted each fall term. Students live with local families and take GERM 29, GERM 30, and GERM 31.

For more information, inquire at the Off-Campus Programs Office, 44 North College Street, or at the Department of German Studies, 333 Dartmouth Hall.
German Honors Program
Students of exceptional attainment who satisfy the minimum College requirements are encouraged to participate in the Honors Program. By November 1 of their senior year, prospective honors students must submit a thesis proposal demonstrating adequate knowledge of the topic on which they wish to write. Such knowledge would normally be acquired through participation in an advanced course (above GERM 15) on a related topic. Alternatively, the topic of interest might have been explored in an independent study (GERM 85). Honors projects must be approved by the departmental faculty. By the end of the winter term, prospective honors students are expected to provide written work sufficient to warrant continuation of their project in GERM 87 in the spring term. Students not attaining the required minimum standards for honors work may not enroll in GERM 87 and therefore may have to take another German Studies course to fulfill the major requirements. (See also Senior Culminating Experience.)

GERM - German Studies Courses
OUR PROGRAMS
- Major A focuses on literary and non-literary texts and other media in their historical, intellectual and material contexts.
- Major B combines German Studies classes with those in other departments and programs, on topics related to German Studies.
- The modified major is designed by the student, combining German Studies with another discipline in order to allow for truly interdisciplinary projects, e.g., German Studies and Geography. It may include classes without a German Studies connection, but all classes should be relevant to the research project.
- A minor in German Studies is often done in conjunction with a major another department (e.g., Government, Economics, Physics).

MAJOR A
Major A focuses on literary and non-literary texts and other media in their historical, intellectual and material contexts.

PREREQUISITES
Three courses at the intermediate level (German 6, German 10.00, German 10.01, German 10.02, German 10.03, German 10.06), or permission of the Chair.

MAJOR-LEVEL COURSES
- Seven courses numbered above the 10-level
- All three courses in the Foreign Study Program in Berlin receive major credit (German 29, 30, and 31)
- German courses in English translation (e.g., German 13-15 and German 42-47) require additional work in German. Normally only two may count toward the major. Counting more than two courses in English translation toward the major requires permission by the chair.
- With permission of the chair, you may substitute one appropriate course in another department.
- Majors need to have taken German 64 or 65 as a major culminating experience by the end of the fall quarter of their senior year.
- Majors who wish to write an honors thesis need to submit a thesis proposal to the department at the end of their major culminating experience. They can take their thesis writing credit (German 87) at any point in their senior year.

Major B
Major B combines German Studies classes with those in other departments and programs, on topics related to German Studies.
PREREQUISITES
Three courses at the intermediate level (German 6, German 10.00, German 10.01, German 10.02, German 10.03, German 10.06), or permission of the Chair.
MAJOR-LEVEL COURSES
- Five courses from the Department of German Studies numbered above the 10-level. German courses in English translation (e.g., German 13-15 and German 42-47) require additional work in German. Normally only one may count toward the major. Counting more than one course in English translation in German Studies toward Major B requires permission by the chair.

Modified Major
The modified major is designed by the student, combining German Studies with another discipline in order to allow for truly interdisciplinary projects, e.g., German Studies and Geography. It may include classes without a German Studies connection, but all classes should be relevant to the research project. This major is designed individually by the student with a departmental adviser and needs approval by the chair. It often includes Dartmouth’s Foreign Study Program in Berlin.

PREREQUISITES

**Three** courses at the intermediate level (German 6, German 10.00, German 10.01, German 10.02, German 10.03, German 10.06), or permission of the Chair.

THE MODIFIED PORTION

- You can choose four courses beyond the introductory level that are taught in one other department or program. These courses must be approved by the chair of the Department of German Studies.

THE GERMAN STUDIES PORTION

- You must complete four courses numbered above the 10-level. German courses in English translation (e.g., German 13-15 and German 42-47) require additional work in German. Normally only one may count toward the major. Counting more than one course in English translation in German Studies toward the Modified Major requires permission by the chair.

- Majors need to have taken German 64 or 65 as a major culminating experience by the end of the fall quarter of their senior year.

- **Three** courses beyond the introductory level that are taught in other departments or programs such as Art History, Comparative Literature, Film Studies, Geography, Government, History, Jewish Studies, Music, Philosophy, or Religion. In principle, any relevant course in the Dartmouth curriculum that is approved by the Department of German Studies may qualify for this major.

- Majors need to have taken German 64 or 65 as a major culminating experience by the end of the fall quarter of their senior year.

Minor

Students wishing to declare a minor must sign up for it no later than the fall term of their senior year.

REQUIREMENTS

**Two** courses at the intermediate level (German 6, German 10.00, German 10.01, German 10.02, German 10.03, German 10.06), or permission of the Chair.

You must complete four courses numbered above the 10-level. German courses in English translation (e.g., German 13-15 and German 42-47) require additional work in German. Normally only one may count toward the major. Counting more than one course in English translation in German Studies toward the Minor requires permission by the chair.

- One of the advanced German courses may be replaced with an appropriate advanced course in another department or program, such as Film Studies, Government, History, Jewish Studies, Music, or Philosophy.

**GERM 1 - Introductory German**

Instructor: Denzel; Komska; McGillen, M; McGillen, P; Ostrau

Introduction to written and spoken German. Immersive study of German language and culture in a diverse German speaking world with a focus on basic grammar and vocabulary through fictional and non-fictional readings, film, oral and written drills, composition exercises, authentic conversation, and project work. *Never serves in partial satisfaction of the Distributive or World Culture Requirement.*

Prerequisite: 1

**GERM 2 - Introductory German (continued)**

Instructor: Denzel; Komska; McGillen, M; McGillen, P; Ostrau

Continued work on written and spoken German. Immersive study of German language and culture in a diverse German speaking world with a focus on basic grammar and vocabulary through fictional and non-fictional readings, film, oral and written drills, composition exercises, authentic conversation, and project work. *Never serves in partial satisfaction of the Distributive or World Culture Requirement.*

**GERM 2.03 - Fast-Track German in Berlin**

Instructor: McGillen, P

This course takes advantage of the city of Berlin as a full-immersion environment to combine the contents of German 2 and German 3 into one accelerated course. Continued intensive work on the fundamentals of oral and written German and cultural knowledge through conversation, readings, grammar, composition exercises, and interactive projects. The course satisfies the college language requirement.

Prerequisite: Acceptance into the FSP S22
GERM 3 - Introductory German (continued)
Instructor: Denzel; Fuechtner; McGillen, M; Ostrau
Continued work on written and spoken German. Immersive study of German language and culture in a diverse German speaking world with a focus on basic grammar and vocabulary through fictional and non-fictional readings, film, oral and written drills, composition exercises, authentic conversation, and project work. *Never serves in partial satisfaction of the Distributive or World Culture Requirement. Successful completion satisfies the college's language requirement.*

GERM 5 - Aspects of German Culture
Instructor: Komska; Mladek
Using the city of Berlin itself as a site and object of study, students will explore German culture in its widest sense. Visits to architectural, historical, religious, scientific, and industrial sites will acquaint them with multiple aspects of German society.
Prerequisite: Acceptance into the Dartmouth Language Study Abroad Program.
Distributive: WCult:W

GERM 6 - Readings in German Literature
Instructor: Fuechtner
This course introduces students to the interpretation of stories, poems, and articles from various periods. Depending on availability, we will also read plays and view their performances in some of the many theaters in Berlin.
Prerequisite: Acceptance into the Dartmouth Language Study Abroad Program.
Distributive: Dist:LIT; WCult:W

GERM 7 - First-Year Seminars in German Literature
Instructor: Denzel; TBD
Consult special listings

GERM 10.00 - Intermediate German Language and Culture: Contemporary Germany
Instructor: Fuechtner; Gemunden; Komska; Mladek; Ostrau
This course develops facility in oral expression and writing, with emphasis on the expansion of vocabulary and the reinforcement of grammatical structures. It draws much of its audio, visual, and print material from the website of the Deutsche Welle, and it treats current events and other topics of interest in contemporary German society.
Distributive: WCult:W

GERM 10.01 - To Be Young and German
Instructor: Gemünden; Mladek; Ostrau;
This class investigates youth cultures in the German-speaking world, analyzing different ideas of youth and their political and cultural impact in four distinct units: fairy tales and nation building in the early 19th century, sexual awakenings in the early 20th century, authoritarian regimes of the mid- and late 20th century, and youth rebellion in post-war and post-unification Germany. This course will review more complex grammar, expand vocabulary, and strengthen listening, speaking and writing skills. Conducted in German.
Prerequisite: GERM 3, or equivalent
Distributive: Dist:SOC; WCult:CI

GERM 10.02 - From God's Subjects to Global Citizens
This course surveys the history and culture of the German-speaking lands to investigate the individual's role in a changing society. Discussions will stress the uneven path of subjects, dependent on God, the ruler, or social hierarchy, towards becoming autonomous citizens. What role has philosophy, poetry, art, architecture, or music played in this emancipation process? Thinking and writing about this question will help intermediate language learners practice grammar, acquire vocabulary, and strengthen listening, speaking, and writing skills. Conducted in German.
Prerequisite: GERM 3, or equivalent.
Distributive: Dist:TMV; WCult:W

GERM 10.03 - Understanding German Media
Instructor: Komska
This intermediate course explores the media scene of contemporary Germany, with a focus on newspapers, TV, radio, and blogs. We will compare these media, study the kinds of language they produce, and analyze their place in contemporary German culture. Students will develop writing skills by practicing the stylistic conventions of each medium, learning to communicate effectively with different audiences. The course reviews grammar topics in detail, expands vocabulary, and strengthens listening, speaking, and writing skills. Conducted in German.
Prerequisite: GERM 3, or equivalent.
Distributive: Dist:ART; WCult:W

GERM 10.06 - Look! A Visual History of Germany
Instructor: Denzel
This course explores Germany's history from pre-modernity to the present through visual sources ranging from medieval manuscripts to contemporary film. Students analyze the iconography of major social, political, and artistic events and developments by “reading” posters,
paintings, architectural plans, newspaper illustrations, and art installations as well as “texts” in other visual media. Analyzing such visual evidence of German history, intermediate learners of German will refine their grammar, expand their vocabulary, and improve their listening, speaking, and writing skills. Conducted in German.

Prerequisite: GERM 3, or equivalent.
Distributive: Dist:ART; WCult:W

GERM 13 - Beyond Good and Evil
Instructor: Fuechtner

Borrowing its title from Nietzsche, this course examines some of the most famous and infamous figures--mythological, fictional and historical--that have profoundly shaped German identity. As we explore the actual lives, works, and influence of the likes of Luther, Faust, and Leni Riefenstahl, students will develop a greater understanding of Wagner's question "What is German?" and learn how the answer to that question has come to epitomize notions of good and evil in general. Conducted in English. Open to all classes.

Distributive: Dist:LIT; WCult:CI

GERM 14 - Into the Woods: The Brothers Grimm and the European Folklore Tradition
Instructor: Ostrau

This course examines the classical origins, artistic form, and modern legacy of the folktales famously collected by the Brothers Grimm, situating them in both their German and their wider European context. Students investigate the cultural, political, and psychological influences of the folktale genre on individuals, social groups, and nation-states from antiquity to the present. Class discussions consider renditions of the tales in various media (including illustrated editions and films) and treat contemporary topics such as childhood pedagogy, gender, social (in)justice, psychology, and political ideology.

Distributive: Dist:LIT; WCult:CI

GERM 15 - Nazis, Neonazis, Antifa and the Others: Exploring Responses to the Nazi Past
Instructor: Kacandes

Why do the Nazis remain the world’s epitome of evil? What did they actually do? And how specifically are they remembered, depicted, emulated, despised or ignored since the catastrophes of the mid-twentieth Century? In this course we will examine the main events connected with the Second World War, the genocide of European Jewry and Roma-Sinti, forced resettlements of various populations, and the Allied attacks on the German civilian population. We will analyze the different stages of coming to grips with that past on the part of German and some other postwar societies, by examining together a number of controversies like those surrounding the Nuremberg, Frankfurt, Eichmann and Barbie trials, the campaign to build a Holocaust memorial in Berlin, Neonazism, the Wehrmacht photo exhibition, and the current campaign to remember German civilian casualties and losses. Approaching our topic with interdisciplinary and comparative methodology, that is, by utilizing history, journalism, video testimony, music, literature, and art, including film, photography and architecture, students will develop their own perspectives on the formation of postwar German identity and why Nazis remain the epitome of evil. An individual midterm project will allow students to practice the skill of summarizing different sides of a debate, and a final group project will invite students to solidify what they have learned in the course about the formation of national identity by creatively staging a contemporary debate about the Nazi past.

Cross-Listed as: COLT 64.01 JWST 37.02
Distributive: Dist:LIT; WCult:CI

GERM 29 - A Cultural Studies Approach to Contemporary Germany and Berlin
Instructor: Ostrau

Introduction to contemporary German culture, identity and everyday life through close analysis of literary, visual (including filmic), architectural, political and other texts. Assignments develop skills in the analysis of visual material, of the construction of identity, and of the expression of sophisticated ideas in written and spoken German. Carries major or minor credit.

Prerequisite: Acceptance into the Dartmouth Foreign Study Program.
Distributive: Dist:ART; WCult:CI

GERM 30 - Studies in German History
Instructor: Gemünden, Ostrau

More than any other German city, Berlin encapsulates Germany's complex recent past. From the Brandenburg Gate to the Olympic Stadium and from the Wannsee to Alexanderplatz, every corner of the capital evokes memories of industrialization, Nazi rule, World War II, Cold War divisions, or Unification. This course addresses significant aspects of German history and cultural memory. In-depth studies of important developments will be complemented by visits to museums and historical sites.

Prerequisite: Acceptance into the Dartmouth Foreign Study Program.
Distributive: Dist:SOC; WCult:W

GERM 31 - Studies in German Theater
Instructor: Gemünden, Ostrau
Berlin is one of the culturally most vibrant cities in Europe. There are over a hundred theaters and several opera houses with performances that range from classical drama to vaudeville and from musicals to serious opera. Students will read plays and libretti, view stage productions and read, discuss, and write weekly essays about the plays. The repertory varies from year to year.

Prerequisite: Acceptance into the Dartmouth Foreign Study Program.

Distributive: Dist:LIT; WCult:W

GERM 42.04 - From the Typewriter to Virtual Reality: Modern Media Theory (in English)

The media theorist Friedrich Kittler famously declared, “Media determine our situation.” But what is a medium, and how can we understand its impact? Through analysis of foundational media-theoretical writings from the 20th and 21st centuries, this seminar will explore the relationship between modern media and fundamental cultural practices, ranging from the acoustic (gramophone, radio), to the visual (photography, film, virtual realities), to the tactile (typewriter, e-reader, touch screen). Topics will include the relationship between media technologies, perception, and communication; the interplay of mass media and art; and changing notions of reality. The seminar will emphasize the “German tradition” of media studies with its focus on technology and material media and put it in dialog with international developments (McLuhan, Baudrillard, Virilio, Parikka).

Cross-Listed as: COLT 049

Distributive: Dist:ART; WCult:W

GERM 42.05 - Material Realities, Material Matters: A Brief History of Paper & Other Writing Surfaces (in English)

Instructor: McGillen, P

The age of paper is said to be over because so much data are digital now. Yet we are far from being a paperless society. Paper is still everywhere in our everyday lives (think money) and even in our language (“I have to write a term paper”). In this course, we will trace the media history of paper and other writing surfaces—from clay tablets, to papyrus, to Gutenberg’s letterpress, to the industrial age of newsprint, to the pdf—to find out how paper permeated modern culture and civilization as deeply as it did. Combining media-historical and literary readings, we will study the impact that paper had on literary and intellectual production. How might the choice of writing surface both enable and restrict the writer’s creative possibilities? Theoretical readings by McLuhan, Foucault, Kittler, and Johns; selected literary writings by de Pizane, Diderot and D’Alembert, Defoe, Lichtenberg, Dickens, George, and Sudjic. Parts of the course will be taught hands-on with print objects from Rauner Library.

Cross-Listed as: COLT 049

Distributive: Dist:INT or SOC; WCult:CI

GERM 42.06 - Freud: Psychoanalysis, Jews, and Gender (in English)

Instructor: Fuechtner

This course will examine how Freud’s own writings, his biography, and his biographers have shaped the perceptions of psychoanalysis as a specifically Jewish theory and practice. Through a reading of Freud’s texts on gender, sexuality, and religion, we will trace the connects between psychoanalysis, Jewishness, and gender that have impacted theoretical discussion. We will explore critique, including Horney, Reich, and Marcuse, and recent debate on the status of Freud in the U.S.

Cross-Listed as: JWST 051 WGSS 67.01

Distributive: Dist:SOC; WCult:CI

GERM 42.07 - Intercultural Communication (in English)

Instructor: Denzel

This interdisciplinary class introduces students to key topics of intercultural communication. Through role plays, experiential exercises, and analyses of case studies from the global industry and world politics students will learn about significant components of their own culture and other cultures. Drawing on concepts from linguistics, psychology, anthropology, sociology and business studies, we will problematize notions of an “essential” cultural identity, while analyzing international relations and common conceptions and misconceptions in a global context.

Distributive: Dist:LIT; WCult:W

GERM 42.09 - The Power and Spirit of Music In German Literature (in English)

Cross-Listed as: COLT 40.05

Distributive: Dist:LIT; WCult:W

GERM 42.06 - Freud: Psychoanalysis, Jews, and Gender (in English)

Instructor: Fuechtner

This course will examine how Freud’s own writings, his biography, and his biographers have shaped the perceptions of psychoanalysis as a specifically Jewish theory and practice. Through a reading of Freud’s texts on gender, sexuality, and religion, we will trace the connects between psychoanalysis, Jewishness, and gender that have impacted theoretical discussion. We will explore critique, including Horney, Reich, and Marcuse, and recent debate on the status of Freud in the U.S.

Cross-Listed as: JWST 051 WGSS 67.01

Distributive: Dist:SOC; WCult:CI

GERM 42.07 - Intercultural Communication (in English)

Instructor: Denzel

This interdisciplinary class introduces students to key topics of intercultural communication. Through role plays, experiential exercises, and analyses of case studies from the global industry and world politics students will learn about significant components of their own culture and other cultures. Drawing on concepts from linguistics, psychology, anthropology, sociology and business studies, we will problematize notions of an “essential” cultural identity, while analyzing international relations and common conceptions and misconceptions in a global context.

Distributive: Dist:LIT; WCult:W

GERM 42.09 - The Power and Spirit of Music In German Literature (in English)

This course treats prominent examples of the historically close relationship between the proverbial “sister arts” of literature and music. It treats hymns, plays, poems, and prose fiction set to music in cantatas, songs, song-cycles,
and operas, as well as in ballets and in film. It also treats prose fiction describing music, singers, musicians, and composers. Conducted in English.

Distributive: Dist:ART; WCult:W

GERM 42.10 - Naughty Nuns, Rowdy Knights and Feisty Poets: The German Middle Ages (in English)

Instructor: Ostrau

This course investigates instances of rebellion against worldly and spiritual powers in fictional and nonfictional texts of the German Middle ages. Case studies include gender roles in the twelfth century correspondence of Hildegard of Bingen, the undermining of the court’s strict code of heroic behavior in chivalrous epics by thirteenth century courtly poets (Vogelweide, Straßburg) and the violation of sexual taboos and class borders in fourteenth century conduct literature. The course is taught in English.

Distributive: Dist:LIT; WCult:W

GERM 42.11 - Literature and Psychoanalysis: The Cultural Legacy of Sigmund Freud (in English)

Those new to Freud might be surprised by the role of literature in his texts. Why, for instance, are Hamlet and Oedipus so important in articulating theories of the psyche? Why might a medical practitioner analyze novels in addition to analyzing patients? Our goals for this course are twofold: First, we will work to understand Freud’s texts on their own terms as we familiarize ourselves with psychoanalytic theories. Second, we will situate these works within a broader cultural context, reading them alongside literary texts that Freud explicitly addresses and alongside literary, filmic, and theoretical works that draw on psychoanalytic concepts. Our discussions of the cultural imprint of Freudian thought will encompass a variety of themes, from gender and sexuality to Jewishness to the clinical techniques central to psychoanalytic practice. We will grapple with the promises and limitations of Freud’s own literary “archive” and the cultural products that archive Freudian thought.

Cross-Listed as: COLT 66.02
Distributive: Dist:LIT; WCult:W

GERM 42.12 - Fictions of Survival: Robinsonades and Adventure Stories (in English)

This seminar follows the traces of the Robinsonade and the adventure novel. Where do the roots of such adventures lie—adventures that are experienced and capable of being told as tales? When did it become possible to turn adventures into a business or entertainment? What is an adventure to begin with? Can it be described as a form? These questions themselves show just how wide a net we have to cast if we are to apprehend something of what constitutes adventures and adventurers. This question needs to be considered in the terms of literary, cultural, and media history. With regard to adventurers (both male and female), a highly interesting question to examine is whether they consciously expose themselves to danger in order to experience an adventure or whether the adventure is the inadvertent consequence of fate or accident. The character and significance of these questions changes as they approach the present, in which the pursuit of adventure is becoming ever more widespread and its documentation includes real-time transmission almost as a matter of course.

Distributive: Dist:LIT; WCult:W

GERM 42.13 - Gender and Jewish-German Culture

Instructor: Von der Lühe

In this class we will investigate different texts and representations of female experiences by Jewish authors from the Weimar Republic to the end of the 20th century. The intersection of gender with Jewish German culture became one of the most important topics in cultural and literary research during the last decades. We will read and discuss lyrical and political, essayistic and autobiographical texts written by authors under extremely different political and historical circumstances; and we also will discuss theoretical and methodological problems in the field of Jewish German history and culture. Taught in English translation. Students taking the class for major or minor credit in German Studies will have the option to enroll in an additional German-language discussion section.

Cross-Listed as: JWST 53.01
Distributive: Dist:LIT; WCult:CI

GERM 42.14 - German-Jewish Exile Literature (in English)

Instructor: McGillen, M

The rise of fascism in Europe resulted in the displacement of countless Central-European Jews, who sought refuge in France, Switzerland, Sweden, Istanbul, Palestine, and above all in the United States. This course explores how German-Jewish writers, artists, and intellectuals responded to the condition of exile during the period of National Socialism and its aftermath. These writers constituted what Erika and Klaus Mann called “The Other Germany” by carrying forward the avant-garde possibilities of Weimar culture and offering political resistance to the Nazi regime from outside of Germany. Yet they were also confronted with the challenges of exile, including homelessness, alienation, and the struggle to form communities, along with painful questions about their own German identity and their relationship to the German language.

Examining works by Arendt, Mann, Brecht, Benjamin, Auerbach, Kracauer, Lasker-Schüler, Seghers, Sachs, Celan, Adorno, Werfel, Zinnemann, Lorre, and...
Schoenberg, the course will address key topics raised by the German-Jewish experience of exile, including nostalgia, loss, antisemitism, the corruption of the German language by National Socialism, bilingualism, the political significance of the refugee experience and resistance to fascism, the complex image of America in the works of German-Jewish refugees, and the religious meanings of exile.

Distributive: Dist:INT or LIT; WCult:CI

**GERM 43 - Migration, Mobility and the Movies: German Film in Global Context**

European borders have become a popular setting in world cinema since the development of global tourism and the recently declared “international immigration crisis”.

In this class, we study film as an aesthetic and political medium and explore how directors construct and deconstruct borders in their audience’s imagination. We analyze the concept of cinematic ‘borderscapes’ and examine how depictions of borders rely on narratives, images and imaginations. We do not only assess who is crossing international borders – commuters, tourists, immigrants, refugees, human traffickers and their victims – but we also examine who is welcome to cross, who is welcome to stay and who has to be expelled. We put German cosmopolitan road movies, tourist films and tales of successful and unsuccessful migration and integration in the context of global cinema and analyze differences in debates surrounding multiculturalism, migration and mobility, national identity and human rights.

Cross-Listed as: FILM 42.18

Distributive: Dist:INT or ART; WCult:CI

**GERM 43.01 - History & Theory of German Film: Contemporary German Film (in English)**

Recent German films such as The Lives of Others, Downfall, Head On or Run Lola Run have enjoyed much international success at festivals and box offices and drawn attention to a new generation of German-languages filmmakers. This class will explore contemporary German culture of the last twenty years through their lens. We will discuss some of the main challenges that German society is facing today: overcoming the divide between East and West integrating immigrant cultures, and coming to terms with the history of the Third Reich. In our analysis of popular mainstream movies as well as low-budget independent productions, we will also address how filmmakers today refer to their rich tradition of German cinema before reunification, e.g. the Expressionist cinema of the 1920s or the New German Cinema of the 1970s. No German knowledge is required for this class – all films are available and subtitled in English. By special arrangement, this course can also count toward a German Studies major or minor. (in English Translation) Open to all Classes.

Distributive: Dist:ART

**GERM 43.05 - Of Golems, Vampires, and Robots: The Haunted Screen of Weimar Cinema (in English)**

Instructor: Gemünden

Weimar Cinema prefigures the rise of the Third Reich, but it also reacts to the trauma of the lost War, and to the fear of changes brought on by modernity: secularization, industrialization, urbanization, the rise of the “new woman,” and changing forms of sexuality. In this course, we will meet the most famous of these uncanny cinematic creations and study them in the larger cultural and social context that marked the transition from the demise of the German Kaiser to the advent of the Führer.

Cross-Listed as: FILM 42.17

Distributive: Dist:ART; WCult:W

**GERM 43.06 - Migration, Mobility and the Movies: German Film in Global Context**

European borders have become a popular setting in world cinema since the development of global tourism and the recently declared “international immigration crisis”.

In this class, we study film as an aesthetic and political medium and explore how directors construct and deconstruct borders in their audience’s imagination. We analyze the concept of cinematic ‘borderscapes’ and examine how depictions of borders rely on narratives, images and imaginations. We do not only assess who is crossing international borders – commuters, tourists, immigrants, refugees, human traffickers and their victims – but we also examine who is welcome to cross, who is welcome to stay and who has to be expelled. We put German cosmopolitan road movies, tourist films and tales of successful and unsuccessful migration and integration in the context of global cinema and analyze differences in debates surrounding multiculturalism, migration and mobility, national identity and human rights.

Not open to students who have received credit for GERM 043.

Distributive: Dist:INT or ART; WCult:CI

**GERM 44.03 - Souls Sold to the Devil: The Faust Tradition (In English)**

Faust's famous story of selling his soul to the devil in return for knowledge, wealth, power, love, freedom, or youth has been told in many ways and in diverse media. This course concentrates on Marlowe's The Tragical History of the Life and Death of Doctor Faustus, on Goethe's Faust, and on Mann's Doctor Faustus. It also considers Fausts in French and Russian Literature and in New England as well as in art, music, and film. Students...
thus learn how historical, legendary, literary, and other Fausts reflect both hopes and fears of specific cultures at particular times while raising epistemological, ethical, and other issues inherent in the larger, limited modern human condition.

Cross-Listed as: COLT 35.04
Distributive: Dist:LIT; WCult:W

GERM 44.05 - Where the Wild Things Are: The Culture of Environmentalism in Germany (in English)
Instructor: Komska

Long before it became a twenty-first century buzzword, “sustainability” (Nachhaltigkeit) was a term coined and propagated by nineteenth-century German pioneers of nature conservation. For inspiration they drew not on political thought or science, but on works of art, philosophy, and literature where nature—especially the forest—loomed large. This course will focus on culture as a primary vehicle for Germany’s ecological consciousness through the nineteenth century, the Third Reich, the Cold War, and the present.

Distributive: Dist:LIT; WCult:CI

GERM 44.06 - German-Jewish History (in English)
This course is an immersion in the interdisciplinary approach to the history, culture, religion, and philosophy of Jews in Berlin, Prussia, Germany, and Central Europe from the late 18th century to the present day that will include reading primary and secondary sources and visiting the actual sites where the historical events occurred.

Cross-Listed as: JWST 34.03
Distributive: Dist:INT; WCult:CI

GERM 44.07 - Metropolis Berlin: Cultural and Political History in the Urban Landscape (in English)
Instructor: McGillen, P

This interdisciplinary class explores the German capital as a cultural and political center from the eighteenth century to the present day through historical and sociological readings, literary excerpts, films, conversations with Berliners, and excursions. Built around five core modules, the class provides a panorama of key moments in the city’s history: City of Growth (tenement housing or Mietskasernen in the 1920s; the Bauhaus; contemporary architecture; migration); City of Intellectuals (Jewish salons and enlightenment culture in the eighteenth century; underground literature and music under conditions of GDR censorship; today’s literary scene); City of Film (Weimar film; East German genre cinema); City of Ruptures (Fascism; the Berlin Wall; reunification); and City of Sustainability (a cultural history of water supply; public transportation; parks; and gentrification). Students will not only learn how to “read” Berlin’s present-day characteristics in the context of modern Germany’s cultural, political, and social history, they will also develop a refined understanding of the historically contested and emotionally charged nature of the city’s urban landscape and analyze the conflicts that arise from the challenges of commemorating Germany’s fraught past. The course will be taught in English by the German Studies Faculty Program Director. It will include the option to complete additional assignments in German during the x-hour for German major/minor credit. The Friday excursions will be open to all students on the FSP. Students enrolled in this course will serve as tour guides for their FSP peers.

Prerequisite: Acceptance into the Foreign Study Program.
Distributive: Dist:SOC; WCult:W

GERM 45 - The Burden of the Nazi Past: World War, Genocide, Population Transfer, and Firebombing (in English)
This course studies the main events of World War II and the different stages of processing the past in the post-1945 period. In an interdisciplinary fashion we take up selective controversies in order to understand the formation of post-war German identity, e.g., the Nuremberg, Frankfurt, and Eichmann trials, the Berlin Jewish Museum and Holocaust Memorial, Neonazism, and current efforts to remember German civilian casualties. Taught in English. By special arrangement, this course can count toward a German Studies major or minor. Open to all classes.
Distributive: Dist:LIT; WCult:CI

GERM 46 - The German Novel (in English translation)

GERM 46.02 - Kafka and Brecht: Alienation, Satire, and Revolt (in English)
Instructor: Mladek

Franz Kafka (1883-1924), the most influential prose writer of the 20th century, and Bertolt Brecht (1898-1956), probably the most influential dramatist, both examine the alienated and un-heroic modern individual in her/his unhappy relationship to hostile social environments: dysfunctional families, impenetrable bureaucracies, heartless capitalist economies. Both use experimental techniques in form and content to shake their audiences out of their complacent worldviews and lazy habits of thought and feeling; both are darkly, mordantly, hilariously funny. Conducted in English. By special arrangement, this course can also be used to count toward a German Studies major or minor. Open to all classes.
GERM 46.03 - 8 Short Books That Will Change Your Life

Instructor: Mladek

This course is for anyone who has ever been afraid of great literature, for anyone who has fallen in love with good books before, and for anyone who has used them to make a difference in someone's life. You will learn how to read, understand, and see the world differently. We will read short but revolutionary books from different centuries, different kinds of writers, and different media; they will be about love and loss and loyalty and law, parasites and the climate catastrophe. Some of them will be about you. You will develop interpretive skills and will learn how to think about what it means for something to be "poetic," whether it is a mountain range, a crime, a love interest, or a toilet. Can the books we read in this class really change your life? (What would that even mean?) Maybe; maybe not. But they're certainly going to try.

Beginning with novels of the eighteenth and nineteenth centuries, and continuing up to the present day, it will focus on topics such as love, politics and the importance of death. This course includes film adaptations.

Readings will include Goethe's Werther, Kleist's Michael Kohlhaas, Droste-Hülshoff's The Jews' Beech, Nietzsche's The Birth of Tragedy, Rilke's The Notebooks of Malte Laurids Brigge, Kafka's The Trial, Musil's Törlless, Thomas Mann's Death in Venice and Visitation by Jenny Erpenbeck. Conducted in English. German majors can take this course for major credit if they do additional work in German.

Distributive: Dist:LIT; WCult:W

GERM 46.04 - Mobs, Crowds, and the People: Activism in Populist Times

Instructor: Gomez and Mladek

It is no accident that we find ourselves today in the midst of populist unrest. Our course Mobs, Crowds, and the People: Activism in Populist Times explores the longstanding history of popular unrest and mobilization, fear of the people in literature, philosophy, theology and film from across three continents. Populism is central to current debates about politics and the future of democracy, from radical right organizations in Europe to left-wing parties and presidents in Southern Europe and Latin America to the Occupy Wall Street Movement, Bernie Sanders, Donald Trump and the "Capitol Riot" in the United States. But populism is also one of the most contested concepts in the humanities and political theory. Is populism an ideology or a revolutionary strategy? A style of politics? And, crucially, who are “the people” in populism?

Cross-Listed as: HUM 03.07

Distributive: Dist:TMV; WCult:W

GERM 47.01 - Marketplace Germany: Language and Culture of the German Economy (in English)

Marketplace Germany examines the economic culture and language of the German speaking world. It includes intercultural case studies on production, trade and consumer culture from Germany, Austria and Switzerland as well as Germany’s relationship with the E.U. and other global trading partners. Through readings, compositions and hands-on projects students learn how German business is conducted in major German industries and they acquire basic business German. No prior knowledge of German required.

Distributive: Dist:INT or SOC; WCult:W

GERM 61 - The Age of Goethe (1749-1832)

Johann Wolfgang von Goethe (1749-1832) was the most notable creative force of the period that bears his name, but his contemporaries included an astonishing number of other great geniuses, including Kant, Mendelssohn, Lessing, Schiller, Kleist, Tieck, and Hoffmann. Conducted in German. Satisfies the culminating-experience requirement for seniors who are German majors and minors.

Distributive: Dist:LIT; WCult:W

GERM 64.01 - Lit of the Modern Period: Franz Kafka and the Modern Self"

Instructor: McGillen, M

Kafka’s stories are the epitome of modern tragicomedy. In few other writers do we find despair and hope, guilt and redemption, dream and reality, in such close proximity. Kafka expresses the struggles of the modern self through the labyrinth-like character of his prose, through which we as readers must find a path. The course will read Kafka closely - with attention to questions of authority, law, and self-fulfillment - and develop strategies of literary criticism and interpretation.

Distributive: Dist:LIT; WCult:W

GERM 64.02 - Pulp Fiction Meets High Literature: Media and Writing in 19th-Century Germany

Instructor: McGillen, P

To be a writer in 19th-century Germany meant to interact with a thriving media market: For the first time, writers wrote for a mass readership and published in illustrated magazines, where their writings appeared together with news items, pulp fiction, other kinds of entertainment, and images. Reading works by Heine, Fontane, Droste, and others, we will explore the complex aesthetic strategies with which they responded to this media challenge. The course will refine key research methods in German Studies. Conducted in German. Open to all classes. Can be taken as a Culminating Experience by doing additional work.
GERM 64.03 - Weimar Republic Culture
This class provides an introduction into Weimar Republic Culture and its rich political and aesthetic legacy. Writers, artists, filmmakers, scientists, philosophers, and political activists collaborated widely and produced new perspectives and forms for understanding the self and its relationship to language, to others and to the world. We will discuss among others artistic movements such as expressionism, Dada and New Objectivity, modernist genres such as the collage or the stream-of-consciousness novel, groundbreaking authors such as Thomas Mann and Bertolt Brecht, the rich German-Jewish cultural life before the rise of fascism and the way in which sciences and the arts converged. The class will be conducted in German.

Distributive: Dist: LIT; WCult: W

GERM 64.04 - Theater and the Revolution
The modern theater is born from the spirit of unrest and revolution. This course is an introduction to the concept of the revolution and its relation to some of the most ground-breaking plays of modern drama. Particular emphasis will be given to the intersection between theater and history, art and politics, stage and the passion for justice. But along the way, we will cross the question of love, betrayal, disgust, rage, melancholia and death. We will read plays by Georg Büchner, Bertolt Brecht and Peter Weiss, and by contemporary playwrights Heiner Müller and Elfriede Jelinek (class in German).

Distributive: Dist: LIT; WCult: CI

GERM 65.02 - German Humor--Not an Oxymoron!
German Humor--Not an Oxymoron! This seminar analyzes texts, artwork, films, and songs ranging from the early 20th-Century literary tradition to contemporary visual humor. The topics for discussion will include political satire on war, nationalism, and reunification, Hitler comedies, immigrant comedies, humor on gender, and satires on what it means to be German. This seminar also provides an introduction to German Studies research methods. Conducted in German. German majors may take this course as their Culminating Experience by doing additional work.

Distributive: Dist: LIT; WCult: W

GERM 65.05 - Deutsche Kurzprosa: Kunstmaerchen gegen Novelle
Kunstmärchen are literary fairy-tales more refined than popular Volksmärchen. Novellen are narratives more akin to drama than to the novel or short story. This seminar treats outstanding examples of both genres, showing how they work as well as how they compete and conflict with each other.

Distributive: Dist: LIT; WCult: W

GERM 65.06 - Modes of Belonging: What is Heimat
Instructor: Komska
In the 21st century, Germany is de facto an "immigration country." That means that non-Germans have a chance of becoming German. But it hasn't always been this way. The German understanding of belonging has a long and complicated history that spans several centuries. In our readings and viewings, which will range from Nazi films to memoirs of GDR-born writers, we will trace this history’s twentieth-century course. Our discussions will tackle the themes that cross boundaries: home, nostalgia, assimilation, cosmopolitanism, and patriotism. Senior majors will participate in a weekly culminating experience workshop focused on more intensive interpretation and analysis of works. Taught in German.

Distributive: Dist: LIT; WCult: W

GERM 65.07 - Babylon Berlin
This interdisciplinary class investigates representations of the city of Berlin from the 19th to the 21st Century. We will draw from literature, autobiography, philosophy, film, and architecture to discuss Berlin's shifting political geographies. The class will be conducted in German. This course also counts as the culminating experience for seniors majoring in German, who will meet as a group five times over the term during the x-hour.

Distributive: Dist: INT or LIT; WCult: CI

GERM 65.08 - The Case Study: From Detective Fiction to Medical Narratives
This course surveys some of the most famous case studies in German cultural history. We will read a range of cases, from psychological case studies to detective fiction, with an eye to specifying the literary and scientific qualities of the genre. What kind of knowledge do case studies transmit and how do they transmit it? What stylistic and generic conventions do authors of case studies draw upon? Conducted in German. German majors may take this course as their Culminating Experience by doing additional work.

Distributive: Dist: LIT

GERM 65.09 - (Research Seminar) Taboo Relationships: Deviant Desires in German Literature and Film
Instructor: Ostrau
This course will critically examine representations of forbidden sexual desires within human relationships in German literature, film and the visual arts that deviate from present norm(s) set by the dominant culture(s). Discussions
are based off of material from the Middle Ages to the Present and center on artistic fantasies that involve social taboos including adultery, object-love, voyeurism, exhibitionism, prostitution, masturbation, sadomasochism, the art of pornography, same-sex love and age-difference relationships. We will situate each theme in its historical and literary context and investigate in what ways imagining sexual desires beyond the publicly acceptable may be read 1) as a call for non-conformism and rebellion against the repressive politics of the state exacted on the individual subject, 2) as a response against the psycho-medical field’s narrow labeling of sexual desires as degenerate perversions of middle class morals, 3) as cautionary tales that aim to redress such perceived acts of deviance and reestablish the moral order of the majority and 3) as artistic expression of that which is fundamentally human, i.e. the wide range of human sensory perception between the self and the other, which leads to such desires. The fictional material will be supplemented by medical, legal and political texts that seek to classify, regulate and fight for the expression of sexual relationships that are considered “beyond the norm.”

Distributive: Dist:LIT; WCult:W

GERM 67 - German Drama: Drama Queens: Madness on Stage

This course analyzes how dramatic literature captured significant changes in ideas on emotions, nerves and madness over the centuries. After a brief introduction into dramatic theory, we will read seminal works by German language dramatists from the 18 through the 21 centuries such as Schiller, Büchner, Schnitzler, Brecht and Jelinek. The class will conclude with a public reading or performance. Conducted in German. Open to all classes.

Distributive: Dist:LIT; WCult:W

GERM 82.05 - Found in Translation: Humor in German Literature

Humor is a funny thing—especially in German. Many German novels, plays, poems, and other texts show a sense of humor, ranging from amusing entertainment to social satire to documents of quasi-philosophical detachment. This seminar explores several such fictional, poetic, dramatic, and other texts, including some recently written by its instructor. It also links such texts to the practice of translation and thus treats not only literary issues but also lexical, semantic, cultural, and other related topics. Theoretical approaches to translation will likewise be considered. Assignments include analyzing and attempting new translations as well as engaging in (humorous!) creative writing.

Distributive: Dist:LIT; WCult:W

GERM 82.06 - Translation: Theory and Practice

Translation is both a basic and highly complicated aspect of our engagement with literature. We often take it for granted; yet the idea of meanings "lost in translation" is commonplace. In this course we work intensively on the craft of translation while exploring its practical, cultural and philosophical implications through readings in theoretical and literary texts. All students will complete a variety of translation exercises, and a substantial final project, in their chosen language.

Cross-Listed as: COLT 19.01

Distributive: Dist:INT or LIT; WCult:W

GERM 82.07 - On Literary Adaptations - How to become a Transformer

Bad books make good movies? This is the question in today’s Germany more than ever. Transforming bestsellers into films, series, graphic novels and radio plays has become the latest trend. This course deals with this relatively new phenomenon. Not only will we talk about what sets one media apart from the other; the works by Wolfgang Borchert, Günter Grass, Christine Nöstlinger, Marcel Beyer, W.G. Sebald, Timur Vermes and Volker Kutscher all deal with the Third Reich: But can visuals do the same as texts here? And what about the change of the concept of “German guilt” in the past 75 years? Taught in German.

Distributive: Dist:LIT; WCult:W

GERM 82.08 - Our Home/s – Creative Writing Seminar in the Age of Corona

We are used to being in different places that define different ways of living. Mobility, too, is a part of our existence. During the pandemic, our lives have mostly been reduced to only one place. What does this teach us about loneliness? What is a "home" today? And how do we conceive the concepts of longing and belonging? The goal of this course is to write a collective literary dramatic work that might create a new "public space". Our creative work will be framed by readings of Greek and contemporary plays. The course will also include an introduction to the basic elements of dramatic writing. Taught in German.

Distributive: Dist:ART; WCult:W

GERM 82.09 - The Hill We Climb – Down: Poetry and Short Fiction Nature Writing

As every experienced mountaineer is happy not to tell you: getting down will be the hard part. Tough on your knees, exhausting, dangerous. I grew up in a village close to the Alps, which provided me with multiple occasions to learn to hate them (alternatively: read them, see them, wonder) which seems a fair starting point for our adventurous climbs through the hilly landscape of German fiction and poetry. We will be dealing with trips to mountains and the
insights, visions and pitfalls they provide us with. Our
guiding questions will be: is there any such thing as
“nature writing” in German? If yes: how and why does it
differ from the Anglo-American tradition? How is it
possible to translate any—“thing” critically (picking up a
term used by Donna Haraway) into language? And which
kind of language would we like to use – rather: need to
invent – in order to do so?

The course will be taught partly in German, partly in
English. It will contain creative writing exercises related to
stones, heights, plants and animals (of the mountains).
Together we shall reflect on concepts of translation
between languages, between “reality” and language and
within a language itself. I promise to provide some extra
oxygen and the odd marsbar (for real heights).

Open to all classes.

Distributive: Dist:LIT; WCult:W

**GERM 85 - Independent Study**

All terms: Arrange

**GERM 87 - Honors Thesis I**

See German Honors Program

Students are awarded one course credit for successful
completion of this course at the end of the third term of
study. Students subsequently register for GERM 88, and
continue with their coursework into a third term. Students
do not register for a third term. A final grade will replace
the “ON” for both this course and GERM 88 upon
completion of GERM 88 at the end of the third term of
coursework.

**GERM 88 - Honors Thesis II**

See German Honors Program

Students are awarded one course credit for successful
completion of this course. Students who have registered for
GERM 87 register for this course and continue with their
coursework into a third term. Students do not register for a
third term. A final grade will replace the “ON” for both
GERM 87 and this course upon completion of this course
at the end of the third term of coursework.

**Government**

Chair: B.A. Valentino


To view Government courses, click [here](p. 6).

**Department Median Grade Standards**

Except under extraordinary circumstances, median grades
in GOVT courses will not exceed A- in seminars, and B+
in all other courses.

**Requirements for the Major**

Political Science is a highly diverse field united around a
core interest. Political scientists study power, and
especially power used for public purposes: how it is
created, organized, distributed, justified, used, resisted, and
sometimes destroyed. American political science is
traditionally divided into four subfields: American Politics,
Comparative Politics, International Relations, and Political
Theory and Public Law. Students may choose to study
within one of these subfields or may choose courses
according to some other intellectual plan.

Prerequisite: One course in statistics and the methods of
social science: GOVT 10, ECON 10, MATH 10, or QSS
15. The courses LING 10, PSYC 10, or SOCY 10 also
may be substituted for Government 10.

Requirements: The Government Major comprises at least
ten courses chosen to constitute an intellectually coherent
program. (The prerequisite is not considered one of the ten
courses). These courses should include:

1. Two introductory courses;
2. Six additional courses at any level;
3. Two advanced seminars in Government or 1 advanced
seminar in Government and the Honors Program, as the
culminating experience.

The Culminating Experience: To meet the requirement of
an integrative academic experience in the Major, all
Majors will be required to complete one of the following:

1. Advanced Seminar (GOVT 81–89). To complete the
Major in Government, a student must take an advanced
seminar consistent with the goals of the student’s
program. Seminar requirements will include a research
paper in which each student has the opportunity to
integrate material from the study of political science in
the analysis of a specific issue or phenomenon. It is
expected that under normal circumstances seminar size
will not exceed 16. Students are encouraged to take
additional advanced seminars. An Independent Study (GOVT 80) may also be accepted as a culminating experience.

OR

2. Honors Program. The Department offers an Honors Program. Seniors participating in the program and completing the thesis (whether or not they receive honors) will thereby fulfill the culminating experience requirement. Those who enter the program and do not finish the thesis, but complete at least one term of the program, may, with the approval of the Director(s) of the Honors Program, be given credit for GOVT 80.

Requirements for the Minor

The Minor in Government shall consist of:

1. Two introductory courses;
2. Four upper-level courses, chosen to constitute an intellectually coherent program (GOVT 10 may count as one of the upper-level courses);
3. One advanced seminar consistent with the goals of the student’s program.

Special Provisions

1. Under College policy, GOVT 7 (First-Year Seminar) may not be counted toward the Major or Minor.
2. Transfer students will normally be expected to complete:
   a. At least five of the ten courses required for the major on campus, or in courses taught by members of the Department.
   b. At least four of the seven courses required for the Minor on campus, or in courses taught by members of the Department.
3. Courses taken under the Non-Recorded Option (NRO), offered by any department, may not be counted toward the Major or Minor, including prerequisite courses.

Requirements for the Modified Majors

The Department of Government offers three Modified Government Majors that combine Government with Economics or Philosophy or both. Student transcripts will note the **bold** titles of these modified majors.

**Government Modified with Economics**

Prerequisite: Total of three courses, which should include: MATH 3, ECON 1, and GOVT 10 or MATH 10 or ECON 10. The courses LING 10, PSYC 10, or SOCY 10 also may be substituted for Government 10.

Requirements: The Government Modified with Economics Major comprises at least 10 courses in addition to the prerequisite. These courses should include:

1. Two introductory courses in Government (GOVT 3, 4, 5, 6); and two additional GOVT courses in Political Economy (see modified major study form for approved courses).
2. ECON 21, ECON 22, and any other two Economics courses that count toward the Economics major.
3. Two advanced seminars in Government or 1 advanced seminar in Government and the Honors Program, as the culminating experience.

**Government Modified with Philosophy**

Prerequisite: Total of two courses, which should include: PHIL 1 or PHIL 3, and GOVT 10 or MATH 10 or ECON 10. The courses LING 10, PSYC 10, or SOCY 10 also may be substituted for Government 10.

Requirements: The Government Modified with Philosophy Major comprises at least 11 courses in addition to the prerequisite. These courses should include:

1. Two introductory courses in Government (GOVT 6 and 3 or 4 or 5); and any three additional courses in Political Theory.
2. Four additional Philosophy courses, at least 3 of which must be courses numbered 11 or above, in moral, legal, or political philosophy (see modified major study form for approved courses).
3. Two advanced seminars in Government or 1 advanced seminar in Government and the Honors Program, as the culminating experience.

**Government Modified**

Prerequisite: Total of two courses, which should include: ECON 1, and GOVT 10 or MATH 10 or ECON 10. The courses LING 10, PSYC 10, or SOCY 10 also may be substituted for Government 10.

Requirements: The Government Modified Major comprises at least 10 courses in addition to the prerequisite. These courses should include:

1. Two introductory courses in Government (GOVT 6 and 3 or 4 or 5); and any two additional courses in political science.
2. Two Economics courses in political economy and two Philosophy courses in moral or political philosophy (see modified major study form for approved courses).
3. Two advanced seminars in Government or 1 advanced seminar in Government and the Honors Program, as the culminating experience (see below).

The Culminating Experience: To meet the requirement of an integrative academic experience in the Major, all Majors will be required to complete one of the following:

1. a. Advanced Seminar (GOVT 81–89). To complete the Major in Government, a student must take an advanced seminar consistent with the goals of the student’s program. Seminar requirements will include a research paper in which each student has the opportunity to integrate material from the study of political science in the analysis of a specific issue or phenomenon. It is expected that under normal circumstances seminar size will not exceed 16. Students are encouraged to take additional advanced seminars. An Independent Study (GOVT 80) may also be accepted as a culminating experience.

OR

2. Honors Program. The Department offers an Honors Program. Seniors participating in the program and completing the thesis (whether or not they receive honors) will thereby fulfill the culminating experience requirement. Those who enter the program and do not finish the thesis, but complete at least one term of the program, may, with the approval of the Director(s) of the Honors Program, be given credit for GOVT 80.

Apart from these three pre-set modified majors, no other modified Government majors will be approved under any circumstances. This includes both Modified Majors in which Government is the primary component (e.g., Government Modified with History) and those in which it is the secondary component (e.g., History Modified with Government). Students who seek to modify a Major in another department with courses in Government may do so by using the option of a Modified Major without indication of the secondary department (e.g. History Modified).

Non-Recorded Option

Government courses may not be taken under the Non-Recorded Option (NRO). Courses from other departments taken under the Non-Recorded Option may not be counted toward the Major, Minor, or Modified Majors (including prerequisite courses).

Major GPA

The Major GPA is calculated using the average of all completed Government courses (even if the student has completed more than the 10 required courses) with the following exceptions and provisions:

1. The Major pre-requisite are not included in the calculation of the Major GPA;
2. Government courses being used to fulfill the requirements of other majors or minors are not included in the calculation of the Major GPA;
3. Under College policy, GOVT 7 (First-Year Seminar) may not be counted toward the Major or Minor. Therefore, GOVT 7 grades are not included in the calculation of the Major GPA;
4. Although GOVT 99 (the third course in the Honors Program) may not be counted as one of the 10 major courses its grade is included in the Major GPA;
5. Courses with grades E, CT, W or TR are not included in the calculation of the Major GPA.

Career Counseling and Special Programs

Department faculty members serve as advisors to all students Majoring in Government. In addition, designated members of the staff advise students who are considering graduate work and those who may wish to pursue careers in law, diplomacy, politics, or other aspects of public affairs.

Off-Campus Study

Off-Campus Program in London

The Department of Government sponsors a foreign study program at the London School of Economics and Political Science during the fall term. Sixteen students will be selected for the program during the preceding winter term; GOVT 4, GOVT 5, or GOVT 6 serve as prerequisites. Relevant coursework in other departments will also be considered by the program director. Students take two courses with members of the LSE Department of International Relations (GOVT 90 and GOVT 91). The third course (GOVT 92) is a seminar with the Dartmouth faculty member accompanying the group. Please check the Frank J. Guarani Institute for International Education website at https://guarani.dartmouth.edu/ for further information or contact the program director.

Off-Campus Program in Russia

The Government Department and the Arthur L. Irving Institute for Energy and Society are offering an interdisciplinary program for students of government or energy policy. This program features custom-designed courses for the government or energy cohorts with the Higher School of Economics in Moscow and St. Petersburg, Russia, during the spring term. Students will be required to participate in a lecture series or take an accredited class about Russia before embarking on the program. Students take two courses with members of the
National Research University Higher School of Economics (GOVT 96.01 and GOVT 96.02) The third course (GOVT 96.03) is a seminar with the Dartmouth faculty member accompanying the group. Please check the Frank J. Guarani Institute for International Education website at https://guarani.dartmouth.edu/ for further information or contact the program director.

**Off-Campus Program in Washington**

Students in any major may apply to participate in the Government Department’s off-campus program, which is held in Washington, D.C., during the spring term. The program offers three course credits for the following: an independent study that reflects on the links between the internship experience and the academic courses (GOVT 93) and two seminars (GOVT 94 and GOVT 95) offered in Washington by the supervising faculty member. Applications are typically due February 1; the faculty director will interview all applicants and final approval will be made by staff at the Frank J. Guarani Institute for International Education. In Washington, students work at their internships Monday through Thursday. Fridays are reserved for excursions and visits to guest speakers drawn from the Washington community (such as members of Congress, government officials, reporters, lobbyists, political activists, and staff at non-governmental organizations). Each seminar meets twice a week in the evening. Please check the Frank J. Guarani Institute for International Education website at https://guarani.dartmouth.edu/ for further information or contact the program director.

**Honors Program**

The Government Department Honors Program provides qualified undergraduates with an opportunity to complete independent research under the supervision of the members of the Department. Participants define and analyze a specific issue or hypothesis in the field of political science and write a thesis (normally 75 to 125 pages in length). Students should consider the possibility of participating in the Honors Program when first planning their Major. Students must take courses providing necessary preparation in their sophomore and junior years and an advanced seminar in their junior year to allow them to develop a proposal. Students interested in participating in the Government Department Honors Program should obtain information on the Program from the Department Office.

Formally, the Honors Program consists of submission and acceptance of a proposal by the end of the spring term of the junior year and of completion of an Honors thesis within the framework of a three-course sequence during the senior year: GOVT 97 (Fall) and GOVT 98 (Winter) and 99 (Spring). GOVT 97 will count as a seminar and GOVT 98 will count as an upper-level course toward either the Major or Minor. GOVT 99 will not count toward the Major or Minor.

Each student writing an Honors thesis will be supervised by an advisor(s) who, insofar as possible, have expertise in the area concerned. Students are responsible for securing an advisor from the Government Department before submitting an application to the Honors Program. Participation in Government 98 and 99 also entails regular interaction among Honors students under the direction of the Department’s Honors Program Director(s). The Director(s) share with thesis advisor(s) responsibility for determining grades for the two courses.

Admission to the Honors Program and enrollment in GOVT 97 are granted by the Directors if the following requirements are met:

1. Grade point average of 3.3 or higher overall and 3.5 or higher in the Major;
2. Completion of six Government courses, plus the methods and statistics prerequisite to the Major (Government 10 or its equivalents). These six courses must include at least one introductory course, two upper-level courses and one advanced seminar before the end of the junior year;
3. Submission of a proposal by the end of the junior year, and approval by the advisor and the Honors Program Director(s); and
4. A written statement by a faculty advisor, submitted as part of the thesis proposal, supporting the proposed thesis and indicating a willingness to supervise the student. Advisors must confirm that they will be in residence during the terms when they have responsibility for supervising the Honors thesis.

Admission to the Honors Program will be granted by the Director(s) of the Honors Program and advisor(s) if they approve the thesis proposal and are satisfied that the student has the ability to conduct the necessary research. Students enrolled in GOVT 97 or 98 who, for any reason, cannot continue in the Honors Program may have their course enrollment converted to GOVT 80 (Readings in Government) and complete the requirements for this course under the supervision of their original advisors. Conversion must be formally recorded with the Registrar.

The courses GOVT 098 and GOVT 099 will qualify as the Registrar’s official two course credits for participation in the Honors program.

Students who will be away on an FSP or LSA during the spring term of their junior year are encouraged to discuss their thesis topics with potential advisors before the end of winter term. Extensions will not be granted on account of FSP or LSA participation.
Government Website

Please check the Department website at http://www.govt.dartmouth.edu for further information, including updated course offerings.

GOVT - Government Courses

To view Government requirements, click here (p. 407).

Introductory Courses

GOVT 3 - The American Political System
Instructor: Bafumi, Lacy
An examination of the American political process as manifested in voting behavior, parties and their nominating conventions, interest groups, the Presidency, Congress, and the Judiciary. Special emphasis is placed on providing the student with a theoretical framework for evaluating the system including discussions of decision-making, bargaining, and democratic control.
Distributive: Dist:SOC; WCult:W

GOVT 4 - Politics of the World
Instructor: Horowitz
This course will introduce students to the field of comparative government and politics through an examination of selected political systems. Special attention will be given to analytic techniques involved in the study of the field and to certain basic concepts, such as power and political culture, decision-making, and communications.
Distributive: Dist:INT or SOC

GOVT 5 - International Politics
Instructor: S. Brooks, Lind, Powers, Wohlforth
This course introduces the systematic analysis of international society, the factors that motivate foreign policies, and instruments used in the conduct of international relations. Particular attention is given to power and economic relations; to cultural differences that may inhibit mutual understanding or lead to conflict; to nationalism and other ideologies; to the requisites and limits of cooperation; and to the historical structuring and functioning of international institutions.
Distributive: Dist:INT or SOC

GOVT 6 - Political Ideas
Instructor: Clarke, Murphy, Swaine
This course introduces student to political theory by reading and discussing classic works. We will discuss the meaning and significance of law, justice, virtue, power, equality, freedom and property. Readings may include: Plato, Aristotle, Augustine, Aquinas, Machiavelli, Hobbes, Locke, Rousseau, Burke, Kant, Hegel, Tocqueville, Mill, Marx and Nietzsche.
Distributive: TMV

GOVT 7 - First-Year Seminars in Government

Political Analysis

GOVT 10 - Quantitative Political Analysis
Instructor: Costa, Ferwerda, Herron, Horiuchi, Nyhan, Westwood
This course will provide students with useful tools for undertaking empirical research in political science and will help them to become informed consumers of quantitative political analysis. The course will first consider the general theoretical concepts underlying empirical research, including the nature of causality, the structure and content of theories, and the formulation and testing of competing hypotheses. The course will then employ these concepts to develop several quantitative approaches to political analysis. Students will be introduced to two statistical methods frequently used by political scientists, contingency tables and linear regression. By learning to systematically analyze political data, students will gain the ability to better conduct and evaluate empirical research in both its quantitative and qualitative forms. Because of the large overlap in material covered, no student may receive credit for more than one of the courses GOVT 10, ECON 10, MATH 10, PSYC 10, QSS 15 or QSS 45, or SOCY 10 except by special petition to the Committee on Instruction.
Distributive: QDS

GOVT 16 - Data Visualization
Instructor: Cooper, Horiuchi
Big data are everywhere – in government, academic research, media, business, and everyday life. To tell the stories hidden behind blizzards of data, effective visualization is critical. This course primarily teaches R, a free software environment for statistical computing and graphics, which is widely regarded as one of the most versatile and flexible tools for data visualization and, more broadly, data science. Students completing the course will know how to “wrangle” and visualize data critical to their scientific endeavors.
Cross-Listed as: QSS 17
Distributive: Dist:TLA

GOVT 18 - Introduction to Political Game Theory
Instructor: Herron
Game theory is used to study how individuals and organizations interact strategically, and this course introduces game theory with a focus on political science
applications. Game theory is a standard tool in the social sciences, and insights from game theory are essential to understanding many facets of politics, such as political party competition, legislative politics, international relations, and the provision of public goods. Among other topics, the course will cover normal and extensive form games, Nash equilibria, imperfect information, mixed strategies, and, if time permits, the basics of games with incomplete information. A course in game theory will change that way that one views the world.

Prerequisite: MATH 3 or the equivalent.

Cross-Listed as: QSS 18

Distributive: QDS

GOVT 19.01 - Applied Multivariate Data Analysis

Instructor: Lacy

This course introduces mathematical and statistical models in the social sciences beyond the level of bivariate regression. Topics to be covered include multivariate regression, selection bias, discrete choice, maximum likelihood models, multi-level modeling, and experiments. We will use the lse models to study voter turnout, elections, bargaining in legislatures, public opinion, political tolerance, the causes and duration of wars, gender bias in employment, educational testing, poverty and income, and a host of other topics. Students will write a paper of original research using some of the methods covered in class.

Distributive: Dist:QDS

GOVT 19.05 - Computational Text Analysis for the Social Sciences

Instructor: Westwood

Language is the medium for politics and political conflict. Candidates debate during elections. Representatives write laws. Nations negotiate peace treaties. Clerics issue Fatwas. Citizens express their opinions about politics on social media sites. These examples, and many others, suggest that to understand what politics is about, we need to know what political actors are saying and writing. This course introduces techniques to collect, analyze, and utilize large collections of text for social science inferences. Students will also have the opportunity to develop their programming abilities.

We will explore a range of datasets from the text of The Federalist Papers to the millions of tweets sent to and from members of Congress.

Cross-Listed as: MATH 05.01 QSS 30.02

Distributive: Dist:TLA

GOVT 19.06 - By the Numbers: Race, Incarceration and Politics

Instructor: Cottrell

More than half a century after the height of the Civil Rights Movement, inequalities between black Americans and white Americans persist. Across a myriad of measures—including health, employment, income, wealth, education, and incarceration—black Americans are fundamentally different than whites. Leveraging contemporary data and modern quantitative techniques, we evaluate black-white racial gaps by the numbers and among other things consider how racial inequalities in the United States might alter the American political landscape.

Cross-Listed as: QSS 30.06

Distributive: Dist:QDS

Upper-Level Courses that Cross-Subfields

GOVT 20.01 - Women and Politics

Instructor: D. Brooks

This is a general course about gender and politics in which we will examine the roles of women and men as voters, activists, and politicians. We will begin by examining a wide range of relevant issues, including: how gender affects political participation and partisan preferences, how boys and girls are socialized differently into politics, how public opinion regarding domestic and foreign policy sometimes differs for women and men, and how a different gender balance among office holders might be expected to affect representation, policy, and governance. The course will then critically examine various barriers that women may face in the pursuit of elected office in the U.S., and we will also expand our view beyond politics, by analyzing women in non-political leadership positions in order to draw useful comparisons. Finally, the course will examine the role of gender in an international context, comparing gender dynamics in the U.S. with those of other countries in order to better understand the future of women in politics in the U.S. and in the world at large. This course is appropriate for all students, from all majors (there are no prerequisites).

Cross-Listed as: WGST 31.04

Distributive: Dist:SOC; WCult:CI

GOVT 20.02 - Capitalism and Government

Instructor: Avishai

We use the term government and "commonwealth" interchangeably because we expect government to advance the actions of free people creating wealth—not just rich and propertied people, but all who benefit from economic development. As Adam Smith put it, it is the responsibility of the "sovereign" to "facilitate commerce-in-general."

This course will trace the career of this assumption back to
its originators. It will begin with the evolution of market relations from the peculiar history of seventeenth-century Britain. It will then look at the succession of thinkers who, having embraced the novel scientific methods of the day, sought to understand economic affairs as themselves governed by scientific laws; and who then sought to ground the legitimacy of commonwealths in laws, regulations and interventions that engendered wealth. One goal of the course is to familiarize students with foundational thinkers who gave us the discipline of economics: Hobbes, Locke, Rousseau, Smith, Ricardo, Marx, Mill, and Spencer. But the final goal is to consider how foundational ideas have shaped political economic debates in America for the past hundred years: Keynes, Von Hayek, and Schumpeter.

Distributive: Dist:SOC

GOVT 20.03 - Morality and Political Economy
Instructor: Clark
How do people attach moral significance to their economic activity? How durable or malleable are religious and philosophical traditions in shaping moral ideals surrounding economic phenomena? And what is the role of government in promoting a “moral” economy? By surveying the thought of Greeks and Romans, Christians, Muslims and Jews, ancients and moderns, students will experience a wide-ranging introduction to the problem of how to define economic virtue in an age of globalization.

Distributive: Dist:SOC; WCult:W

GOVT 20.05 - Revolution, Reform and Reaction: The Cold War in Latin America
Instructor: DeShazo
This course examines and analyzes the key variables that determined the course of Latin America's political, economic, and social evolution during the period of the Cold War (1946-1990). It focuses on the relationship of Latin America to the global Cold War, the manifestation of U.S. and Soviet foreign policy in the region, and the responses of key actors in Latin America to the geo-strategic, ideological and political rivalry between the two superpowers.

Cross-Listed as: LACS 50.09
Distributive: Dist:INT; WCult:NW

GOVT 20.07 - Religion and World Politics
Instructor: Baum
This course examines the relationship between religious and political change, focusing on Africa, the Middle East, South Asia, and Ireland. Within Africa, we will examine the development of a theology of racial separation, known as apartheid, and its opponents; as well as religious tensions in Nigeria, most notably the challenge of Boko Haram to the cohesion of the Nigerian state. Topics will include theories concerning the clash of civilizations, the rise of fundamentalist political movements, liberation theologies, religion and violence, the relationship of religions to the State, and the religious dimensions of political movements. We will also examine the way in which religious and political perspectives on such issues as gender, sexuality, race, and war reinforce or clash with one another in the public arena of national and/or regional debates.

Cross-Listed as: REL 69
Distributive: TMV

GOVT 20.08 - America and the Middle East
Instructor: Fishere
The United States has played a major role in shaping the political, economic and cultural development of the Middle East. Oil, global security, Israel’s survival, and promotion of democracy, all have drawn the US into the complex politics of the Middle East since the 1920s. This course introduces students to various aspects of this role and the reactions it triggered. It covers the role played by American missionaries and travelers/immigrants around the turn of the 20th century. It analyzes the transformative impact of the discovery of Oil, the establishment of the state of Israel, the Cold War, Turkey’s integration into NATO and the US attempts to establish a security regime for the Middle East. It also examines how Americans viewed the Middle East and their role in its life. In addition, the course then takes the students in a tour d’horizon of US role in Middle East politics: its involvement in the Arab-Israeli Peace Process, its responses to Radical Islamism and 9/11, the invasion of Iraq and its consequences, the uneasy relationship with a changing Turkey, and its policy of “democracy promotion”. It discusses the doctrines defining US role in the region since Truman until Obama’s “disengagement”. Combining academic books with novels and movies, this course should give students a rounded view of the role and lasting impact of the United States in one of the world’s most turbulent regions.

Cross-Listed as: MES 12.04
Distributive: Dist:INT or SOC; WCult:NW

GOVT 20.09 - Populism and Democracy in Europe
Instructor: Aha
This course aims to familiarize you with post-WWII European politics and is divided into two sections: European political systems, and the European Union.

The first section analyzes the political institutions of European countries through a comparative approach. We will focus on political parties, identity politics, electoral systems, and systems of government. The second section
analyzes the history and institutions of the European Union, and discusses important issues and challenges, including enlargement, the eurocrisis, and Brexit. Throughout the course, we will explore the impact of populism on politics in Europe, and what this means for the quality of democracy both within countries and the EU.

Distributive: Dist:INT or SOC

GOVT 20.10 - Markets and Their Critics
Instructor: Clark
The purpose of this course is to explore the nature and implications of the market primarily as a political, but also as a social, economic and even moral phenomenon. From being a marginal, controlled, and secondary social institution in most early societies, markets have risen to become a central mode of social coordination and economic production, distribution and exchange in modern ones throughout the Western and non-Western world. What is the best way of thinking about this transformation in the prominence of the market in human life? Why has it happened, whom has it benefited, whom has it harmed, what functions has it served, what new problems has it created, and what if anything are the limits on the social utility of markets?

Distributive: Dist:INT or SOC

GOVT 27 - Racial Justice
Instructor: Threadcraft
This course introduces students to major contemporary racial justice debates. It also considers how theories of racial justice might better include the concerns of women of color as well as LGBT and trans persons of color. Throughout the course we will examine questions such as: What constitutes racial injustice? How is gender implicated in said injustice? What, if anything, do blacks and other people of color owe to one another? Should political possibility and pragmatism bound thinking regarding corrective racial justice?

Cross-Listed as: AAAS 21 WGSS 40.03
Distributive: Dist:SOC

American Government

GOVT 30.02 - Leadership and Political Institutions
Instructor: Fowler
This course explores how political leaders in the U.S. reconcile the constraints of public office with the opportunities to make major changes in society. Drawing from diverse materials on the executive, legislative and judicial branches of government, the course addresses the following questions: How does leadership differ in the public and private spheres? What personal skills and attributes affect the success or failure of leaders of political institutions? What criteria do/should citizens apply to public leaders? How do political context and historical contingency shape institutional leadership?

Distributive: Dist:SOC; WCult:W

GOVT 30.03 - Political Economy in the Age of Google
Instructor: Avishai
This course explores the shifting relationship between private corporations and government policy in the networked world. As advanced technologies reshape business architectures and transform the terms of competition, the actions of government agencies must change correspondingly. We shall analyze the knowledge economy in microcosm—especially evolving network effects—and ask the urgent questions. What public infrastructure and standards are necessary to facilitate growth? What are the limits of established notions of intellectual property—patents, for example? What new metrics might be used to account for corporate performance and valuable assets? What are the implications of peer networks for the delivery of the services—from healthcare to education—that citizens have come to expect in a democracy?

Distributive: Dist:SOC

GOVT 30.04 - Political Misinformation and Conspiracy Theories
Instructor: Nyhan
Why do people hold false or unsupported beliefs about politics and why are so those beliefs so hard to change? This course will explore the psychological factors that make people vulnerable to political misinformation and conspiracy theories and the reasons that corrections so often fail to change their minds. We will also analyze how those tendencies are exploited by political elites and consider possible approaches that journalists and civic reformers could employ to combat misperceptions.

Distributive: Dist:SOC

GOVT 30.07 - American Political Economy
Instructor: Sorens
This course is an introduction to the political economy of the United States. You will learn about the politics behind economic policy-making and the role of economic processes in politics throughout U.S. history under three headings: ideas, interests, and institutions. We will investigate how economic policies and ideas have changed in the U.S., the relative importance of ideas, interest groups, and political institutions in setting the trajectory of American economic policies, and how American political institutions have evolved to meet new economic challenges. The topics we study include foreign trade and investment, business regulation, slavery and the Civil War,
monetary policies and the Great Depression, federalism, and the welfare state and social insurance.

Distributive: Dist: SOC; WCult: W

GOVT 30.09 - Law, Courts, and Judges
Instructor: Nachlis
This course explores fundamental questions about American law, courts, and judges. Do courts administer “Equal Justice Under Law,” as the Supreme Court’s facade promises, or are cases determined by “what the judge ate for breakfast,” as Judge Jerome Frank famously claimed? Are judges political? Can courts produce social change, or is law a conservative force? What incentives shape the legal profession? Issues addressed range from civil rights to small claims courts and street harassment.

Cross-Listed as: PBPL 028
Distributive: Dist: TMV; WCult: W

GOVT 30.10 - American Conservatism
Instructor: Latimer
In 1950, Lionel Trilling characterized conservatism as a collection of “irritable mental gestures that seek to resemble ideas.” He was wrong; this course shows why. If American liberalism is primarily concerned with equality, conservatism places greater emphasis on religion, tradition, community, virtue, authority, and (in certain respects) liberty. In addition to these, the course considers the influence of mid-century anti-communism on the contemporary conservative movement. Finally, we examine the recent claim that much of contemporary American conservatism is reactionary.

GOVT 30.11 - Policy Implementation
Instructor: Nachlis
Good policies are neither self-executing nor self-enforcing. Likewise, bad policies are not self-destructing. Indeed, when the President signs a law, this is but the beginning of a new set of equally important political activities and policy battles. This course explores central features of implementation, including bureaucratic activity, judicial review, and street-level administration, and central concepts including principal agent relationships, delegation, oversight, interpretation, maintenance, and erosion, through key cases, including police, health care, and civil rights.

Cross-Listed as: PBPL 027
Distributive: Dist: SOC; WCult: CI

GOVT 30.12 - Affirmative Action in Higher Education
Instructor: Herman
Since John F. Kennedy’s 1961 executive order to implement affirmative action policies, institutions of higher education have looked for ways to encourage minority and low-income students to matriculate. Some institutions, such as such as Harvard, UC Berkeley, UT Austin, and UMichigan, have experienced lawsuits against the policy’s implementation. As universities stress their desire for diverse, well-rounded, high achieving classes and continue to implement methods to attract highly qualified students, there is disagreement about which methods are both effective and fair. How can educational administrators, parents and community members work together to improve college access and increase equality? Do we still need to “take affirmative action to ensure that applicants are...treated...without regard to their race, color, religion, sex, or national origin,” or has affirmative action outlived its original purpose? Has the college access gap widened or shrunk? Are students’ experiences on campus living up to the goal of equal opportunity? This course will explore the topic of affirmative action through some traditional classroom techniques (reading/ writing/ discussion) as well as experiential education techniques (such as creating a public policy portfolio project, having conversations with professionals who administer affirmative action at colleges and universities, and pitching proposals to a panel of policy experts).

The central work of the course involves creating a portfolio of venues to explore, design, publicize, and promote an affirmative action or anti-discrimination policy/program. Completing the course readings and discussions will develop the skills necessary to complete the portfolio. Throughout the course, students will work in small groups to develop a policy campaign using techniques from writing to video to speeches. This course design attempts to raise students’ awareness of the multiple communication modes for making a compelling and persuasive policy proposal. To create their portfolios, students must advance an issue, demonstrate the techniques they have used to study and develop it, and effectively persuade their audience of the policy/program’s value. Student groups will meet with the professors biweekly or more frequently (as needed) to stay on track and to get help with process and resources.

Cross-Listed as: PBPL 027
Distributive: Dist: SOC; WCult: W

GOVT 30.14 - Health Politics and Policy
Instructor: Nachlis
Is health care a right? Why does the United States spend more than comparable countries on health care but experience worse outcomes, and also lack universal coverage? How might the health care system be reformed to increase access and quality, and reduce costs? We consider these fundamental questions and explore a range of key issues, including health equity, mental health care, overdiagnosis and overtreatment, drug regulation, state

Distributive: Dist:SOC

**GOVT 30.15 - Identity, Liberalism, and Democracy**

Instructor: Mounk, Plunkett

What would a just form of democracy look like in a pluralistic society that involves people with diverse identities and values? What policies and laws should the state adopt to counter-discrimination and social inequality, and how do they fit (or conflict) with ideals of liberalism? What are social identities, and how do they operate? How are social identities mobilized in different social movements, such as forms of fascism and populism? In this interdisciplinary course, we will examine these and other questions about social identity and its relation to ideals of liberalism, democracy, and justice.

Cross-Listed as: PHIL 01.19

Distributive: Dist:TMV

**GOVT 31 - Campaigns and Elections**

Instructor: Bafumi

Do campaigns change election outcomes? When do they matter and when do they not? How should campaigns be conducted for optimal results on Election Day? This course will seek to answer these questions from both academic and practical perspectives. Particularly, it will investigate campaign strategies; issues, money and communications in political races; the behavior of voters; and possible election reforms. Students should leave this class with a deep understanding of political campaigns for elective office.

Distributive: Dist:SOC; WCult:W

**GOVT 34 - Congress and the American Political System**

Instructor: Westwood

This course introduces students to the analysis of public policymaking in the U.S. Congress. Special attention is paid to the evolution of the House and Senate as institutions, to elections and to the interactions among elections, institutional arrangements, and policymaking.

Distributive: Dist:SOC; WCult:W

**GOVT 35 - The Presidency**

Instructor: Nyhan

This course highlights central themes in the development, organization, and functioning of the American Presidency. It combines the study of presidential behavior with an analysis of its complex and evolving institutional framework. Since the office requires the President to play multiple political roles simultaneously, the course will assess the institutional and behavioral components of these roles. It will present an integrated theoretical and empirical conception of presidential governance.

Prerequisite: GOVT 3 or by permission of the instructor.

Distributive: Dist:SOC; WCult:W

**GOVT 37 - Polling, Public Opinion, and Public Policy**

Instructor: Barabas

The results of public opinion polls frequently dominate political news coverage and they often alter the behavior of politicians; moreover, political polls have started becoming news in their own right in recent years. In this course, we will explore the techniques that pollsters use to examine public attitudes and we will consider how that information can, and should, be used to formulate public policy. We will engage questions such as: To what degree can the public form meaningful preferences about complex political issues? What does a political opinion consist of, and how can it be measured? How can potential errors in polls be avoided? How does partisanship influence public opinion, and where do Americans stand on key policy issues? To what extent should politicians try to change public opinion rather than respond to it? How has the nature and role of public opinion shifted in an era of rapidly advancing polling technology and a changing media environment? In addition to examining the pertinent literature on topics such as these, we will conduct and analyze an actual public opinion survey as a class. Through a combination of theoretical and hands-on learning, students will leave the course with a firm understanding of these dynamics.

Cross-Listed as: PBPL 044 QSS 30.20

Distributive: Dist:SOC; WCult:W

**GOVT 39 - Political Psychology**

Instructor: Jerit

This class examines the psychological origins of citizens' political beliefs and actions. We analyze different aspects of human psychology, including personality, motivation, values, information processing and emotion. This course is for anyone who has ever wondered how people form their political opinions, why they vote the way they do, and whether ordinary citizens are well suited to democracy. Readings will be drawn from the fields of political science and psychology.

Distributive: Dist:SOC

**Comparative Politics**

**GOVT 40.02 - Politics of India**

Instructor: Chauchard

India, soon to be the world's most populous nation, has surprised observers with its capacity to remain democratic - but India's ability to face staggering political, social and
economic challenges remains an open question. The class will explore several questions: To what extent are state institutions responsive to citizens’ needs? To what extent are they fair and independent? Has democracy challenged the power of old elites? How did politicians handle India’s potential for conflict? Has democracy reduced poverty?

Distributive: Dist:INT or SOC; WCult:W

GOVT 40.03 - Politics of Japan: A Unique Democracy?
Instructor: Horiuchi

This course offers a survey of Japanese politics with a focus on understanding the electoral and policy-making processes in Japan from theoretical and comparative perspectives. No prior knowledge of Japanese politics is required. The course will explore electoral systems and voting behavior, candidate selection and electoral campaign, dynamics of party competition, executive-legislative relationships, local politics and central-local relationships, the roles of the mass media and civil society in policy making, etc.

Cross-Listed as: ASCL 67.01
Distributive: Dist:INT or SOC; WCult:NW

GOVT 40.05 - Politics of Ethnicity
Instructor: Chauchard

This course examines the intersection of ethnicity and politics by drawing on a combination of theoretical works and case studies to answer questions such as: What are ethnic groups and why might they matter for political behavior? How do political institutions shape ethnic identities? When does ethnicity serve as the basis for conflict and violence? Our focus will be comparative, and we will explore many parts of the world, particularly Africa, India, and Latin America.

Distributive: Dist:INT or SOC; WCult:CI

GOVT 40.06 - Elections in Emerging Democracies
Instructor: Chauchard

Although modern democracy is a western invention, it is now the dominant form of government in the world, and most democracies do not resemble their western counterparts. What are the implications of these differences in the daily practice of democracy? How does democracy concretely work in countries with high levels of poverty, conflict, inequality, ethnic diversity and/or illiteracy? How does democracy in "developing countries" diverge from western ideals and western realities? Drawing on the experience of countries in Asia, Africa and Latin America, the class will compare and discuss the way democracy is practiced in developing countries. We will explore a number of themes, including how citizens understand democracy, political culture, clientelism/patronage, corruption, electoral violence, accountability, and ethnic voting.

Distributive: Dist:INT or SOC; WCult:W

GOVT 40.07 - Comparative Political Economy
Instructor: Sorens

This course is an introduction to comparative political economy, the comparative politics of domestic economic policies. Topics include: market reforms in developed, developing, and postsocialist countries, varieties of welfare capitalism, income inequality and political stability, (de)regulation and privatization, federalism, the effects of political institutions on economic development, interest groups, property rights, the rule of law, and corruption. We will look in depth at both developed and developing countries, with an emphasis on understanding why they choose (or end up with) the policies and institutions that they have, even when in some cases these policies and institutions might hamper development or increase poverty. The central goal of this course is to develop students’ ability to reason through political explanations of economic policies.

Distributive: Dist:INT or SOC; WCult:NW

GOVT 40.09 - Politics of Israel and Palestine
Instructor: Avishai, Magid

This course explores the century-old conflict as seen from the political structures and changing narratives of Israelis and Palestinians, including the Zionist movement and the responses of the Palestinian Arab community to it; the formation of the Arab national movement as a whole—and within this, the claims of Palestinians before and after the British Mandate; the founding of the state of Israel and the formation of the post-1948 Palestinian national movement; the aftermath of the 1967 war; the start of the Israeli occupation and the latter’s impact on Israeli institutions, economy, and political parties; and the Palestine Liberation Organization and the founding of Hamas. We will explore contemporary political and economic developments in light of the global forces operating on the region, and consider the plausibility of a two-state solution.

Cross-Listed as: JWST 40.01 MES 12.09
Distributive: Dist:INT or SOC; WCult:CI

GOVT 40.15 - Commodities, Globalization, and Development in Latin America
Instructor: DeShazo

The course traces the economics history of Latin America since 1870 by highlighting the different stages in macro-policy (export-led growth, import substitution industrialization, current models juxtaposed) and by focusing on the role of commodities in the national and regional developmental process. Specific commodities to
be studied include silver, guano, nitrates, coffee, sugar, cereals, beef, henequen, rubber, cocaine, and oil. Topics will be covered more or less chronologically, with the last classes analyzing current developments. Particular attention will be paid to the larger economies of the region (Mexico, Brazil, Argentina, Colombia, Peru, Chile, Venezuela) and the development strategies they pursued. The course will take on the issues of why Latin America has failed to reach levels of development achieved by industrialized countries in Europe and Asia and what can be done to achieve sustained development.

Cross-Listed as: LACS 50.08
Distributive: Dist:INT; WCult:NW

**GOVT 40.17 - Jerusalem: A Political History**
Instructor: Sternfeld

Controversy surrounds the future of Jerusalem - and not just in our times. For more than 3,000 years, ever since Jerusalem first appeared on the stage of history as a Holy City and the City of the Kingdom, it has been enveloped in political and theological struggles. Countless battles and wars have been associated with Jerusalem, the city that is home to the three monotheistic religions.

Cross-Listed as: JWST 40.03
Distributive: Dist:SOC; WCult:CI

**GOVT 40.19 - State-building in the Middle East and North Africa**
Instructor: Vandewalle

Trying to explain the differential outcomes of the Arab Spring uprisings in the Middle East and North Africa, this course analyzes the legacy of state-building in the Middle East and North Africa. It argues that the impact of colonialism, of the type of financial resources at the disposal of local governments, and of the emergence (or lack thereof) of durable state institutions proved instrumental in whether or not local governments were able to construct modern states.

Distributive: Dist:INT or SOC; WCult:NW

**GOVT 40.20 - Immigration Politics**
Instructor: Ferwerda

This course examines how countries in Europe and North America are responding to (and being transformed by) international migration. In the first half, we will focus on the determinants of migration, as well as governments’ attempts to manage and control population flows. In the second half, we will examine the increasingly contentious politics surrounding immigrant settlement, and will investigate the consequences of policies that seek to promote the exclusion or inclusion of immigrants after arrival.

Distributive: Dist:INT or SOC; WCult:W

**GOVT 40.21 - Perception and Misperception: The Politics of the Cold War**
Instructor: Vandewalle

The last half of the twentieth century was marked by a great rivalry between the United States and the Soviet Union, resulting in a “confrontation in which the major powers had the ability to destroy life on earth.” Across the globe, in a series of either direct or indirect conflicts, at different levels and in dissimilar ways both sides aimed to minimize and circumscribe the power and influence of the other side, often using local proxies to promote their interests. In this course we look not only at a number of Cold War conflicts since 1945—the Korean War, the Cuban Missile Crisis, the Berlin Wall crisis, the war in Vietnam, and the attempts at destabilization in Latin America—but also investigate the driving motives and perceptions on each side that fueled each crisis and its outcome.

Distributive: Dist:INT

**GOVT 40.22 - The Making of the Modern Middle East**
Instructor: Anzinska

This panoramic course surveys major developments in Middle East history, politics and society. Covering more than a two hundred year stretch, we will move across an expansive geography encompassing North Africa, the Levant, the Arabian Peninsula, and parts of Central Asia. Throughout this journey, particular attention will be paid to five important themes: imperialism, modernization, nationalism, Islam, and revolution. In the process of navigating these seminal topics, we will develop a more nuanced understanding of the modern Middle East and a greater appreciation for the insights offered by primary sources, from poems and national speeches to songs and motion-pictures, into the region’s dynamic past. We will begin with a basic question – what and where is the Middle East? – prior exploring the impact, importance and mechanics of empires (Ottoman, French, British). Once elucidating this imperial backdrop, we will study sweeping reforms, struggles for independence, and the fashioning of nation-states, before examining a series of revolutionary moments, America’s presence in the Middle East, and the “Arab Spring” and its aftermath. Whenever possible, we will strive to illuminate ordinary people, as opposed to only elite actors, who contributed to the making of the modern Middle East.

Distributive: Dist:INT or SOC; WCult:NW

**GOVT 40.23 - Energy and Society in the Middle East and North Africa**
Instructor: Chad, Vandewalle
This course focuses on the economic, political, social and cultural consequences of rapid development in the hydrocarbon states of the Middle East and North Africa: states whose development is highly dependent on access to the global economy for income from oil. The course aims to provide students with an understanding—from both a Social Science and a Humanities perspective—of how hydrocarbon-led development has dramatically changed the economic, political, and cultural life of what were previously tribal societies.

Cross-Listed as: MES 4.01
Distributive: Dist:INT; WCult:NW

**GOVT 40.24 - Dictatorship and Dissent: the Middle East in a Global Context**

Instructor: Ellasswary

Dictatorship is the defining characteristic of some governments, especially in the Arab world. Dictatorship is usually described as a strongman imposing his will on the nation through sheer force. French political philosopher Étienne de La Boétie (1530–1563) in his seminal essay *Discours de la servitude volontaire* (*Discourse on Voluntary Servitude*) presented the existence of a dictatorship as a relationship between two parties. Before every dictator is a population that is willing to accept rule by the dictator. The dictator cannot impose his will on a people that shun a dictatorship. Extrapolating from this concept, we can consider dictatorship to be a syndrome. The dictionary defines a syndrome as “a group of signs and symptoms that occur together and characterize a particular abnormality or condition.” In this course, students will examine the condition, signs, symptoms, and cures for the malady of dictatorship.

Cross-Listed as: MES 12.06

**GOVT 40.25 - Introduction to Middle East Politics**

Instructor: Fishere

This is a gateway course to the political life of the Middle East. It will introduce students to the main political issues and dynamics of the region, including: - Conflict and civil wars, from the Arab-Israeli conflict to the Syrian collapse - Security arrangements, especially in oil-rich countries - The political economy of (mal)development - Political ideologies and the conflict between liberalism, nationalism and Islamism - International politics and the American presence in the region - Rivalries and alliances among Middle Eastern powers, including Iran and Turkey - The return of authoritarianism and stalled democratic processes - Terrorism - Anti-colonialism We will cover the basic contours and intellectual debates around these issues, analyzing the main texts tracing their development. The aim of this course is not only to familiarize students with the basic political features of the Middle East but also to equip students with the tools necessary to pursue future academic and analytical work on the politics of the region.

Cross-Listed as: HIST 36.02
Distributive: Dist:INT or SOC

**GOVT 42 - Politics of Africa**

Instructor: Horowitz

This course examines post-colonial politics in sub-Saharan Africa, with particular focus on the events of the last decade. The course will be structured around three main themes: (1) patterns of economic growth and decline; (2) the transition to democratic political systems; and (3) political violence and civil conflict. While the course covers broad trends across the continent, it will also draw on case studies from particular countries.

Prerequisite: GOVT 4 is strongly recommended but not required.

Cross-Listed as: AAAS 87.05
GOVT 44 - Globalization and Global Development
Instructor: Vandewalle
The latest wave of economic globalization has differently affected various regions of the world. One of the most often repeated (and disputed) assertions is that the economic power of the United States is fading and that the fortunes of the so-called BRIC countries (Brazil, Russia, India, and China) as well as other selected Emerging Economies ("the Second World") will mark the dawn of a more equal and, economically speaking, a more balanced global economy. The most recent financial crisis has put into question many of the assertions on both sides of this debate, in ways that question the very basic assumptions analysts of the global economy have been making since the creation of the Breton Woods system in the aftermath of World War II. In this course we investigate the impact of the economic boom of the last two decades, the current crisis, and their impact on the economic fate and standing of particularly the United States, India, China, and Russia. We focus in part on efforts to create a new financial architecture for the global economy, and investigate how the debate between markets and state intervention has been affected by the ongoing financial crisis-and what this may mean for both countries that rely extensively on markets, and for those that strategically promote state intervention.

GOVT 48 - Redistribution, Inequality, and Diversity
Instructor: Ferwerda
This course examines the comparative politics of redistribution within Europe and North America. In the first half of the course, we will focus on understanding public attitudes towards redistribution and will explore cross-national variation in inequality and redistributive policy. In the second part of the course, we will grapple with the political sustainability of the welfare state. In particular, we will examine the degree to which racial and ethnic diversity poses a challenge to redistributive policy.

GOVT 49.01 - Politics in Latin America
Instructor: Carey
This course is an introduction to the political development and the current context of politics in Latin America. It combines material on historical and theoretical topics with material on the current politics of specific countries. The central theme of the course is to evaluate the development of political institutions in Latin America and the challenges currently confronting democracy in the region. We examine the conditions under which Latin American republics gained independence in the 19th Century, and their trajectories of political and economic development.

We then consider a range of political challenges confronting Latin American countries, including corruption and criminal violence, human rights abuses past and present, and revolutionary and populist challenges to state authority.

Cross-Listed as: LACS 051

Distributive: Dist:INT or SOC; WCult:NW

GOVT 49.04 - Sex and the State in Latin America
Instructor: Baldez
This course examines women’s movements in Latin America. Women in Latin America are perhaps the most highly mobilized population in the world. Throughout the region women have organized around myriad issues, including the right to vote, human rights, poverty, legal rights, anticommunism, the workplace, race, ethnicity and war. Women’s efforts to challenge fiercely repressive regimes, deeply entrenched norms of machismo and extreme poverty defy conventional stereotypes about women and provide us with inspiring examples of how to sustain hope during difficult times. The seminar will introduce students to recent scholarship on women’s movements in Latin America in the 20th century and seek to understand the emergence, evolution and outcomes of women’s movements in particular countries and cross-nationally.

Cross-Listed as: LACS 52 WGSS 31.01

Distributive: Dist:SOC; WCult:NW

GOVT 49.05 - Protest and Parties in Latin America
Instructor: Baldez
This course will examine the conditions that prompt people organize on behalf of their collective interests, how those movements evolve, and under what conditions efforts to mobilize will succeed. We compare protests, revolutionary movements, social movements, political parties and other forms of political action in various countries throughout the

Cross-Listed as: LACS 53

Distributive: Dist:INT or SOC; WCult:NW

GOVT 49.06 - U.S. – Latin America Relations: The Dynamic of Foreign Policy Formulation
Instructor: DeShazo
This course examines how different forms of collective identity—including class, race, ethnicity, indigeneity and gender—have shaped Latin American and Latino politics in the 20th and 21st centuries. We will focus on a range of cases in Latin America and the U.S. to address the following questions: In what ways does the state create and sustain certain categories of identity as the basis for political inclusion and exclusion? What explains changes
in the political salience of certain categories of collective identity? Why do some identities become politically salient and others do not? How have forms of political representation changed over the past century? How does state policy affect the ability of groups to mobilize and press for demands? How do organized groups affect state policy? What are the possibilities and limitations of identity-based mobilization?

Cross-Listed as: LACS 50.11
Distributive: Dist:INT; WCult:W

International Relations

**GOVT 50.02 - Civil War, Insurgency, and the International Response**
Instructor: Friedman
This course examines why civil wars begin, how they are fought, how they end, and what the international community can do to mitigate their cost. We will use these ideas to ground analysis of prominent conflicts, including Iraq, Vietnam, Colombia, and Congo. Some specific topics include theories of insurgency and counterinsurgency; successes and failures of international peacekeeping; the role of ethnicity and religion; and the relationship between civil conflict and economic development.
Distributive: Dist:INT or TMV; WCult:NW

**GOVT 50.03 - The Rise of China**
Instructor: Lind
This course explores the growth of Chinese wealth and power, and implications of that growth for international politics. We begin by studying China’s economic and military rise, debating whether China can join the ranks of the world’s great powers. Then we discuss how China’s growing power will affect its relations with world’s current superpower, the United States. Is China catching up to the US? Are the United States and China doomed for superpower confrontation, or can China’s rise be accommodated within the US-led international order? In addition, we explore the implications of China’s rise for its relations with its neighbors, and for regional stability. Not open to students who have received credit for GOVT 81.10.
Distributive: Dist:INT or SOC; WCult:NW

**GOVT 50.04 - War and Peace in the Modern Age**
Instructor: Valentino
This course is designed to acquaint students with the fundamentals of war and peace; that is, with the political uses of military power and the respective roles of military and civilian leaders in formulating and implementing foreign policy. We will also investigate how war affects civil society's social movements and how the characteristics of states’ domestic politics arrangements affect or constrain the ways that leaders choose to execute their most preferred strategies. Finally, we will also try to come to an understanding of what war is actually like for those, both combatant and non-combatant, that must participate in war on a daily basis.
Distributive: SOC

**GOVT 50.06 - Nuclear Weapons: Physical and Strategic Effects**
Instructor: Press
This course examines the effects of nuclear weapons on the conduct of international politics. It begins by examining the physical properties of nuclear weapons, and then uses evidence from the Cold War to address the following questions: Why did the United States and Soviet Union build such large nuclear arsenals? What did they plan to do with these weapons? How did nuclear weapons fit into U.S. and Soviet military strategy at various phases of the Cold War? The course uses evidence from the Cold War to evaluate theories of nuclear deterrence and the so-called "nuclear peace." The last section of the course focuses on current issues relating to nuclear weapons: the spread of nuclear weapons in the developing world, the dangers of nuclear terrorism, the potential for effective missile defenses, and the changing strategic nuclear balance of power.
Distributive: Dist:INT or SOC

**GOVT 50.08 - Psychology and International Politics**
Instructor: Powers
What, if anything, can psychology tell us about international security? This seminar looks at the various ways in which IR scholars have drawn upon psychology to enhance existing theories and develop new insights into world politics. Political psychology has been leveraged to make sense of puzzles at the core of IR, from nuclear proliferation to war and institutional cooperation. The course is designed around substantive psychological topics, which will form the basis of our critical discussions each week. Topics include decision-making, risk assessment, trust, reputation, emotions, social identity, nationalism, and leader personality/beliefs. This course does not require a background in psychology.
Prerequisite: GOVT 5
Distributive: Dist:SOC

**GOVT 50.16 - THE RISE AND FALL OF GREAT POWERS**
Instructor: Lind
Great powers disproportionately affect the stability and character of world politics. In this course we explore the complex and consequential process that is the rise and fall
of great powers. We examine the nature of the international system, the nature of power, and how the anarchic world system encourages countries to behave. We then turn to the process of “rising” and study how countries achieve economic growth. We examine what is needed for them to sustain growth over time, as opposed to seeing their growth fizzle, as many fast-growing economies have done. We also look at how countries manage the environmental and human consequences of industrialization. We look at how great powers succeed or fail at developing and deploying effective military power. Finally we examine the causes and consequences of decline—why great powers fall, and whether the process of decline is expected to be associated with international instability.

Distributive: Dist:INT or SOC

**GOVT 50.17 - Weapons of Mass Destruction**

Instructor: Miller

This course examines the role of weapons of mass destruction (WMD) in international politics: specifically, nuclear, chemical, and biological weapons. Over the course of the quarter, students will explore a range of political questions related to these technologies. Why do states want WMD technology, and have these motivations changed over time? What are the effects of WMD technology on international politics? Do WMD deter conflict or make it more dangerous and frequent? What are the mechanisms for preventing the spread of WMD technology and how effective have they been? How real is the threat of WMD terrorism? In addressing these questions, the course will cover a wide range of historical cases and time periods, encompassing the United States, Europe, the Middle East, Asia, Africa, and examining the use of WMD in World War I, World War II, and more recent conflicts such as the Syrian Civil War.

Distributive: Dist:SOC

**GOVT 50.18 - Foreign Policies of Middle Eastern States**

Instructor: Fishere

This course analyzes the foreign policies of Middle Eastern states. It begins with an examination of the frameworks of foreign policy analysis. Then, it analyzes the foreign policy making of eleven different states; Algeria, Egypt, Iran, Israel, Jordan, Morocco, Qatar, Saudi Arabia, (what used to be known as) Syria, Turkey, United Arab Emirates. In each of these cases, we look into the role of various actors involved in formulating foreign policy as well as the constraints and opportunities they face – internally and externally. We will examine how the interaction between these various actors, the definition they give to their constraining/enabling structures, contribute to defining the foreign policy behavior of the state in reference. We will also see how the combination of these foreign policies, especially their regional dimension, led the Middle East into the chaos it suffers from now.

Given the rapid pace of change in the Middle East, we will combine recent texts and older ones, in order to familiarize ourselves with both the “baseline” of foreign policymaking in the Middle East and its most recent manifestations. We will also read shorter updates, mainly from media sources, as we progress in the course.

Distributive: Dist:INT

**GOVT 50.19 - Development Under Fire**

Instructor: Lyall

This course examines the recent emergence of foreign assistance as a tool of counterinsurgency and post-conflict reconciliation in countries as diverse as Afghanistan, Iraq, Colombia, Liberia, Pakistan, and the Philippines. The course has three broad purposes: (1) to introduce students to leading research on the motives and dynamics of violence in civil war settings, with a focus especially on the post-1945 era; (2) to develop an understanding of the multiple ways in which different actors - including militaries, rebel organizations (i.e. the Taliban), state agencies (i.e. USAID), non-governmental organizations (i.e. Doctors Without Borders), and international organizations such as the World Bank - have used aid in these environments, and how aid and violence intersect; and (3) to provide students with a grasp of the different approaches that have been used to evaluate aid in these settings, including randomized control trials, quasi-experiments, interviews and focus groups, and survey experiments.

Note that the course does not presume any background in either political science or economics, though introductory courses (especially in microeconomics and development studies) will prove useful. Familiarity with quantitative social science (i.e. regression analysis) will also be helpful but is not essential.

Distributive: Dist:INT or SOC; WCult:NW

**GOVT 52 - Russian Foreign Policy**

Instructor: Wohlforth

The objective of this course is to help you become a more sophisticated analyst of foreign policy in general and Russian foreign policy in particular. The course is part of the international relations (IR) concentration in the Government major and gives students the opportunity to explore IR through the lens of another great power’s interaction with the international system. A background in IR (esp. Gov 5) will enhance your intellectual experience in this course. The larger aim of the course is to help sharpen your analytical skills, something you may carry with you long after you graduate.

Prerequisite: GOVT 4 or GOVT 5; GOVT 42 is recommended. Open only to sophomores, juniors, and seniors.
GOVT 53 - International Security
Instructor: Miller

This course analyzes pressing international security problems utilizing theories of international politics. The course will examine a wide range of contemporary security threats, as well as how states and other actors seek to respond to or manage such threats. The course draws on empirical cases from around the globe and engages both theoretical and policy issues. Issues covered include the causes of war and peace, nuclear weapons proliferation, terrorism and insurgencies, alliances and collective security, and humanitarian intervention.

Prerequisite: GOVT 5 or permission of instructor.

GOVT 54 - United States Foreign Policy
Instructor: Mastanduno

An inquiry into relationships between the social structure and ideological tradition of the United States and its conduct in world affairs. Attention is given to the substance of American foreign and military policy; to the roles of the White House, State Department, CIA, the military, Congress, private elites, and mass opinion; and to foreign policy impacts on domestic life.

Prerequisite: GOVT 5 or permission of the instructor.

GOVT 57 - International Relations of East Asia
Instructor: Lind

East Asian international relations have an important impact on global stability and on the security of the United States. North Korea poses a growing nuclear threat and an ongoing risk of political instability. China’s rise is transforming the regional balance of power, and may challenge the post-World War II liberal order created by the United States and its partners. Territorial disputes threaten regional instability and dangerous escalation. This course has three goals: (1) to introduce students to salient issues in East Asian international politics; (2) to situate current events within a historical context, and (3) to provide students with analytic tools to analyze contemporary issues. We begin with an examination of the regional balance of power: what is power, who has it, and how is the balance of power shifting? We then focus on the military relations between key countries, assessing the conventional and nuclear balance of power, and the prospects for stable deterrence. We next move to the realm of ideas, where we explore how history and national identities affect the security strategies of states, and how they affect regional relations. We will then consider the prospects for a “liberal peace” in the region, made possible through increasing economic interdependence and through democratization. The course incorporates a crisis simulation in which students are tasked with representing a country in a significant multinational regional dispute.

Prerequisite: GOVT 5 or permission of instructor.

GOVT 58 - International Political Economy
Instructor: Mastanduno

The political aspects of international and transnational economic relations will be examined. Topics will include economic imperialism, politico-economic dependence and inter-dependence, economic instruments of statecraft, the role of economic factors in foreign policy making, economic causes of international conflict, economic determinants of national power, the politics of international economic organizations, and the role of multi-national corporations in world politics.

GOVT 59 - Foreign Policy and Decision Making
Instructor: Friedman

This course examines conceptual, political, psychological, and organizational challenges in foreign policy decision making. Throughout class discussions and course assignments, we will evaluate how well practitioners grapple with these challenges. Case studies include escalation in Vietnam, assessments of Iraq’s weapons of mass destruction programs, and the raid on Osama bin Laden’s compound. As we analyze and critique foreign policy, we seek to develop broader intuitions for making better decisions in everyday contexts.

The course spans three units. Unit 1 surveys conceptual lenses in the study of decision making from the standpoints of cost-benefit analysis, organizational behavior, domestic politics, culture, and psychology. Unit 2 surveys tools for foreign policy analysis, including intelligence, threat perception, and political forecasting. Unit 3 examines how that analysis is used and misused when making and executing policy decisions.

GOVT 60.03 - Wittgenstein and Political Thought
Instructor: Turner

This course explores the influence of the philosophy of Ludwig Wittgenstein on contemporary political thought. The first part of the course focuses on Wittgenstein’s early work, in particular, his understanding of language. The main part of the course is devoted to discussing Wittgenstein’s most famous work, _Philosophical Investigations_. The third part of the course explores how
some of Wittgenstein’s central concepts – language games, family resemblances and rule following – have been used in contemporary political thought.

Distributive: Dist:TMV; WCult:W

**GOVT 60.04 - Ethics and Public Policy**

Instructor: Rose

This course examines the nature and validity of arguments about vexing moral issues in public policy. Students examine a number of basic moral controversies in public life, focusing on different frameworks for thinking about justice and the ends of politics. The primary aim of the course is to provide each student with an opportunity to develop his/her ability to think in sophisticated ways about morally difficult policy issues. Amount the questions students address will be the following: Are policies that permit torture justifiable under any circumstances? Do people have basic moral claims to unequal economic holdings and rewards, or should economic distribution be patterned for the sake of social justice? Should people be permitted to move freely between countries? Is abortion wrong, in theory or in practice, and in what ways should it be restricted?

Cross-Listed as: PBPL 42

Distributive: Dist:TMV; WCult:W

**GOVT 60.05 - Indigenous Nationalism: Native Rights and Sovereignty**

Instructor: Turner

This course focuses on the legal and political relationship between the indigenous peoples of Canada, the United States, Australia, and New Zealand and their respective colonial governments. Students will examine contemporary indigenous demands for self-government, especially territorial claims, within the context of the legislative and political practices of their colonial governments. The course will begin with an examination of the notion of Aboriginal self-government in Canada and develop it in light of the policy recommendations found in the recent report of the Royal Commission on Aboriginal Peoples (1996). Using the Canadian experience as a benchmark, students will then compare these developments to indigenous peoples’ experiences in the United States, Australia and New Zealand. An important theme of the course will be to develop an international approach to the issue of indigenous rights and to explore how colonial governments are responding to indigenous demands for justice. Not open to first-year students without permission of instructor.

Distributive: Dist:INT or SOC; WCult:NW

**GOVT 60.09 - Indians and European Political Thought: 1492-1832**

Instructor: Turner

This course surveys European political theory in early colonial America. The course is broadly divided into three parts: first, the so-called "Discovery of the New World" in 1492; second, the 17th and 18th century social contract theories of Thomas Hobbes, John Locke, and Jean-Jacques Rousseau; and finally, the early 19th century Marshall cases that laid the foundation for American Indian law in the United States.

Cross-Listed as: NAS 048

Distributive: Dist:TMV

**GOVT 60.14 - Libertarianism**

Instructor: Sorens

Libertarianism endorses strong individual rights against coercion, and as a result, strictly limited government, free exchange in markets, and social toleration. For this class, libertarianism is not so much a political program as a unique approach to thinking about people's moral rights and the purpose and legitimacy of the state. We will engage both defenses and criticisms of libertarianism, as well as different variants of the philosophy, using tools from philosophy, economics, and political science.

Distributive: Dist:TMV

**GOVT 60.17 - Arab Political Thought**

Instructor: Fishere

This is a gateway course to Arab political thought. It will introduce students to the main political and intellectual debates in the modern Arab world since its nascent beginnings during the first half of the 19th century to the ideologies that animated the Arab Spring and its aftermath, including:

- Early accounts of political modernity
- Early Islamic revivalism
- Liberal thought
- Nationalism and Pan-Arabism
- Arab socialism, Marxism and the New Left
- Anti-Colonialism and Occidentalism
- Dreams of Domination
- Citizenship, democracy and human rights
- New directions in Arab thought: Liberalism, nationalism and Islamism

We will cover the basic contours and intellectual debates around these issues, analyzing the main texts tracing their development. The aim of this course is not only to familiarize students with the basic political features of the Middle East but also to equip students with the tools necessary to pursue future academic and analytical work on the politics of the region.
GOVT 60.18 - Daniel Webster and the Dartmouth College Case
Instructor: Bonner, Muirhead, Pease
Two hundred years ago, in 1819, Daniel Webster argued a case in front of the Supreme Court defending his alma mater, Dartmouth College, against the predations of the State of New Hampshire. The Court found in favor of Dartmouth, which preserved the College as a private entity. Perhaps more importantly, it also laid the legal foundation for the modern economy, where corporate firms are to some extent free of state control. This course aims for a comprehensive understanding of the Dartmouth College Case and Daniel Webster by integrating the perspectives of American studies, history, political theory, and law.
Cross-Listed as: COCO 024 ENGL 52.11 HIST 90.06
Distributive: Dist:TMV

GOVT 60.19 - Black Political Thought
Instructor: Threadcraft
This course will explore the black political thought from the antebellum period through the middle of the twentieth century. The course will include the political writings of major black political thinkers such as Frederick Douglass, Harriet Jacobs, Booker T. Washington, W. E. B. Du Bois, Ida B Wells, Martin Luther King, Jr. and Ella Baker as well as secondary source material on these thinkers.
Cross-Listed as: AAAS 21.75
Distributive: Dist:TMV

GOVT 60.20 - Introduction to Law, Social Justice, and Trial Practice
Instructor: Fredrickson
This course will provide a broad view of the legal system, and an overview of a civil trial. The students will have the opportunity to experience trying cases in a safe environment.

GOVT 60.22 - Law, Power & Society
Instructor: Greenleaf
What is law? In this course, we will explore this seemingly simple question, and look at how scholars from anthropology and other disciplines have addressed it. We will look at law as a means of ordering societies, as an exercise of power, and as a cultural phenomenon that helps us better understand the world around us. We will survey foundational and philosophical thought, delve into law’s role in the United States, and study its manifestations in colonial and postcolonial societies, such as South Africa and Brazil. We will explore the law as both a means of social control and of social change.
Cross-Listed as: ANTH 50.25
Distributive: Dist:SOC

GOVT 60.23 - Law and Empire
How did law justify European imperialism? What did law look like in different imperial contexts? How do the histories of empire and imperialism help us understand the history of law? Looking across regions and contexts, from early modern Iberian empires, to early colonial North America, to Africa and Asia, this course examines the relationship between law, empire, expansion, and colonialism from the 17th to 21st centuries. With a few exceptions, our readings and discussions will follow chronological order, veering off course occasionally to look at issues comparatively. Throughout, we'll be working to uncover how imperial approaches to law changed over time and how laws and legal institutions with imperial origins have shaped expectations and experiences into the present.
Cross-Listed as: HIST 90.11
Distributive: Dist:INT or SOC; WCult:NW

GOVT 61 - Jurisprudence
Instructor: Murphy
Jurisprudence is the theory of law—not of a particular body of laws but of law in general. In this course, we explore a variety of approaches to some of the fundamental questions in jurisprudence: Are laws rooted in human nature, in social customs, or in the will of the sovereign authority? How are laws made, interpreted, and enforced? Can morality be legislated? Readings and lectures will draw on both philosophical arguments and legal case-studies to explore these and other questions.
Distributive: TMV

GOVT 63 - Foundations of Political Thought: Athens and Jerusalem
Instructor: Murphy
Modern political philosophy has two ancient foundations: Greek philosophy (Athens) and the Bible (Jerusalem). Each of these two cities offers radically different answers to the perennial questions about politics: what is justice and who shall rule? After contrasting these two ancient perspectives, we shall compare medieval attempts to synthesize Greek philosophy and biblical faith by Augustine and Thomas Aquinas. What do we owe to God and what to Caesar?
Prerequisite: GOVT 6 or knowledge of Plato's "Republic" highly recommended.
Distributive: Dist:TMV; WCult:W
GOVT 64.01 - Liberalism and Its Critics
Instructor: Swaine
Liberal political theory is renowned for its emphasis on rights, freedoms, and limited government; but critics of liberalism hold that the liberal legacy in free societies is one of misguided energies and broken promises. Students in this course chart the development of liberal thought from the Seventeenth Century to the present, with a view to considering the central values and commitments liberals may share, and examining important contemporary work in liberal theory. The course integrates weighty challenges to the moral and political viability of liberalism, from communitarian, conservative, libertarian, and postmodern critics. GOVT 6 recommended.
Distributive: TMV

GOVT 65 - American Political Thought
Instructor: Muirhead
The course focuses on the period from the Revolution to the Civil War. Topics include toleration, constitutionalism, rights, individualism, and slavery. Readings are drawn mainly from primary sources, including Jefferson, Madison, Adams, Hamilton, Jackson, Calhoun, Taylor, Anthony, Thoreau, and Lincoln.
Distributive: Dist:TMV; WCult:W

GOVT 66.02 - Constitutional Law, Development, and Theory
Instructor: Bedi
This course covers some of the main themes of the American Constitution with a particular emphasis on constitutional history, structure, interpretation, development and theory. Areas covered include: federalism, separation of powers, judicial review, slavery and Reconstruction. Open to sophomores, juniors, and seniors.
Distributive: Dist:TMV; WCult:W

GOVT 67 - Civil Liberties Legal and Normative Approaches
Instructor: Bedi
This course examines the normative and constitutional (textual) bases for protecting certain civil liberties or rights in the United States. The aim is not only to learn the constitutional language of civil liberties but also to think critically about it. Areas covered may include: property, race, sex, abortion, religious and cultural rights, gun rights, sexual freedom and "alternative" marriage, and animal rights.
Distributive: WCult:W

GOVT 68 - The Future of Capitalism
Instructor: Irwin, Muirhead, Wheelan
The first wave of capitalism was industrial: it took people off the farm and brought them to the city and the factory. The second wave, post-industrial capitalism, centered productive activities in services rather then manufacturing. Capitalism 3.0 may transcend the need for human labor more than ever imagined: machines and robots will do the work, especially the difficult, dirty, and monotonous work that has given "work" a bad name. What will capitalism of the future need to be if it is to be a prosperous and fair economic system. Course integrates economics, public policy, and political philosophy.
Distributive: Dist:TMV

GOVT 69 - Federal Indian Law
Instructor: Duthu
This course will focus on the constitutional, statutory and jurisprudential rules of law that make up the field of Federal Indian Law. Attention will be given to the historical framework from which the rules were derived. After tracing the development of the underlying legal doctrines that are prominent today, the course will turn to a consideration of subject-specified areas of Indian law, including hunting and fishing rights, water rights, and preservation of religious and cultural rights.
Cross-Listed as: NAS 50
Distributive: Dist:SOC; WCult:NW

Advanced Courses
GOVT 81.10 - The Rise of China
Instructor: Lind
This seminar explores the growth of Chinese wealth and power, and implications of that growth for regional and international politics. We begin by studying historical periods of Chinese strength and decline, and by studying China’s past relations with the United States and its neighbors. We examine China’s transition from a position of weakness into one of growing wealth and power, and how this may affect its relations with the world’s most powerful country, the United States. Are the United States and China doomed for superpower confrontation, or can China’s rise be accommodated? Next, we explore rising China’s relations and disputes with its neighbors. This course has two primary goals: (1) to familiarize students with the international strategic issues that are salient to China’s rise (in East Asia, and in U.S.-China relations); and (2) to provide students with analytic tools (theories and military analysis) useful to the study of East Asian international security relations.
Distributive: Dist:INT or SOC; WCult:NW
GOVT 81.16 - The Rise of Populism in Europe
Instructor: Ferwerda

Populist parties have emerged as a significant force in European politics. Across western and central Europe, anti-immigrant parties have entered governing coalitions and accelerated the decline of mainstream parties. In southern Europe, radical left-wing parties have increasingly challenged the legitimacy of the European Union. This seminar will examine the political, economic, and cultural factors driving the unprecedented success of populist parties. In doing so, we will grapple with a range of significant challenges facing liberal democracies, ranging from the consequences of immigration and diversity to economic stagnation and representational deficits.

Distributive: Dist:INT or SOC; WCult:W

Instructor: Baldez

U.N. human rights treaties enjoy both strong support and strong opposition in the United States. The U.S. is the only country in the world that has not ratified the Convention on the Rights of the Child and is one of six countries that have not ratified the U.N. Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW)—putting America in the company of Iran, Palau, Somalia, Sudan and Tonga (as well as the Holy See and the “freely-associated state” of Niue). Nonetheless, the U.S. has ratified three of nine U.N. human rights treaties—the International Covenant on Civil and Political Rights (ICCPR), the Convention against Torture (CAT) and the International Convention on the Elimination of All Forms of Racial Discrimination (CERD)—as well as the Genocide Convention. What explains this variation, and what difference does ratification make? The course will examine broader questions about American politics by looking through the lens of efforts to ratify these treaties and interact with the UN. We will examine the history of human rights within the UN, the development of the treaties, and US efforts to ratify them. We will explore the impact of ratification and the role of human rights in American foreign policy. Our aim will be to produce research that informs public debate and contributes to the scholarly literature.

Distributive: Dist:SOC; WCult:W

GOVT 81.26 - Vladimir Putin: Russia in the 21st Century
Instructor: Short

The question "Who is Mr Putin?" still has no agreed answer. Nor is there any consensus over whether Putin and his circle have hijacked the democracy which the West hoped would flourish in Russia, or whether the system he has installed will continue for the foreseeable future regardless of who holds power. This course will focus on Putin as an individual, his background, his highly unusual ascent to power, his system of rule, and the continuities and changes in policy that have occurred in the almost 20 years that he has been in power. We will look at why and how this virtual unknown was catapulted into the leadership and how he coped when he got there.

Distributive: Dist:INT

GOVT 83.02 - Politics and Markets
Instructor: Fowler

Someone once said, There is a place for the market, and the market must be kept in its place. In this course, we explore the policy debates in the U.S. over the proper role of government in promoting market efficiency and protecting citizens from the adverse consequences of market competition. We begin with an effort to define the scope of the private and public sectors. We then consider an array of policy instruments to correct market failures and redistribute income. Finally, we examine the use of market-oriented approaches to policy problems, such as cost-benefit analysis, vouchers, and pollution rights.

Cross-Listed as: PBPL 81.09
Distributive: Dist:SOC; WCult:W

GOVT 83.04 - Myths and Realities in Public Policy Solutions
Instructor: Bafumi

This course will investigate major areas of public policy including health care, energy, banking, social security and education. Through readings and lively discussion, students will grow in their understanding of these deeply important issues. The aim of the course will be to dispel public policy myths that benefit candidates or their parties in the political arena but do not have the capacity to solve real world problems. We will approach public policy as academics rather than political practitioners. While we will move from issue to issue quickly, students will have the opportunity to focus on one of those issues for in-depth study in a final paper.

Distributive: Dist:SOC; WCult:W

GOVT 83.05 - The Media and Advertising in American Politics
Instructor: D. Brooks

This seminar explores the relationships between campaign advertising, the mass media, and political deliberation. We will examine the advertising strategies politicians use to win campaigns, the strategies they use to keep their seats of power once in office, how these efforts are evaluated by the media, and how the entire communication process affects the role of the public in democracy. A course-length political advertising and media simulation in which
students will work to successfully communicate campaign messages serves to provide students with a hands-on learning opportunity and a unique culminating experience. Note that there are no prerequisites for this course.

Distributive: Dist: SOC; WCult: W

GOVT 83.06 - Political Communication
Instructor: Westwood
The seminar provides an overview of research in political communication with special reference to work on the impact of the mass media on public opinion and voting behavior.

Distributive: Dist:SOC; WCult:W

GOVT 83.08 - Localism in America: Ethics, Politics, and Economics
Instructor: Latimer
Amid the rise of globalism, we are increasingly asked to focus on what is near: “eat local,” “drink local,” or “buy local.” This course examines the political and ethical roots of recent enthusiasm for “the local.” Americans fiercely defend the prerogatives of “local control, and some see localism at the heart of liberty. Others see local control as a mask for prejudices. What is the claim of the local, and can we decide which is better—centralism or localism— independent of the political context?

GOVT 83.09 - Misperceptions in Politics: When Do They Matter and Why?
Instructor: Flynn
Many citizens hold misperceptions about political facts. When and why do they matter? This course examines the causes and consequences of misperceptions, strategies for correcting misperceptions, and the tools scholars use to study misperceptions scientifically. These tools include surveys, experiments, and a widely used statistical computing program (R). Students will work together (with the instructor) to design, execute, and report an original experimental study of misperceptions.

Cross-Listed as: QSS 30.08
Distributive: Dist:QDS

GOVT 83.19 - American Political Behavior
Instructor: Lacy
Do most Americans have real opinions on political issues, or are their opinions transient and heavily influenced by the media and political elites? What are Americans' opinions on important issues? Do the media determine the issues people care about, or does public concern about an issue drive media coverage? How can we measure people's attitudes, preferences, and opinions? How and why are Democrats, Republicans, and Independents different? Why do some people vote while others do not? Do people in "red states" and "blue states" differ in their political attitudes? If so, why? We will explore these questions and others from a social science perspective. We will read answers to these questions from journalists, political practitioners, and academic researchers, formulate our own hypotheses, and test these hypotheses using data that are available or that we will uncover. Completion of Government 10 or its equivalent is highly recommended before taking this course.

Distributive: Dist: SOC; WCult: W

GOVT 83.21 - Experiments in Politics
Instructor: Nyhan
This class is a lab-style seminar in which we will design, field, and analyze an experimental study. Our goal is to publish a scholarly article about our findings in a peer-reviewed journal of political science - an ambitious project that will require a substantial commitment from each student. Flexibility will also be essential since the course will evolve during the semester based on the needs of the project.

The subject of the experimental study varies term to term and will be determined prior to the beginning of classes. Although the experimental study will vary each term, students may not repeat this course for credit.

Cross-Listed as: QSS 30.03
Distributive: Dist:QDS

GOVT 83.22 - Political Representation in the U.S.
Instructor: Costa
Representation is central to most democratic theories of government, but does the U.S. government represent its citizens? This course introduces students to both classic and contemporary research on this question with a particular emphasis on understanding what constitutes "good" representation. During the first section of the course, we discuss theories of representation and examine the validity of those theories in the context of the political aptitude of citizens and structural dilemmas for representation. The second section of the course will focus on different empirical approaches to studying representation. The third section focuses on the relationship between inequality (along lines of race/ethnicity, gender, and class) and representation. Throughout the course, we address a number of related questions on democratic theory, the relationship between public opinion and legislative behavior, and how elected officials learn about public opinion.

Distributive: Dist:SOC

GOVT 83.24 - Inequality and American Democracy
Instructor: Nachlis
Inequality – economic, political, and social – is among the most pressing and contentious issues of our time. What forms of inequality should we care about? How much is too much, or too little? What are inequality’s causes and consequences, which dimensions should be addressed, and how? We examine inequalities of income and wealth, political representation, education, incarceration, health, race, gender, and the future of work, ranging from philosophical and historical foundations to contemporary politics and policy.

Cross-Listed as: PBPL 84.04
Distributive: Dist:SOC; WCult:W

GOVT 83.25 - Hating the other side: polarization in American Politics
Instructor: Westwood

Modern American politics is defined by strong affection for one’s own party and a deep hatred of the opposing party. This seminar explores the nature and evolution of polarization in American politics. We will critically examine how an ideological divide between parties have evolved into a divide defined by hatred and avoidance. Throughout we will compare modern polarization to other periods of heightened antipathy and consider just how much partisanship has developed into tribal conflict. As part of the course, we will consider how partisan animus manifests in vast aspects of American life—personal relationships, the workplace, and professional environments. Ultimately, we will grapple with evidence that suggests partisan bias has grown to replace race as the largest divide in American society.

Distributive: Dist:SOC; WCult:W

GOVT 83.26 - Public Policy and Pandemics
Instructor: Bafumi

This course explores political factors that influence the development of public policies as well as possible attitudinal and behavioral policy feedback effects on the population after their implementation. Public opinion will be central to the course with students encouraged to analyze survey data and polls. In most years, the class will have a topical issue focus (e.g., health care, climate change, retirement, immigration) depending upon world events and trends. Although the topical issue focus might vary each term, students may not repeat this course for credit.

Cross-Listed as: PBPL 83.02
Distributive: WCult:W

GOVT 83.27 - Public Policy and Politics
Instructor: Barabas

GOVT 83.28 - Persuasion and the Policy Process
Instructor: Jerit

This class examines how people form policy preferences and the process by which those preferences do—or do not—get translated into public policies in the United States. The course will examine three aspects of this process: elite rhetorical strategy, the media routines that generate coverage of policy debates, and mass opinion. We will assess the way political elites, the media mass, and ordinary people interact to create policies that can be either intelligent or pathological.

Cross-Listed as: PBPL 83.01
Distributive: Dist:SOC

GOVT 84.01 - Dilemmas of Development: India, China, and Middle East
Instructor: Vandewalle

China and India have witnessed extraordinary economic growth and development during the last three decades, and now rank as two of the world’s fastest growing economies. In contrast, countries in the Middle East have economically often stagnated, seemingly incapable to implement economic reforms that could lead to sustained growth and development. What prompted these different outcomes? This seminar investigates the multiple strategies and elements behind the economic success of China and India, and those that explain the lack of economic performance in the Middle East.

Distributive: Dist:INT or SOC; WCult:NW

GOVT 84.06 - Identity and Power in the Americas
Instructor: Baldez

This course examines how different forms of collective identity—including class, race, ethnicity, indigeneity and gender—have shaped Latin American and Latino politics in the 20th and 21st centuries. We will focus on a range of cases in Latin America and the US to address the following questions: In what ways does the state create and sustain certain categories of identity as the basis for political
inclusion and exclusion? What explains changes in the political salience of certain categories of collective identity? Why do some identities become politically salient and others do not? How have forms of political representation changed over the past century? How does state policy affect the ability of groups to mobilize and press for demands? How do organized groups affect state policy? What are the possibilities and limitations of identity-based mobilization?

Cross-Listed as: AAAS 90.01; LACS 80.02
Distributive: Dist:INT; WCult:W

GOVT 84.13 - Improving Democracy: Institutional Innovations and Experiments in Developing Nations
Instructor: Chauchard

Representative Democracy is now practiced on most continents and in a wide variety of settings. Yet important challenges limit democratic processes in “new” or “developing” Democracies in Asia, Africa and beyond: elite influence or capture, lack of inclusiveness, citizen apathy, weak accountability, the (often poor) quality of representatives, lack of transparency etc..... In this class, we will assess these limitations and concretely review the efforts and innovations pushed by international institutions and international donors to attenuate these problems. That is, we will review strategies implemented to decentralize, to increase participatory processes, to increase citizen control of politicians, and to limit the influence of elites. In doing so, we will rely on existing studies and experiments in order to evaluate the extent to which these strategies have led to concrete improvements in the lives of the citizens of these countries, the objective being to expose students to the institutional engineering strategies designed by policy practitioners in international institutions and in the NGO sector.

GOVT 84.14 - Foreign Aid
Instructor: Carey

Foreign assistance programs are politically contentious. Advocates defend foreign aid as ethically imperative, effective, and as an essential foreign policy tool. Detractors dismiss foreign aid as wasteful at best, and possibly counterproductive, impoverishing recipient countries, corrupting their governments, and fostering violence. This course examines the cases for and against aid programs and weighs the evidence for their effectiveness. We consider three main forms of government-sponsored assistance — humanitarian aid, development aid, and democracy promotion. Students will assess the arguments and evidence from existing scholarship on aid, and will pursue independent research on foreign aid projects in consultation with Professor Carey.

Distributive: Dist:INT

GOVT 84.26 - Ethnic Conflict
Instructor: Horowitz

Countries emerging from civil war face a unique set of challenges in creating the conditions for lasting peace and dealing with the trauma and devastation left by war. This course will be structured around several key themes related to post-conflict peacebuilding: the demobilization and reintegration of combatants, designing government institutions for conflict-prone settings, the role of transitional justice, and efforts to address the trauma of violence at the individual level. Throughout the course we will examine the role of international actors – the UN, Western Governments, the International Criminal Court – in post-conflict settings. The course will draw on a rich set of case material from Rwanda, Kenya, Liberia, Yugoslavia, Cambodia, and other relevant countries.

Distributive: Dist:INT or SOC; WCult:NW

GOVT 84.34 - U.S. Policy in Africa and the Great Challenges Africa Faces in the Future
Instructor: Carson

This course will provide an in-depth and comprehensive understanding of U.S. foreign policy toward Africa and how it has evolved over the past several decades. The course will also examine emerging political, economic and social trends in Africa that will impact the continent's future. The class will draw on scholarly texts, relating them as appropriate to current events and significant developments across Africa. At the end of the seminar, students should have a solid understanding of the most important issues and conflicts in Africa today, the emerging issues that could threaten Africa's future political stability and economic progress and the key drivers and components of U.S. foreign policy toward Africa. Students should also have a deeper understanding of the political, economic, and strategic significance of Africa's largest and most important states, as well as the significant drivers behind current Chinese, Turkish, Brazilian and Indian policies in Africa.

GOVT 84.35 - U.S. – Latin America Relations: The Dynamic of Foreign Policy Formulation
Instructor: DeShazo

This course examines how different forms of collective identity—including class, race, ethnicity, indigeneity and gender—have shaped Latin American and Latino politics in the 20th and 21st centuries. We will focus on a range of cases in Latin America and the U.S. to address the following questions: In what ways does the state create and sustain certain categories of identity as the basis for political inclusion and exclusion? What explains changes in the political salience of certain categories of collective identity? Why do some identities become politically salient and others do not? How have forms of political
representation changed over the past century? How does state policy affect the ability of groups to mobilize and press for demands? How do organized groups affect state policy? What are the possibilities and limitations of identity-based mobilization?

Cross-Listed as: LACS 50.11
Distributive: Dist:INT; WCult:W

**GOVT 84.36 - The Future of the International Order**
Instructor: Sullivan

This course will consider the future of the modern international order — the system of institutions, partnerships, rules, and norms that emerged at the end of the Second World War and evolved at the end of the Cold War. Scholars and practitioners debate how much of an “order” it actually is or ever was, how “liberal” it is or ever was, and how “global” it is or ever was. But there is widespread consensus that it has reached an inflection point — that the system will look different twenty years from now than it does today. This course will examine the debates over what that future will and should look like, and in particular what steps need to be taken to improve the international order’s capacity with respect to its three core functions: (1) to manage disputes and reduce violent conflict, (2) to mobilize action to address shared challenges like climate change, and (3) to establish rules of the road that govern interstate and transnational conduct in key areas, from trade to nuclear proliferation. To this end, we will look at changes in the distribution of power between states (including the rise of China), the diffusion of power beyond states (including the role of technology), and the crisis of governance within states (including the rise of populism and nationalism). By the end of the semester, students will develop their own perspectives on where they think the international order is headed, where it should be headed, as well as implications for U.S. foreign policy.

Distributive: Dist:INT or SOC

**GOVT 84.37 - Democracy and Diversity**
Instructor: Mounk

Around the world, from Italy to Brazil, and from Hungary to the United States, populist candidates and governments are fundamentally changing the political landscape. In this course, we will explore the nature of populism; investigate whether populism poses an existential threat to liberal democracy; explore the causes of the populist rise; investigate the ways in which populism is a response to demographic change; and discuss what strategies might allow non-populist political actors to push back.

Distributive: Dist:INT or SOC; WCult:W

**GOVT 84.38 - Trading Places: How Chile Passed Argentina on the Road to Development**
Instructor: DeShazo

This course will investigate and analyze the factors that led to and inhibited development in Chile and Argentina. It will trace key economic, political and social variables in both countries from the export-led growth period of the Second Industrial Revolution to the present time in an effort to draw conclusions regarding why, when, and how Chile was able to advance at a faster pace than Argentina.

Distributive: Dist:INT or SOC; WCult:W

**GOVT 84.39 - Comparative Ethnic Politics**
Instructor: Aha

In this seminar we will explore critical questions concerning the impact of ethnic diversity on politics across a wide range of societies. First, we will discuss the construction of ethnic identities, and how these identities are mobilized politically. Second, we will examine the impact of ethnic mobilization on democratic politics. Third, we will look at whether and when mobilized ethnic identities contribute to an increased likelihood of ethnic conflict. Fourth, we will turn to an in-depth case study of Yugoslavia to illustrate theories discussed throughout the semester. The goals of this course are to give you a deep understanding of both major and new debates in comparative ethnic politics, as well as to expose you to a variety of different cases and methodologies. You will get extensive practice in analyzing academic sources, and articulating your own arguments both in class and through your writing. Additionally, you will be able to build upon your own interests through a research project.

Distributive: Dist:INT or SOC; WCult:CI

**GOVT 84.40 - Democratic Erosion**
Instructor: Carey, Muirhead

A theoretical, empirical, and historical investigation into the symptoms, causes, and consequences of the erosion of democratic states and the rise of illiberal modes of governance.

Distributive: Dist:SOC; WCult:W
**GOVT 85.01 - Diplomacy**
Instructor: Sullivan

This course explores diplomacy, the essential instrument of foreign policy. We will begin with elemental questions: What is diplomacy? Who uses it and how? The course will examine both the daily work of diplomats -- how they obtain and use information on the politics, economics and society of their host nations -- and the way in which negotiations are conducted at the highest levels. The course will take up a number of case studies (possibilities include Bosnia, the Gulf War, Kirkuk, North Korea, and Iran) in order to answer the following questions: What makes for successful negotiations? Is the threat of force essential to effective diplomacy? When is multilateral diplomacy more effective than unilateral action? What is the role of the United Nations? The class will engage in debates and other in-class exercises that utilize critical diplomatic skills.

Distributive: Dist: INT or SOC

**GOVT 85.02 - Leadership and Grand Strategy**
Instructor: Wohlforth

Is strategic leadership possible in international affairs? If so, how is it achieved? The objectives of this course are to introduce you the most influential theoretical approaches to the study of strategy in political science and to apply and evaluate these approaches in a series of historical and contemporary case studies of leadership and grand strategy. These immediate objectives serve a larger purpose: to make you a better strategist and more sophisticated analyst of strategic decision-making. Students will be required to craft and defend alternative grand strategies for real leaders in selected cases, including World War I, the transition from apartheid in South Africa, and the war for Kosovo. The empirical focus of the course is on states and their problems, but its basic precepts are applicable to other domains as well. Prerequisite: Government 5.

Distributive: Dist: INT or SOC

**GOVT 85.08 - US Security Policy in the 21st Century**
Instructor: S. Brooks

For the past twenty years, the United States has occupied a unique role in the system as the world's only superpower. Yet many analysts argue that the United States will soon have to adjust to a new global order in which it has a less central role. In light of this argument, we will examine a range of questions and debates pertaining to the current and future course of American security policy.

Distributive: Dist: INT or SOC

**GOVT 85.10 - State Making and State Breaking**
Instructor: Sorens

We study the causes of state formation, breakup, and collapse. Why did the modern territorial state triumph over its competitors over most of the world, such as feudal domains, condominiums, tribes, confederations, and city-states? What explains the rise in the territorial scale of the state between the 10th and 20th centuries, as well as its organizational deepening over that period? How serious are today’s challenges to the territorial state, like separatist movements, supranational federations, de facto states, and functional overlapping competing jurisdictions?

Distributive: Dist: INT

**GOVT 85.12 - Military Statecraft in International Relations**
Instructor: Press

Finding answers for many complex foreign policy questions requires weighing a set of political goals against an estimate of the potential military costs and risks. The purpose of this course is to familiarize students with the missions and capabilities of military forces, and to teach them how to estimate the likely costs, risks, and outcomes of military operations. This course will use theoretical works and historical cases to familiarize students with some of the principles of air, ground, and naval operations. Students will use the tools which they learn in class to conduct a detailed military analysis that bears on an important current foreign policy question. No prior knowledge of military forces is needed for this class. Prerequisite: Government 5 or permission of the instructor. The instructor encourages seniors, juniors, as well as sophomores with strong writing and research skills, to enroll in this seminar.

Cross-Listed as: PBPL 82.01

Distributive: Dist: INT or SOC

**GOVT 85.15 - Economic Statecraft in International Relations**
Instructor: Mastanduno

This course examines the use of economic instruments – trade, investment, and financial sanctions or inducements – by states to achieve foreign policy and national security objectives. We will develop theoretical perspectives and examine classic and contemporary cases to examine whether economic sanctions and inducements are effective; the relationship between economic statecraft, diplomacy, and the use of force; the impact of globalization on economic statecraft; and how domestic politics enable or constrain economic statecraft. Cases will include NATO sanctions against Russia, Chinese economic diplomacy in the South China Sea, multilateral restrictions on Iran and
North Korea, and financial sanctions in the war on terrorism.

Distributive: Dist:INT

GOVT 85.16 - The Causes and Prevention of Genocide and Mass Killing
Instructor: Valentino
This course examines genocide and other kinds of mass killing in historical and theoretical perspective. The course will begin by examining the debate over the concept of genocide. Then the course reviews psychological, sociological, and political perspectives on causes of genocide and mass killing. Next, the course examines a number of historical episodes of genocide and mass killing including the Holocaust, the 1994 genocide in Rwanda, mass killings by communist states in China, the Soviet Union and Cambodia, and episodes involving the mass killing of civilian populations during war. Finally, the course addresses the question of what measures the United States and the international community should take to limit or prevent genocide and mass killing in the future. For example, should the international community use military force to prevent genocide if necessary? Will institutions like the international criminal court help to deter genocide and mass killing?

Distributive: Dist:INT or SOC

GOVT 85.29 - Lessons from America's Foreign Wars
Instructor: Friedman
This course surveys prominent studies of America’s foreign wars, including conflicts in Vietnam, Kosovo, Iraq, Afghanistan, and Libya. We will examine how political scientists have attempted to inform public debates about these wars, how those experiences have shaped broader conceptions of politics and armed conflict, and how many (or how few) lessons we can draw from these controversial experiences.

Distributive: Dist:INT or SOC

GOVT 85.36 - How National Security is Made
Instructor: Beers
For those interested in how national security policy gets made, the course focuses on the practical knowledge and skills necessary to create and manage policy to success. It will move from an initial policy proposal to government-wide acceptance, public announcement, Congressional approval and funding, and finally implementation. It will provide an understanding of the political, bureaucratic, and fiscal obstacles to national security policymaking as well as strategies and tactics to overcome those obstacles. Following the study of executive and legislative processes and the uses of intelligence and the media, it will look at a series of case studies on counter-terrorism, pandemics, immigration, drug trafficking, cybersecurity, and development and end with a crisis management exercise.

Distributive: Dist:INT or SOC

GOVT 85.37 - Resistance and Collaboration
Instructor: Miller
This course explores the dynamics of resistance and collaboration in the context of foreign military occupation. Over the course of the quarter, students will delve into a number of complex political questions: Why do some individuals and groups collaborate with foreign occupiers while others risk their lives by joining resistance movements? What explains why resistance is widespread in some historical cases and relatively weak in others? Why do some resistance movements succeed whereas others fail? How should we understand the dynamics of insurgency and counterinsurgency in countries under foreign occupation? Finally, what are the long-term consequences of resistance and collaboration, and how are these phenomena remembered in countries that once suffered under occupation? In interrogating these questions, the course will draw on a wide range of historical cases, including Nazi, Soviet, and Japanese occupations during World War II, post-war U.S. occupations of Germany and Japan, and recent American occupations of Afghanistan and Iraq.

Distributive: Dist:SOC

GOVT 85.38 - Gender and War
Instructor: Baldez
Historically, the connection between gender and war was considered to be so obvious that few thought to question it. Men make up the vast majority of political decision makers who prosecute wars, and men constitute the vast majority of soldiers who fight wars. In the last few decades, scholars have asked why this is the case and challenged assumptions about how conceptions of masculinity and femininity matter in global conflict. In this seminar, we will delve into some of the classic studies and most influential research on gender and war in political science in order to understand the ways in which conceptions of gender difference shape the causes and consequences of war.

Distributive: Dist:INT or SOC; WCult:W

GOVT 85.39 - Public Opinion and American Foreign Policy
Instructor: Powers
This course investigates public opinion about U.S. foreign policy. We examine prominent scholarly debates about whether foreign policy public opinion is rational, coherent, and a factor in policy outcomes. The course will be structured around several important questions, including: Does the American public have organized views about
foreign policy? How do ideology, partisanship, values, and facts shape foreign policy attitudes? To what extent do leaders and the media shape foreign policy public opinion? Does the public affect foreign policy decision-making, either directly or by influencing voting behavior?

Distributive: Dist:INT or SOC

**GOVT 85.40 - The Cold War**

Instructor: Miller

This course explores the international political dynamics of the Cold War, from the origins of the conflict in the late 1940s to the fall of the Berlin Wall and collapse of the Soviet Union four decades later. Drawing on history and international relations theories, the course will address questions related to the causes of the Cold War, the role of nuclear weapons, the ebb and flow of cooperation between the superpowers, and the dynamics of particular conflicts within the Cold War, such as Korea, Vietnam, and the Cuban Missile Crisis. The course will conclude by examining why the Cold War ended and whether a “new Cold War” is likely on the horizon.

Distributive: Dist:INT or SOC

**GOVT 85.41 - Political Violence**

Instructor: Lyall

This seminar surveys the causes, effects, and consequences of political violence across several empirical domains, including civil war, interstate war, insurgency, coups, rebellions, and organized crime. Given the explosion of research on political violence over the past decade, the course is not (and cannot be) a comprehensive review of the literature. In truth, each of the weekly topics could be the subject of its own dedicated course. Instead, the seminar offers a curated view of some of the core works in the field as well as emerging research areas. Particular attention is paid to recent scholarship (mostly within the past five years) to identify conceptual, theoretical, or empirical gaps in existing studies that might inspire your own research efforts. The course is deliberately interdisciplinary: we draw on political science, behavioral economics, social psychology, history, and anthropology, along with some research in natural sciences. It also bridges the disciplinary divide separating comparative politics and international relations by drawing on both civil and interstate wars, as well as violence at lower levels of intensity and scale. Selected readings also span multiple levels of analysis, ranging from sweeping cross-national comparisons across hundreds of years of history to subnational within-country comparisons to organizational and individual-level approaches. Equal weight is given to theory and research design when discussing these readings.

Distributive: Dist:INT or SOC; WCult:NW

**GOVT 85.42 - Quantitative Analysis of International Cooperation**

Instructor: Wu

This course is a seminar on international relations and statistics. It is intended to provide undergraduate students with the opportunity to read and discuss a range of scholarly literature on cooperation in the international system. It also intends to provide a survey of advanced empirical tools applicable to the topic. We will study conditions under which countries establish, maintain, and terminate cooperation, the design of international agreements and institutions, and the influence of international agreements on foreign policy decisions in various issue areas. Throughout the course, we will also learn statistical methods that have been designed to address such QDS research questions and their applications. The examples include, but not limited to, generalized linear models, matching techniques, ideal point estimation, two-stage least squares, and treatment-effect estimates. This course will culminate in an individual research project. Students will leave this course with a better understanding of international relations, increased ability to design and conduct their own research, and improved quantitative analytical skills.

Cross-Listed as: QSS 30.14

Distributive: Dist:INT or QDS

**GOVT 85.43 - Advances in the Study of International Conflict**

Instructor: Lyall

This collaborative and team-taught course seeks to introduce advanced undergraduates to cutting-edge research on topics by leading experts in international conflict. Taking advantage of an online format, the course features instructors from 11 different universities. The course is organized around important theoretical and empirical puzzles in world politics, including why states go to war, why they win, the rise of China, and how new technologies like robotics and artificial intelligence will shape the future of the international order. Each week features a new topic and a series of online (asynchronous) lectures and (live) discussion seminars. Dartmouth students will thus have the opportunity to hear lectures from leading experts and to participate in a joint, all-university, weekly discussion section led by each professor. We will also have a separate online discussion for Dartmouth students only that I will lead.

Distributive: Dist:INT or SOC

**GOVT 85.44 - Soldier, Army, State, War**

Instructor: Lyall

This seminar examines the relationship between soldiers and societies in the production of violence in war.
Adopting a “war and society” perspective, the course offers a curated view of classic and recent research from political scientists and historians on key questions in the conduct and legacies of war around the world. Questions include: Why do soldiers fight, and why do they run? Why do some armies reach the commanding heights of military effectiveness, while others disintegrate under fire? Why do some militaries rebel against their political leaders? What are the effects of battlefield deaths on the home front? How do societies memorialize their war dead? And does the rise of new technologies like robotics and artificial intelligence affect the relationship between soldiers, armies, and the societies that create them? Equal weight is given to non-Western and Western cases, ranging from imperial China and the Comanche Empire to the United States, Soviet Union, and the Islamic State. Similarly, the course takes an expansive look at war across the centuries, drawing on conflicts as distant as the Peloponnesian War to modern conflicts in Iraq, Afghanistan, and Syria. Students will have the opportunity to explore these theoretical debates and will draw on primary documents, including soldiers’ letters to the home front, in their assignments.

Distributive: Dist:INT or SOC

**GOVT 86.01 - Multiculturalism**

Instructor: Swaine

This course explores the topic of multiculturalism in the context of contemporary debates in political theory. Students will examine the arguments of authors advocating special political and legal treatment for cultural groups, integrated with responses from liberal, conservative, and feminist critics of multiculturalism. The course is designed to provide students with an understanding of central issues in multicultural debates; but its principal aim is to inspire students to think deeply about the principles, values, and institutions that democratic societies might affirm. Among the questions students consider will be the following: Is a multicultural society desirable or workable? Should government provide minority cultures with special recognition, legal exemptions, or group rights? Is multiculturalism bad for women or harmful otherwise? Could any form of multiculturalism adequately emphasize the values of personal autonomy, equality, and fairness? Prerequisite: one course in political theory or political philosophy.

Distributive: Dist:SOC; WCult:CI

**GOVT 86.03 - Contemporary Political Theory**

Instructor: Swaine

Students in this course examine important ideas and trends in contemporary political theory. The course focuses on the works of such theorists as Friedrich Nietzsche, Hannah Arendt, Michel Foucault, and recent advocates of related positions. This course has two aims: first, its object is to foster an understanding of the different writers’ conceptions of, *inter alia*, freedom, persons, power, and action. Second, and more importantly, the course invites students to assess the viability and relevance of the various views considered, with regard to contemporary politics, institutions, and society. Prerequisite: one course in political theory or political philosophy.

Distributive: TMV

**GOVT 86.18 - Contemporary Readings on Justice**

Instructor: Bedi

This seminar covers some of the main contemporary readings on justice. Justice entails the justification of power. Readings include works from Ackerman, Nozick, Rawls, Singer, Young, Walzer, and West. Offering varying accounts of justice, each author attempts to justify power in a particular way. These justifications include utilitarianism, liberal egalitarianism, libertarianism, communitarianism, multiculturalism, and feminism. Active, sustained, and insightful participation is required. Background: one course in political theory/philosophy.

Distributive: TMV

**GOVT 86.24 - Machiavelli**

Instructor: Clarke

Machiavelli is famous for instructing princes about the need to be deceitful, unscrupulous, manipulative, and even cruel if they want to maintain their power. In this class we will talk about why Machiavelli has this reputation and whether or not he deserves it. Topics will include the relative importance of force and persuasion in political life; the proper relationship between ethics and politics; the meaning of republican liberty; civil conflict; and gender.

Distributive: Dist:TMV; WCult:W

**GOVT 86.25 - Adam Smith and Political Economy**

Instructor: Clark

The eighteenth-century Scottish philosopher Adam Smith was one of the founders of "political economy," the study of the interrelationship between society, government, and the economy. This course focuses on Smith's major ideas through his two important works, *The Theory of Moral Sentiments* and *The Wealth of Nations*. The course will deal with such topics as the origins and consequences of economic growth, and the role of government in a commercial society.

Cross-Listed as: ECON 5

Distributive: Dist:SOC; WCult:W

**GOVT 86.26 - Prophets on Trial**

Instructor: Murphy

Prophets, whether true or false, are a profound challenge to any society. Why are prophets so dangerous? Why do they
inevitably come into conflict with political and religious authorities? Several famous prophets were put on trial, creating the most notorious courtroom dramas in world history: Socrates, Jesus, Joan of Arc, Thomas More, Galileo, Oscar Wilde, and John Scopes. We shall be studying the lives and deaths of these amazing personalities to see what their trials tell us about law and justice. We shall compare historical and literary accounts of these trials to see whether we find the truth better in history or in literature.

Distributive: Dist:TMV

**GOVT 86.27 - Ethics of the Family**

Instructor: Rose

The family is a social and political institution profoundly shaped by the law. This course examines the family as a site of justice subject to normative assessment, and asks how the state ought to regulate the family and how citizens ought to act within it. Questions include: Is there a right to procreate? Do parents have rights to determine their children’s moral and religious educations? Should marriage be legally recognized or incentivized? How should household labor be shared between partners? Is the gender wage gap unobjectionable if it results from women’s choices? Throughout, we consider the practical implications of these theoretical questions for both public policy and individual ethics.

Distributive: Dist:TMV; WCult:W

**GOVT 86.30 - Current Research in Social/Political Philosophy**

Instructor: Muirhead, Plunkett

What kind of society should we aim to have? And why should we aim to have that kind of society as opposed to some other kind? And are there objectively right answers to these two previous questions, or are there ultimately only answers that are correct relative to a given social/historical framework? These three abstract questions have long been at the heart of social/political philosophy, from Aristotle and Plato to the present day. They are also questions that matter tremendously to a wide range of citizens in our increasingly globalized world: a world in which different societies, with different cultures, different social/political structures, and different moral values come into increased contact with other. This course will be focused on these three interconnected questions. It will be an advanced discussion-based seminar, and will involve multiple visiting speakers. All students will be expected to have at least two previous courses in philosophy or in political theory.

Prerequisite: Two government courses in political theory, or instructor permission

Cross-Listed as: PHIL 50.21

Distributive: TMV

**GOVT 86.31 - The Political Philosophy of Nietzsche**

Instructor: Clarke

This course is an intensive study of Friedrich Nietzsche, a giant of the Western political tradition who claimed to break with everything that came before him. We will read a number of his most important works in their entirety with a view to determining whether or not he really did so, and what he proposed to leave in its place.

Distributive: Dist:TMV; WCult:CI

**GOVT 86.32 - Tocqueville’s Democracy in America**

Instructor: Latimer

Tocqueville’s *Democracy* is said by some to be the best book ever written on American democracy. Yet few read it—that is to say, read it all, from front to back. Most, if they read it at all, content themselves with the few chapters that might be included in an anthology. Indeed, one might say that few today read books of any sort, especially big, serious, non-fiction books. This is a chance to read a book—an entire book, a big book, an important book… perhaps the most important book about politics that you will ever read.

The point of this course, in short, is to read Tocqueville’s book—and discuss it, and ultimately evaluate whether Tocqueville’s book is merely a reflection on Jacksonian America, or whether it is, in our estimation, a book on democracy as such. If it is a book on democracy as such, what does it suggest we have to hope for or to fear from the democratic age?

Distributive: Dist:TMV; WCult:W

**GOVT 86.33 - Wittgenstein and Contemporary Politics**

Instructor: Turner

This seminar focuses on the philosophical thought of Ludwig Wittgenstein (1889-1951) and explores its applicability to contemporary politics. The seminar is divided into three parts. In the first part, students will become broadly familiar with Wittgenstein’s philosophical thought, especially his understanding of language games, forms of life, family resemblances, and rule following (weeks 1-4). In the second part of the seminar, we explore Wittgenstein’s philosophical thought in the context of contemporary political theory. In the third part, students will form small groups and present a political issue of their choosing to the class, and lay out and discuss a “Wittgensteinian” approach to understanding and thinking about the issue (weeks 7-9).

Distributive: Dist:TMV; WCult:W
GOVT 86.34 - Ethics, Economics, and the Environment
Instructor: Rose
This course examines the ethics and economics of our environmental choices and public policies. Throughout, we will examine important and difficult questions of practical relevance, including: Should you be an ethical consumer? What is the value of nature, and can we put a price on it? What’s a fair distribution of environmental goods? Who should bear the costs of climate change? Is economic growth the problem or the solution? How should we measure social progress?
Distributive: Dist:TMV

GOVT 86.35 - Feminist Theory
Instructor: Threadcraft
This seminar is designed to provide an overview of significant themes and debates within feminist theory. It is organized around several topic areas - most centrally Intersectionality and the Body (including the racially marked body, the covered body and the body in motion, across both national and gender boundaries).
Cross-Listed as: AAAS 20 WGSS 67.05
Distributive: Dist:SOC

GOVT 86.37 - The Ethics of War and Peace
Instructor: Murphy
The danger of nuclear war threatens the survival of life on earth. Nothing could be more urgent now than to address the moral issues raised by the violence of war. What is war? A conflict between governments or between peoples? Is war ever permissible? Should there be moral constraints in the conduct of war? Are such constraints feasible? What is peace? The absence of war? Or true friendship between peoples? We shall be reading classic and contemporary authors about the nature of war and peace. We conclude by considering arguments for non-violence in the thought of Gandhi and Martin Luther King. Can non-violent resistance prevent wars?

GOVT 86.38 - Justice and Work
Instructor: Rose
This course examines how our societies ought to arrange their political and economic institutions and public policies with respect to work. Students will evaluate the existing world of work and ask whether and in what respects it ought to be transformed. Subjects we will consider include: workplace inequalities; the duty to work and workfare requirements; decent and meaningful work; public support for caregiving; emotional labor and domestic work; workplace democracy and public control over the means of production; shortening work hours and a universal basic income; and technological change and the future of work.

GOVT 86.39 - Practical Wisdom and Its Enemies: Why we need this master virtue, how we learn it, and what corrodes
Instructor: Sharpe
The subject of this course is Practical Wisdom. Throughout the course, we will be investigating five questions: (1) What is practical wisdom? (2) Why do we constantly need it to make tough ethical choices in everyday life? (3) How do we learn it? (4) How is it undermined by incentives, rules, and digital technology? (5) How can it be learned and protected in our everyday lives and in academic, professional and political institutions?

We will investigate these questions in several important domains of life—friendship, education, work, medicine, law, and politics. We will look at classical and modern theories in philosophy and psychology about what practical wisdom is and how it is learned, and undermined. Throughout the course, we will be contrasting decision-making that depends on practical wisdom, or judgment, with decision making that depends on rule-following and incentives.
Distributive: Dist:TMV

GOVT 86.40 - Law and Society
Instructor: Rosenberg
This seminar examines some of the myriad relationships between courts, laws, lawyers and the larger society in the U.S. Issues covered include legal consciousness, judicial biases, the role of rights, access to courts, legal education and the legal profession, and implementation of judicial decisions. It is not a law course. No judicial decisions are assigned.

The substantive goal of the seminar is to help you develop a more sophisticated and deeper understanding of the ways in which laws, lawyers, judges and courts actually interact with people’s day-to-day lives. In addition, through class discussion and papers, the seminar aims to sharpen your ability to effectively communicate your ideas. Part of effective communication is improving your ability to disagree with others without being disagreeable, to express your views in ways that respect others and open, rather than, close discussion.

Distributive: Dist:SOC

GOVT 86.41 - Ethics, Politics, and the Law
Instructor: Muirhead
This interdisciplinary course will examine normative issues about ethics, politics, and the law. Specific question studied might include the following: When is the state
justified in using coercive force to secure compliance with the law? How should we proceed with those who disagree with us about normative questions within a democratic, pluralistic society? Are there correct answers to normative questions at all, and (if so) how might we improve in learning about them?

Cross-Listed as: PHIL 38.02
Distributive: Dist:TMV

**GOVT 86.42 - Work, Leisure, and a Good Life**

Instructor: Murphy

In this course, we combine classic and contemporary readings to consider what kinds of work and what kinds of leisure lead to human happiness and well-being. All our readings, discussions, and essays are focused on helping students reflect on the optimal balance of work and leisure in their own lives. This course is open to all students but is especially intended to provide a capstone experience for our PPE modified Government majors, since it combines Politics, Philosophy, and Economics.

Distributive: Dist:TMV; WCult:W

**GOVT 86.43 - The Intellectual History of Racism: From Antiquity to America**

Instructor: Clarke

When was the concept of race born? Why was it invented, and how did it change the way that we think about politics? This seminar explores the forgotten “ism” of intellectual history — racism. We will survey ideas of racial difference across history and look at how they have been used to justify inequalities of power. Readings will be a mix of primary source materials and scholarly research in classics, history, religion, and philosophy.

Distributive: Dist:TMV; WCult:CI

**GOVT 86.44 - The American Public World**

Instructor: Schiller

This course explores the role of physical spaces, objects, and landmarks in American public life. We will explore how these places come into existence, shape historical narratives, and reinforce attachment to or alienation from American civil society. Examples will include the Statue of Liberty, the Smithsonian museums and the National Mall, and Monument Avenue in Richmond, VA. This class will combine political theorists like Alexis de Tocqueville, Hannah Arendt, and Jurgen Habermas with modern and contemporary scholarship in history, architecture, and social science. We will devote a portion of class specifically to the question of monuments to the Confederacy and the Civil War and their role in catalyzing mass movements as well as negotiations over physical representations of political history.

Distributive: Dist:SOC

**GOVT 86.45 - Race, Justice, and the Law**

Instructor: Muirhead, Plunkett

The last few years has seen increased calls for “racial justice” by a range of actors across the USA. How should we evaluate these calls? For example: what exactly is racial justice? What would it mean for our society to achieve more of it? And what methods for achieving it are (and are not) permissible in a pluralistic, democratic society? We will approach these and related questions by engaging with theories of racial justice, general theories of justice, and theories of race and racism. As part of our discussion, we will also engage with debates about more specific social/political issues tied to debates about racial justice, including such issues as mass incarceration, the foundations of criminal law, affirmative action, antidiscrimination law, propaganda, ideology critique, and political speech.

Cross-Listed as: PHIL 38.03
Distributive: Dist:TMV

**GOVT 90 - Seminar**

Instructor: Mastanduno

Course taught by a member of the faculty of the Department of International Relations of the London School of Economics and Political Science. Dartmouth students attend class with the LSE faculty member. (This course counts as a mid-level course and not as a seminar for the major or minor).

**GOVT 91 - Seminar**

Instructor: Mastanduno

Course taught by a member of the faculty of the Department of International Relations of the London School of Economics and Political Science. Dartmouth students attend class with LSE faculty. (This course counts as a mid-level course and not as a seminar for the major or minor).

**GOVT 92 - Seminar**

Instructor: Mastanduno

Seminar taught by the London FSP faculty director. This course counts as a seminar for the Government major or minor.

**GOVT 93 - Washington DC - Internship Essays**

Instructor: Baldez

An internship with a public or private agency or organization intended to give students practical experience of political life in the nation's capital. Each student will write weekly essays relating his or her work experience to broader issues in political science. (This course counts as a mid-level course and not as a seminar course for the major or minor.)
GOVT 94 - Seminar
Instructor: Baldez
Seminar taught by the Washington DC faculty director. This course counts as a seminar for the Government major or minor.
Distributive: Dist:SOC; WCult:W

GOVT 95 - Seminar
Instructor: Baldez
Seminar taught by the Washington DC faculty director. This course counts as a seminar for the Government major or minor.
Distributive: Dist:SOC; WCult:W

GOVT 96.01 - Russia in the World
Instructor: Bafumi
This course will survey Russian foreign relations with the United States, the European Union, East Asia, the Middle East and the former soviet states. It will do so while covering a number of important themes for the Russian state including energy, economic dynamics, geopolitics, transnational coalitions, and diplomacy. Students will benefit from having multiple professors teaching in their specific areas of expertise. Students should come away from this class with a deep understanding of Russia's role in the world, its future ambitions and how these impact the current world order. While formal lectures will end in the Moscow portion of the trip, students will receive further instruction via guest speakers, meetings and experiential learning events in St. Petersburg.
Distributive: Dist:INT; WCult:W

GOVT 96.02 - Russian Political Systems
Instructor: Bafumi
This course will give students an in-depth understanding of domestic Russian political systems. It will begin with a brief history of the Russian nation and then cover contemporary Russian political institutions, political behavior, the national budget, media, human rights, and group politics (race, LGBT rights, youth movements, and gender). Students will benefit from having multiple professors teaching in their specific areas of expertise. Students should come away from this class with a very solid understanding of modern, domestic politics in Russia.
Distributive: Dist:INT; WCult:W

GOVT 96.03 - Special Topics in Russia
Instructor: Bafumi
This class will cover contemporary U.S.-Russian relations with a specific focus on the new age of information warfare. We will cover electoral interference, cyberwar, propaganda and the perils of modern diplomacy. We will do so with book and article readings, lectures, discussions, and guest talks. We will also meet about one third of the time with Professor Gronas and his students to benefit from the perspective of an expert on Russian culture and language. Students should come away from the course with a solid understanding of the challenges of information warfare, both defensive and offensive, between nuclear powers. The course will begin with an introductory reading on modern Russia. We will then move to specific topics in information warfare with a final reading on the perils of modern diplomacy between the U.S. and Russia in the contemporary context. In most class sessions, students will be chosen to be discussion captains. They will present additional material closely related to the assigned readings which help us understand the topics of study more thoroughly or from additional perspectives. Students will also complete an essay-based midterm and final exam based on the material covered in class.
Distributive: Dist:INT; WCult:W

GOVT 97 - Honors Research
Instructor: Swaine, Valentino
Government 97 provides students with the intellectual tools necessary to research and write high quality senior honors theses in the field of government. Among other activities, students will review the strengths and weaknesses of previous government honors theses, examine various political science research methods and receive critical feedback from the program directors and fellow students on written work including research proposals and draft chapters.

GOVT 98 - Honors Research
Instructor: Swaine, Valentino
Students are awarded one course credit for successful completion of this course upon completion of GOVT-099. Students register for GOVT-098 and receive a grade of “ON” (ongoing) at the end of the term. Students then register for GOVT-099 the subsequent term to complete the coursework. A final grade will replace the “ON” in GOVT-098 upon completion of GOVT-099. Alternatively, students may also take GOVT-098 and GOVT-099 concurrently during the winter term and receive an “ON” for both courses until the completion of the honors program at the end of the spring term.

GOVT 99 - Honors Thesis
Instructor: Swaine, Valentino
Students are awarded one course credit for successful completion of this course. Students who have registered for GOVT-098 register for GOVT-099 to complete the coursework. A final grade will replace the “ON” for GOVT-098 upon completion of this course for a total of 2 credits for GOVT-098 and GOVT-099. Alternatively, students may take GOVT-098 and GOVT-099 concurrently during the winter term and receive an “ON” for both courses until the completion of the honors program at the end of the spring term.

History

Chair: M. Cecilia Gaposchkin


To view History courses, click here (p. 445).

The Department of History offers a Standard Major, a Modified Major, an Honors Major, and a Minor. Requirements for the major and minor differ for the classes of 2023 and earlier, and the classes of 2024 and later. Because planning is essential, it is critical that a student establish a relationship with a faculty member who can act as an adviser. Any member of the Department can serve as a major adviser, and it is best to pursue this relationship as early as possible. If you do not know whom to approach, the Department Chair or Vice Chair can suggest a possible adviser to suit your interests. (The Vice Chair approves all modifications, double majors, and transfer credit inquiries.)

While the course information listed below was complete and accurate as it went to press, it is normal for scheduling changes to occur, including the adding and dropping of courses. For the most up-to-date list of courses, click here.

Fulfilling a History Major requires the successful completion of at least ten approved courses. After reviewing the requirements listed below, students should refer to the History Major Worksheet in planning out the History courses required to fulfill the major requirements relevant to their class. See History Department website here: https://history.dartmouth.edu/undergraduate.

I. MAJORS AND THE MINOR OPEN TO THE EARLIER

A. Standard Major in History for class of 2023 and earlier

Requirements:

The Standard Major in History comprises the successful completion of at least ten History courses that meet the following requirements:

1. Geographic Distribution
   For the purposes of the major requirements applicable to the class of 2023 and earlier, most courses fall into one of four areas: (1) United States (designated Major Dist: US in the course listing below); (2) Europe (designated Major Dist: EUR in the course listing below); (3) Africa, Asia, Latin America and the Caribbean (designated Major Dist: AALAC in the course listing below); or (4) Interregional and Comparative (designated Major Dist: INTER in the course listing below).

Your ten History courses must include, at a minimum:

   a. one course in the history of the United States;
   b. one course in the history of Europe
   c. two courses in the histories of Africa, Asia, Latin America & Caribbean
   d. one Interregional or Comparative history course

2. Chronological Distribution
   Your ten History courses must contain, at a minimum, two pre-1700 or three pre-1800 courses. In the course listing below, courses fulfilling the pre-1700 requirement are designated <1700, while <1800 designates those fulfilling the pre-1800 requirement.

3. Seminars or Colloquia
   All Standard Majors in the department must complete two courses involving advanced historical practice, one of which will represent the culminating experience. Most students meet this requirement by enrolling in two HIST 96s, which are small courses (normally capped at 12) that allow students to work closely with a faculty member and to produce a final project that represents either original research in primary sources or (with colloquia) a historiographical contribution to the existing scholarly literature. Those who complete the London FSP or the
Honors Seminar (HIST 98), need to complete only one 96, which represents the culminating experience for the major. Careful advanced planning regarding enrollment in 96s is necessary for two reasons. First, the capped enrollment means that several 96s will have more students wishing to take the course than available space. In these cases, the department and the instructor will prioritize enrollment. Second, work at the advanced level is most rewarding when it builds upon previous exposure to a field. You should work with your adviser to consider which seminars can best represent this sequencing model that follows exposure to a topic in introductory and upper-level classes.

4. Field of Concentration
All majors are encouraged to identify an area of concentration within the broad field of History. Establishing a critical mass of classes each related to a geographic, chronological or thematic concentration will enhance a student’s ability to develop expertise and make connections. (All students in the Class of 2016 and before are required to identify at least five History courses related to a field of concentration. One of these must be a culminating experience in the form of a HIST 96.)

5. Limits and Exclusions
1. At least five History courses must be taken in residence at Dartmouth College, one of them being HIST 96.
2. HIST 7 (First-Year Seminar) and HIST 99 (Honors Thesis) may not be counted toward the Standard Major.
3. Students may not use more than three seminars and colloquia (HIST 96) and two independent study courses (HIST 97) in satisfying the requirements of the Standard Major.
4. Major GPA is figured on all History courses taken.
5. The Department will consider approving transfer credits for History majors and non-majors only for History courses taken at institutions with which Dartmouth College has institutional exchange programs (see Regulations section of this Catalog).
6. Only transfer students may receive credit for courses taken at other colleges or universities prior to matriculation at Dartmouth.

B. Modified Major in History for class of 2023 and earlier
A Modified Major will be approved only if the student provides a convincing written rationale for the intellectual coherence of the proposed program of study. This should be produced at least two terms prior to graduation.

Typically, modifications will not be approved in the last two terms of a student's enrollment.

Requirements:
The Modified Major consists of the successful completion of twelve courses, eight of them in History, and four from one or more modifying departments/programs. If the four modifying courses are in a single department/program, your Modified Major plan and rationale must be approved by the Vice Chair of the History Department and the Chair of the modifying department/program. If the four modifying courses are drawn from more than one department/program, your plan and rationale for a Modified Major needs to be approved only by the Vice Chair of the History Department. The requirements in History need to meet the following requirements:

1. Geographic Distribution
For the purposes of the major requirements applicable to the class of 2023 and earlier, most courses fall into one of four areas: (1) United States (designated Major Dist: US in the course listing below); (2) Europe (designated Major Dist: EUR in the course listing below); (3) Africa, Asia, Latin America and the Caribbean (designated Major Dist: AALAC in the course listing below); or (4) Interregional and Comparative (designated Major Dist: INTER in the course listing below).

Your eight History courses must contain at least one course from each of the following areas:
   a. United States
   b. Europe
   c. Africa, Asia, Latin America & Caribbean
   d. Interregional

2. Chronological Distribution
Your eight History courses must contain at least two pre-1800 courses. In the course listing below, courses fulfilling the pre-1800 requirement are designated <1800.

3. Seminars or Colloquia
Modified majors must complete one course involving advanced historical practice which will represent the culminating experience. Most students meet this requirement by enrolling in HIST 96, a small course (normally capped at 12) that allow students to work closely with a faculty member and to produce a final project that represents either original research in primary sources or (with colloquia) a historiographical contribution to the existing scholarly literature. HIST 98 (Honors Seminar) and the London FSP may not count as a culminating experience for Modified Majors.

4. Field of Concentration
All Modified Majors are encouraged to identify an area of concentration within the broad field of History. Establishing a critical mass of classes each related to a
geographic, chronological or thematic concentration will enhance a student's ability to develop expertise and make connections. (All students graduating in or before 2016 are required to identify at least four History courses related to a field of concentration.) One of these must be a culminating experience in the form of a HIST 96.

5. Limits and Exclusions, described under the Standard Major (5), also apply to the Modified Major.

C. Honors Major in History for class of 2023 and earlier

Potentially eligible students should meet with their respective advisers to plan for the History Honors Major. History majors who have achieved an overall College grade point average of 3.0 and one of 3.5 in History (based on a minimum of five graded History courses) may apply for admission to the Honors Program through a written thesis proposal submitted in the spring term of their junior year. Others interested in the program may petition the Department for admission. Please consult the History Department’s website at https://history.dartmouth.edu/undergraduate/honors for more information.

The Honors Program in History consists of the successful completion of the following requirements:

1. The minimum number of courses as specified in (1), (2), (3), and (4) under the requirements for the Standard or Modified Majors.

2. In addition to, or as part of, the Standard Major or Modified Major, honors majors must complete the Honors Seminar (HIST 98) in the fall term of their senior year. HIST 98 may serve as one of the two required upper level seminars and colloquia for the Standard Major; it may not serve as the culminating experience in (3) above.

3. Honors majors submit a thesis written in their senior year (HIST 99.01 in the Winter Term and HIST 99.02 in the Spring Term). HIST 99 may carry up to two credits toward the degree requirement, but receives no credit within the Honors Major.

4. Limits and Exclusions, described under the Standard Major (5), also apply to the History Honors Program.

D. Minor in History for class of 2023 and earlier

The Minor in History consists of the successful completion of seven History courses:

1. Geographic Distribution
   For the purposes of the major requirements applicable to the class of 2023 and earlier, most courses fall into one of four areas: (1) United States (designated Major Dist: US in the course listing below); (2) Europe (designated Major Dist: EUR in the course listing below); (3) Africa, Asia, Latin America and the Caribbean (designated Major Dist: AALAC in the course listing below); or (4) Interregional and Comparative (designated Major Dist: INTER in the course listing below).

Your seven History courses must contain at least one course from each of the following areas:

a. United States
b. Europe
c. Africa, Asia, Latin America & Caribbean
d. Interregional

2. Chronological Distribution

Your seven courses must contain at least two pre-1800 courses. In the course listing below, courses fulfilling the pre-1800 requirement are designated <1800.

3. Seminar or Colloquia

All Minors must complete one course involving advanced historical practice which will represent the culminating experience. Most students meet this requirement by enrolling in HIST 96, a small course (normally capped at 12) that allows students to work closely with a faculty member and to produce a final project that represents either original research in primary sources or (with colloquia) a historiographical contribution to the existing scholarly literature.

4. Field of Concentration

All Minors are encouraged to identify an area of concentration within the broad field of History. Establishing a critical mass of classes each related to a geographic, chronological or thematic concentration will enhance a student's ability to develop expertise and make connections. One of these must be a culminating experience in the form of a HIST 96.

5. Limits and Exclusions, described under the Standard Major (5), also apply to the Minor.

II. Majors and the Minor open to the classes of 2024 and after
A. Standard Major in History for class of 2024 and after

Requirements:

1. Geographical Distribution

For the purposes of the major requirements applicable to the class of 2024 and later, most courses fall into one of six areas: (1) Africa, (2) Asia, (3) Europe, (4) Latin America & the Caribbean, (5) Middle East, (6) United States. Your ten History courses must include one course from at least four of these six areas.

2. Chronological Distribution

Your ten History courses must include, at a minimum, two pre-modern courses and two modern courses.

3. Seminars and Colloquia

All majors in the department must complete two courses involving advanced historical practice, one of which will represent the culminating experience. Most students meet this requirement by enrolling in two 96s, which are small courses (normally capped at 12) that allow students to work closely with a faculty member and to produce a final project that represents either original research in primary sources or (with colloquia) a historiographical contribution to the existing scholarly literature. Those who complete the London FSP or the Honors’ Seminar need to complete only one 96 on campus. For FSP students, their on campus 96 will be the culminating experience. For students in the Honors Program, the honors thesis will be the culminating experience. Careful advanced planning regarding enrollment in 96s is necessary for two reasons. First, the capped enrollment means that several 96s will have more students wishing to take the course than available space. In these cases, the department and the instructor will prioritize enrollment. Second, work at the advanced level is most rewarding when it builds upon previous exposure to a field. Students should work with their advisors to select a number of classes related to a geographic, chronological, or thematic area that will prepare them for their advanced coursework. Students should then consider which seminars can best build on this previous coursework.

4. Limits and Exclusions

a. At least five History courses must be taken in residence at Dartmouth College, one of them being HIST 96.

b. HIST 7 (First-Year Seminar) and History 99 (Honors Thesis) may not be counted toward the Standard Major.

c. Students may not use more than two independent study courses (HIST 97) in satisfying the requirements of the Standard Major.

d. Only those major courses passed with a letter grade may be counted in satisfaction of the major. Courses taken under the Non-Recording Option (NRO) may not be used toward completion of the major.

e. Major GPA is figured on all History courses taken.

f. The Department will consider approving transfer credits for History majors and non-majors only for History courses taken at institutions with which Dartmouth College has institutional exchange programs.

g. Only transfer students may receive credit for courses taken at other colleges or universities prior to matriculation at Dartmouth.

B. Modified Major in History for class of 2024 and after

Requirements:

1. Geographical Distribution

For the purposes of the major requirements applicable to the class of 2024 and later, most courses fall into one of six areas: (1) Africa, (2) Asia, (3) Europe, (4) Latin America & the Caribbean, (5) Middle East, (6) United States. Your eight History courses must include one course from at least three of these six areas.

2. Chronological Distribution

Your eight History courses must include, at a minimum, two pre-modern courses and two modern courses.

3. Seminars or Colloquia

All modified majors in the department must complete at least one course (HIST 96) on campus involving advanced historical practice, which will represent the culminating experience. Careful advanced planning regarding enrollment in 96 is necessary for two reasons. First, the capped enrollment means that several 96s will have more students who wish to take the course than available space. In these cases, the department and the instructor will prioritize enrollment. Second, work at the advanced level is most rewarding when it builds upon previous exposure to a field. Students should work with their advisors to select a number of classes related to a geographic, chronological, or thematic area that will prepare them for their advanced coursework. Students should then consider which seminars can best build on this previous coursework.
4. **Limits and Exclusions**
   
a. At least five History courses must be taken in residence at Dartmouth College, one of them being HIST 96.
   
b. HIST 7 (First-Year Seminar), HIST 98 (Honors Seminar) and History 99 (Honors Thesis) may not be counted toward the modified major.
   
c. Students may not use more than two independent study courses (HIST 97) in satisfying the requirements of the modified Major.
   
d. Modified major GPA is figured on all History courses taken.
   
e. Only those major courses passed with a letter grade may be counted in satisfaction of the major. Courses taken under the Non-Recording Option (NRO) may not be used toward completion of the modified major.
   
f. The Department will consider approving transfer credits for History majors and non-majors only for History courses taken at institutions with which Dartmouth College has institutional exchange programs.
   
g. Only transfer students may receive credit for courses taken at other colleges or universities prior to matriculation at Dartmouth.

C. **Honors Major in History for class of 2024 and after**

Requirements:

Potentially eligible students should meet with their respective advisers to plan for the History Honors Major. History majors who have achieved an overall College grade point average of 3.0 and one of 3.5 in History (based on a minimum of five graded History courses) may apply for admission to the Honors Program through a written thesis proposal submitted in the spring term of their junior year. Others interested in the program may petition the Department for admission. Please consult the History Department’s website at https://history.dartmouth.edu/undergraduate/honors for more information.

The Honors Program in History consists of the successful completion of the following requirements:

1. The minimum number of courses as specified in (1), (2), and (3) under the requirements for the Standard or Modified Majors.
2. In addition to, or as part of, the Standard Major or Modified Major, honors majors must complete the Honors Seminar (HIST 98) in the fall term of their senior year. HIST 98 may serve as one of the two required upper level seminars and colloquia for the Standard Major; it may not serve as the culminating experience in (3) above.
3. Honors majors submit a thesis written in their senior year (HIST 99.01 in the Winter Term and HIST 99.02 in the Spring Term). HIST 99 may carry up to two credits toward the degree requirement, but receives no credit within the Honors Major.

D. **Minor in History for class of 2024 and after**

Requirements:

1. **Geographical Distribution**

   For the purposes of the major requirements applicable to the class of 2024 and later, most courses fall into one of six areas: (1) Africa, (2) Asia, (3) Europe (4) Latin America & the Caribbean, (5) Middle East, (6) United States. Your seven History courses must include one course from at least three of the six areas.

2. **Chronological Distribution**

   Your seven History courses must include, at a minimum, two pre-modern courses and two modern courses.

3. **Seminar or Colloquia**

   All Minors must complete one course involving advanced historical practice. Students meet this requirement by enrolling in HIST 96, a small course (normally capped at 12) that allows students to work closely with a faculty member and to produce a final project that represents either original research in primary sources or (with colloquia) a historiographical contribution to the existing scholarly literature. Work at the advanced level is most rewarding when it builds upon previous exposure to a field. Students should work with their advisors to select a seminar that builds on their previous History coursework.

4. **Limits and Exclusions**

   a. At least four History courses must be taken in residence at Dartmouth College, one of them being HIST 96.
   
b. HIST 7 (First-Year Seminar) and History 99 (Honors Thesis) may not be counted toward the minor.
   
c. Students may not use more than two independent study courses (HIST 97) in satisfying the requirements of the minor.
   
d. At most one course in the minor may be taken under the NRO.
   
e. Minor GPA is figured on all History courses taken.
   
f. The Department will consider approving transfer credits for History majors/minors and non-majors only for History courses taken at institutions with which Dartmouth College has institutional exchange programs.
Only transfer students may receive credit for courses taken at other colleges or universities prior to matriculation at Dartmouth.

HIST - History Courses

To view History requirements, click here (p. 440).

HIST 1 - Turning Points in American History
Instructor: Bonner. Butler

Students in this course will analyze and evaluate a very select number of "pivotal moments" over the past four centuries of American history. As an introduction to historical thinking and argumentation, the course will combine close scrutiny of documents from the past with an awareness of interpretive issues of contingency, determinism, and historical agency raised by leading contemporary historians.

Distributive: Dist:SOC; WCult:W

HIST 2 - #EverythingHasAHistory: Understanding America Today

This introductory course will explore the historical roots of current events in the United States. This course demonstrates how history is woven into the fabric of our everyday lives and why understanding history is important for understanding the present and navigating the future. We will focus on case studies—such as immigration and borders, computers and society, and race and whiteness—and expect the syllabus to evolve in real time depending on what is in the news during the quarter. This class serves as an introductory course for History majors, but is open to all students.

Distributive: Dist:SOC; WCult:W

HIST 3.01 - Europe in the Age of Wonder
Instructor: Gaposchkin and Simons

This course examines Europe from the fall of the Roman Empire in the 5th century through religious warfare in the 17th century, when society, economics, politics, and culture were guided by a sense of wonder, which held people in awe of their rulers and the divine. Wonder did not imply passivity: from the disintegration of the Roman Empire to the emergence of early nation states, through crusades, the expansion of trade, religious reformation, and advances in scientific thinking. Europeans drew on their experiences to develop new concepts of representative government, individual liberty, and religious meaning.

Distributive: Dist:SOC; WCult:W

HIST 3.02 - Europe in the Age of Discovery

This course introduces students to an age of discovery during which Europeans encountered worlds, real and imagined, far beyond the realm of the familiar. Between the latter half of the 14th century through the late 18th century European society, economics, politics, ideas, and culture were altered in ways that increasingly took on aspects of modernity. From the aftermath of a pandemic crisis through a period punctuated by religious reformation, civil wars, and revolutionary regicides, Europeans steadily adopted more modern attitudes to property, authority, community, work, family, the body, nature, and supernatural forces.

Distributive: Dist:SOC; WCult:W

HIST 3.03 - Europe in the Age of Violence
Instructor: Greenberg, Petruccelli

The last two centuries were an era of dramatic transformations and contradictions: while Europeans enjoyed unprecedented prosperity, technological advances, and social mobility, they also unleashed and experienced empire, terror, total war, foreign occupations, and mass murder. Throughout these 100 years, contrasting visions of a new society ushered in a range of different regimes—monarchical empires, liberal republics, murderous and racist dictatorships, Communist autocracies, and a democratic welfare states—yet these visions also led to the emancipation of women, the development of a new consumer society, the creation of environmentalist movements and new counter-cultures, and the transformation of everyday lives.

Distributive: Dist:SOC; WCult:W

HIST 4.01 - The Crusades
Instructor: Briggs, Gaposchkin

The crusades, launched by European Christians who sought to secure military control over the Holy Land, led to a period of sustained and largely inimical contact between Christian and Muslim cultures. Covering the period from 1095-ca.1350, this course explores the cultural, religious, and ideological contexts of crusade history which shaped notions of religious violence, holy war, and ethnic cleansing, along with a long history of distrust between the peoples of Christian Europe (or the Christian West) and the Islamic Middle East.

Distributive: DIST:INT or SOC; WCult: CI

HIST 4.02 - Introduction to the History of the Islamic Middle East

This course is a survey of the histories and cultures of the Islamic Middle East, starting in the era before the advent of Islam in the 7th century until the eve of the 20th century. This class will begin with the regional and global contexts in which Islam emerged, examining the history of the Prophet Muhammad, the Qur’anic revelation, and the first community of believers. We will then look at the expansion of the “abode of Islam” over the course of several centuries, asking why so many people in so many different regions converted to Islam. We will also study
philosophical, cultural, legal, political, and social trends in region now known as the Middle East and North Africa until the era of early European colonialism.

Distributive: Dist:INT or SOC; WCult:NW

**HIST 4.03 - Introduction to the Modern Middle East and North Africa**

Instructor: Simon, Nikpour

The diverse nations and peoples that make up the Middle East and North Africa are of major significance in our contemporary world, at the same time that they are often misunderstood or given only superficial (albeit spectacular) popular attention. This lecture course is designed to give students a nuanced introductory overview of the modern histories of this region. Students will read a variety of primary and secondary materials designed to familiarize them with the historical, cultural, and social processes that have affected and transformed the region in question, and will learn to put these regional histories in a global framework. The course begins with a brief summary of the early modern Islamicate “Gunpowder” Empires—Mughal, Safavid/Qajar, Ottoman—and then moves through several topics of significance: the era of European colonialism; the establishment of the nation state; competing discourses of nationalism; the emergence of Third Worldist and anti-colonial movements; the Israeli-Palestinian conflict; debates over the politics of gender; the effects of the Cold War; the processes of decolonization and the establishment of post-colonial states; the rise of revolutionary Islamism; oil politics and policies; globalization and neoliberalism; 9/11, terrorism, and wars in Iraq and Afghanistan; the Arab uprisings of 2010-2011; and the region’s uncertain present and future.

Cross-Listed as: MES 02.03
Distributive: Dist:SOC; WCult:NW

**HIST 5.01 - Pre-Colonial African History**

Instructor: Sackeyfio-Lenoch

This course will examine the social and economic history of Africa to 1800. Several interrelated themes of social organization, the expansion of trade, rise of new social classes, the emergence and disintegration of various states and European intervention will be discussed. Through our readings, we will visit every major historical region of Africa (north, east, central, west and south) at least once during the semester to illuminate the various themes.

Cross-Listed as: AAAS 14
Distributive: Dist:SOC; WCult:NW

**HIST 5.03 - The History of China since 1800**

Instructor: Cheng

This survey course traces China's social, political, and cultural development from the relative peace and prosperity of the high Qing period, through the devastating wars and imperialist incursions of the nineteenth century, to the efforts, both vain and fruitful, to build an independent and powerful new nation. Open to all classes.

Cross-Listed as: ASCL 64.08
Distributive: Dist:SOC; WCult:NW

**HIST 5.04 - Introduction to Korean Culture**

Instructor: Suh and Lim

This course provides an introduction to Korean culture and history, examining Korea's visual and textual expressions from the pre-modern age to the twentieth century. What are the origins of Korean national and cultural identities? How have Korean claims of cultural distinctiveness been manifested and modified over time? Tracing answers to these questions simultaneously helps us to consider how and why Korea has entered America's consciousness. As Korea matters to the US not simply as a fact but as a project, this course avoids portraying Korea through any generalized statements or uncritical categories. Rather, students are encouraged to explore novel perspectives on Korea and thereby unravel their own prejudices and agendas. No prior acquaintance with the Korean language is required.

Cross-Listed as: ASCL 10.02
Distributive: Dist:SOC; WCult:CI

**HIST 5.05 - The Emergence of Modern Japan**

Instructor: Mills, Ericson

A survey of Japanese history from the mid-nineteenth century to the present. Topics to be covered include the building of a modern state and the growth of political opposition, industrialization and its social consequences, the rise and fall of the Japanese colonial empire, and the postwar economic 'miracle.'

Cross-Listed as: ASCL 64.11
Distributive: Dist:SOC; WCult:NW

**HIST 5.08 - Africa and the World**

This course focuses on links between Africa and other parts of the world, in particular Europe and Asia. Readings, lectures, and discussions will address travel and migration, economics and trade, identity formation, empire, and cultural production. Rather than viewing Africa as separate from global processes, the course will address historical phenomena across oceans, deserts, cultures, and languages to demonstrate both the diversity of experiences and the long-term global connections among disparate parts of the world.

Cross-Listed as: AAAS 19
Distributive: Dist:INT or SOC; WCult:NW
HIST 5.11 - Gandhi, Twentieth Century India and the World

This course explores the history of modern India through the figure of Mahatma Gandhi. After exploring early developments in Gandhi's life and his philosophy of non-violence, we will examine the role of Gandhi and of his image in major political developments in India. We will also take up many key issues relating to Gandhian thought, including Hindu-Muslim relations, caste, gender and sexuality, and social equality. Finally, we will discuss Gandhi's legacy in India and globally.

Cross-Listed as: ASCL 54.11
Distributive: Dist:INT or SOC; WCult:NW

HIST 5.13 - Modern Latin America

Instructor: Meléndez-Badillo

This course presents the histories of Latin American and Caribbean societies, peoples, and nations from the onset of the Haitian Revolution in 1791 to the present. By placing Haiti at the center of the Age of Revolutions, this course also locates the Caribbean region within the Latin American context. We will study the region’s nation-building processes using an intersectional lens to explore how different people interpreted them through their own gendered, classed, and racialized identities.

Cross-Listed as: LACS 01.10
Distributive: Dist:SOC; WCult:NW

HIST 5.14 - The Americas from Invasion to Independence

Rather than following a narrative across three centuries, this course will use a thematic approach to explore how European empires were conceived, built, and challenged in the Americas. We will discuss how Europeans conceptualized their power, what they hoped they might get out of it, and how they sought to manage people and trade once they had established flourishing businesses and societies. Were their motives economic, religious, or political? Were they responding primarily to events in Europe, or were colonists and officials merely adapting pragmatically to the new environments and people they encountered? Crucially, we will also consider the imposition of empire from the perspectives of the ordinary people who negotiated it on the ground – Native Americans, European colonists, sailors, merchants, and the enslaved. How did they exploit or reject the grander schemes of their aspiring rulers? Finally, we will consider what legacies this complex imperial past has left for contemporary societies across the hemisphere. This course is not open to students who received credit for HIST 9.01 prior to Fall 2021.

Distributive: Dist:INT or SOC; WCult:W

HIST 7 - First-Year Seminars in History

Instructor: Varies

HIST 8 - Body Parts, Body Wholes: An Introduction to the Comparative History of Medicine

Instructor: Suh

This course examines the possibilities and problems of comparing medicine across time and region. We will begin by considering divergent conceptions of the body in Chinese and Greek antiquity before moving on to the transformation of the healing traditions and the advance of modern biomedicine since 1800. Instead of imposing "holism" or "reductionism" on medical traditions, this course encourages students to view past expressions of medicine as a means of analyzing our own self here and now.

Distributive: Dist:INT or SOC; WCult:NW

HIST 8.02 - The Making of the Modern World Economy

Instructor: Link

This course introduces students to major economic developments of the last two centuries in global perspective. It addresses themes such as the Industrial Revolution and the “Great Divergence;” the political economy of imperialism; the economics of war; the transformation of the world financial system; the economics of development; and the roots of the crisis of 2007/8. Students can expect to acquire a historically founded understanding of the global economy of today.

Distributive: Dist:INT or SOC; WCult:W

HIST 8.03 - Happiness: A History

The course aims to introduce students to a range of perspectives on human happiness, individual and collective, past and present. The course will explore happiness in different religious and wisdom traditions, while charting its emergence since the 18th century as a basic human expectation and even entitlement. The course draws on a wide range of disciplines, including history, philosophy, religion, literary studies, contemporary psychology, economics, and social science.

Distributive: Dist:TMV; WCult:W

HIST 8.04 - History of Sexuality in America

Instructor: Moreton

How have historical processes produced distinct sexual practices and identities over time? This course engages 300 years of a history that often evaded the historical record or was deliberately purged from it and asks how more traditional topics of U.S. historical inquiry—immigration, citizenship, economic organization, intellectual and artistic production, racialization, formal politics, law, religious
practice—can yield new insights when sexual history is included as a legitimate dimension of analysis.

Cross-Listed as: WGSS 26.03
Distributive: Dist: SOC; WCult: W

**HIST 8.05 - The International History of Human Rights**

In this course, students will study the history of human rights in the modern era, tracing the idea of the “Rights of Man” from the time of the Enlightenment; the uneasy coexistence of democracy and slavery; 19th century humanitarian movements, including abolitionism; the internationalization of humanitarianism and the Red Cross; the socialist challenge to “liberal” human rights; and the development of the international human rights movement per se since World War II.

Distributive: Dist: INT or SOC; WCult: W

**HIST 8.06 - Food History**

Instructor: Garcia

We will look at issues of food production and consumption, and how our relationship to food contributes to the political and social structures that we live with. Our approach will be historical and pay special attention to the ways in which our production and consumption of food has been shaped by the movement of people over the last century. The readings explore how food creates ways for people to form bonds of belonging while also creating bonds of control and regimes of inequality.

Cross-Listed as: LATS 008
Distributive: Dist: SOC 008

**HIST 8.07 - The History of Equality**

This course will examine key shifts in the understanding and deployment of notions of “equality,” including moral, legal, political, social, racial, and gender equality. Primarily a course of intellectual history with a focus on European and American sources and texts, it will nevertheless encourage the consideration of non-western perspectives and will draw on relevant literature in other disciplines, including anthropology, psychology, and economics.

Distributive: Dist: INT or SOC; WCult: W

**HIST 8.08 - Horse History**

Instructor: Crossley

The use of the horse in war and transport coincides with the emergence of written history, and the end of the use of the horse in war and transport coincides with the transition to the age of nuclear weapons and electronic communications. In between, the horse has been essential to global processes of agricultural and industrial development, urbanization, exploration and conquest. In many societies horses have also been associated with the fundamentals of social stratification and gender dichotomies. For good reason, the horse as a representation has also taken on profound cultural and religious roles.

Distributive: Dist: SOC; WCult: CI

**HIST 9 - History Workshop: Histories of Inequalities**

This class sequence explores the historical development, consequences, and attempts to redress various forms of inequality, particularly as related to race, ethnicity, gender, and/or sexuality. These classes examine diverse arrays of historical and scholarly voices to rethink existing historical narratives and explore the process of creating historical knowledge. These discussion-based classes emphasize active learning and engagement, student reflection, and the development of critical thinking, reading, and writing skills.

**HIST 9.01 - The Americas from Invasion to Independence**

The course explores the history of the Americas as space of conflict, colonialism, and political and economic change over three centuries from the arrival of Europeans to the revolutions that separated new American nations from European control. Using a thematic approach, the course will compare areas of the hemisphere and rival European imperial projects, while also identifying critical connections and interdependencies across the Americas. Students will be introduced to key questions in early American history and also to the analysis of primary and secondary sources through lectures and small discussion groups.

Distributive: Dist: INT or SOC; WCult: W

**HIST 9.03 - The Global Thirties: Economics and Politics**

This course provides an overview of the global history of the Great Depression of the 1930s. The course addresses themes such as the international economic order of the 1920s, the economic causes of the Depression, the political responses to the crisis, the rise of economic planning, and the legacy of the 1930s in post-war development states and economic thinking. Students will understand why the Depression influences economic theory and policymaking to this day.

Distributive: Dist: INT or SOC; WCult: W

**HIST 9.04 - The Intellectual History of Capitalism**

Since its inception capitalism has not only been an economic endeavor but also an intellectual challenge. Critics and boosters of capitalism have debated questions such as these: Is capitalism natural? Is capitalism equitable, or should it be? Does capitalism require a specific type of
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society and politics? This reading-intensive course introduces students to key texts about capitalism since the mid-19th century. Authors covered include Marx, Mill, Veblen, Keynes, Hayek, Polyani, Friedman, Foucault, and Piketty.

Distributive: Dist:TMV; WCult:W

**HIST 10 - What is History?**

The discipline of History is about much more than names, dates, and events. It is actually a realm of robust argument, changing interpretations, and vivid imagination. This brand-new, team-taught course explores different genres of professional historical research and writing (e.g. biography, political history, cultural history). Through a dynamic mix of lectures and small-group discussions, both History majors and non-majors will gain a new appreciation of the historian’s craft. No prerequisites; first-year students welcome.

Distributive: Dist:SOC; WCult:W

**HIST 10.02 - Archival Research and the Production of History**

Instructor: Sackeyfio-Lenoch

The target constituency of this summer-term course will be those students admitted to History’s London-based FSP who have framed an archive-based project (as most will do). Other students who wish to engage in a high-level exploration of archival-based historical knowledge are welcome to enroll; such students will pursue work for Unit Three of the class of their own choosing, in consultation with the instructor. The term consists of a three-part hybrid: an initial unit on the “epistemology of the archive” is followed by a unit on a select number of classic archival “finds.” The course concludes with practical workshop format, intended to enhance a student’s prospects for executing a project for 97.10 in London.

Distributive: Dist:SOC; WCult:W

**HIST 10.03 - The Dartmouth Vietnam Project: Learning Oral History in a Digital Age**

This course explores the theory and practice of oral history. Oral history interviews are collaborations between interviewers and narrators (interviewees). Such interviews are used to explore both the lives of individuals and the histories of communities. In some cases, oral history provides a way to access voices and perspectives that are marginalized or absent from the materials contained in conventional archives. The use of oral history interviews as primary sources raises complex questions about narrative, subjectivity, memory, and historical truth. In this course, students will be trained to conduct an interview for the Dartmouth Vietnam Project, an ongoing oral history project that records testimony from community members about their memories of the Vietnam War and its impact on their lives.

Distributive: Dist:INT or SOC

**HIST 10.04 - Dartmouth Black Lives**

Instructor: Rabig and Winston

This course equips students with research methods, critical frameworks, and interview skills to document the lives of Black alumni and contribute to an archive of oral sources on Black history at Dartmouth. Students will be immersed in the theory and practice of oral history, a field in which historians conduct collaborative interviews with narrators to create new records of past events.

Cross-Listed as: AAAS 20.01

Distributive: Dist:SOC; WCult:CI

**HIST 11 - The Age of the American Revolution**

Instructor: Musselwhite

This course begins with an examination of relations between England and its American Colonies in the middle of the eighteenth century. It deals with the collapse of British authority in America, emphasizing the social and intellectual sources of rebellion. Treatment of the war years focuses more on the problem of political and economic adjustment than on military history. The final topic covered is the adoption of a federal Constitution.

Distributive: Dist:SOC; WCult:W

**HIST 12 - The Civil War Era: From Rebellion to Revolution**

Instructor: Bonner

History 12 explores the most revolutionary and consequential period of U.S. History. It does so by pairing a close and critical reading of primary texts with a survey of leading scholarly interpretations. Across the term, we will also consider how the legacy of the American Civil War still looms large in contemporary American life. The 1860s and 1870s provides an indispensable framework for urgent disputes about the authority and role of government and the persistent inequities of anti-Black racism. Students can expect the course to equip them to track such discussions; a term of sustained historical inquiry will, indeed, allow them to make their own meaningful contributions.

Distributive: Dist:SOC; WCult:W

**HIST 13 - Planters, Pirates, and Puritans: 17th-Century English America**

This course explores the many different forms of English colonialism in America. It considers their differences and similarities. It probes the ways they were shaped by shifting ideas back in Europe, the requirements of different American environments, and the influence of indigenous and enslaved people. It grapples with English America not as a precursor to the United States, but as a place where
new ideas were tested and traditional hierarchies were broken down and reformed.

Distributive: Dist:SOC; WCult:W

HIST 14 - The Invasion of America: American Indian History, Pre-Contact to 1800
Instructor: Calloway

This course surveys the history of the American Indians from contact with Europeans to c. 1800. It provides an overview of the major themes and trends in Indian history, supplemented by case studies from a number of regions and readings that illuminate particular issues. The overall context of the course is the conflict generated by the colonial drive of European nations and the U.S. and their citizens, but the primary focus is the historical experience of Indian peoples and their struggles to retain their cultures and autonomy while adapting to great changes in the conditions of their lives. Open to all classes.

Cross-Listed as: NAS 14
Distributive: Dist:SOC; WCult:NW

HIST 15 - American Indians and American Expansion: 1800 to 1924
Instructor: Calloway

This course surveys Native American history from c. 1800 to the Indian Citizenship Act in 1924. The overall context of the course is the expansion of the U.S. and the Indian policies adopted by the U.S. government, but the primary focus is the historical experience of Indian peoples and their struggles to retain their cultures and autonomy while adapting to great changes in the conditions of their lives. Open to all classes.

Cross-Listed as: NAS 015
Distributive: Dist:SOC; WCult:NW

HIST 16 - Race and Slavery in US History
Instructor: Musselwhite

This course deals with the African heritage, origins of white racial attitudes toward blacks, the slave system in colonial and ante-bellum America, and free Black society in North America. Specific emphasis will be placed on the Afro-American experience and on the relationship between blacks and whites in early American society. Open to all classes.

Cross-Listed as: AAAS 12
Distributive: Dist:SOC; WCult:W

HIST 16.02 - Plantations and Slavery in the Americas
Instructor: Musselwhite

The plantation evolved in the Americas as a place for European exploitation of colonial environments and enslaved laborers. It played a foundational role in shaping settler colonialism, racial slavery, and capitalism across the Americas and it has also framed debates around the legacies of slavery and colonial appropriation up to the present. This course explores the evolution of the plantation as an institution and an ideology of racialized exploitation, but also traces enslaved peoples’ resistance to the plantation and their construction of rival geographies and institutions.

Cross-Listed as: AAAS 60.01
Distributive: Dist:SOC; WCult:W

HIST 17 - Black America since the Civil War
Instructor: Tucker-Price

This course is a continuation of HIST 16. Among the topics to be discussed are Black Reconstruction, segregation and disfranchisement, migration, nationalism, Blacks and the New Deal, the impact of war on Blacks, and the 1960s. Open to all classes.

Cross-Listed as: AAAS 13
Distributive: Dist:SOC; WCult:W

HIST 19 - United States Political History in the Twentieth Century
Instructor: Orleck

This course defines politics broadly to include grass roots political activism, and dissident political philosophy, as well as governmental action and change. The course will trace the evolving relationship between the federal government and American citizens from the end of Reconstruction through 1984. Topics will include Black political participation in Reconstruction; immigrant, labor, and woman suffrage activism; the post-World War I Red Scare and the decline of Progressivism; domestic turbulence and the New Deal state; the Cold War and the decline of New Deal liberalism; national security agencies and covert action; the Civil Rights movement and the Great Society; Vietnam and the youth rebellion of the 1960s; Watergate and the unveiling of the imperial presidency; the rise of the New Right, the revival of the national security state, and the dismantling of the social welfare state.

Distributive: Dist:SOC; WCult:W

HIST 20 - American Thought and Culture to 1865
Instructor: Butler

This course examines major ideas, figures, and movements from the establishment of the colonies of British America to the nation’s fragmentation in the Civil War. There is an emphasis upon Puritanism, Enlightenment, and Romanticism as dominant patterns of thought. The course also explores ante-bellum reform as a case study. Topics to be considered include the migration of ideas from Europe and their subsequent modification in America; the conflict
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between ideals and actualities in social, political, and cultural life; and the conceptual significance of equality and difference in the construction of American subjectivities. Open to all classes.

Distributive: Dist:TMV; WCult:W

HIST 21 - Modern American Thought and Culture
This course examines leading thinkers, writers, artists, and reformers as a way of understanding American intellectual and cultural history. Some of the issues explored include: the impact of Darwinism; social science and the modern university; responses to industrialization; the tension between self and society; debates over democracy; the challenge of civil rights and feminism; and recent debates over multiculturalism. Almost all of the reading will be drawn from primary sources (including material by Mark Twain, Charlotte Perkins Gilman, William James, Oliver Wendell Holmes, Jr., W.E.B. DuBois, John Dewey; Langston Hughes; Lionel Trilling; Martin Luther King, Jr.; and Malcolm X). Open to all classes.

Distributive: Dist:TMV; WCult:W

HIST 22 - Civil Rights in the United States in the 20th Century
This course examines movements for civil rights, broadly defined, in the 20th-century US. Students explore concepts of American citizenship, considering struggles for political inclusion and efforts to participate fully in the nation's social and cultural life. We focus on women's and gay rights and the struggles of African Americans, Latinos, Native Americans and Asians, examining how these and other groups have envisioned and pursued full American citizenship.

Cross-Listed as: AAAS 80.06

Distributive: Dist:SOC; WCult:CI

HIST 23 - American History since 1980
Instructor: Rabig
This course examines American history during the era of rapid globalization. It focuses on the continued ideological power of the American Dream and the diminishing opportunity to actually live that Dream; conflicts between groups struggling to achieve genuine equality for all men and women and other groups determined to maintain traditional hierarchies based on class, race, and gender; and the contested meaning of the actions of the world's sole military superpower. Open to sophomores, juniors, and seniors.

Distributive: Dist:SOC; WCult:W

HIST 24 - The Cold War and American Life
This course will examine the diverse ways that the Cold War changed how Americans lived, understood, and experienced their lives at home and abroad from 1945 – 1968. It will explore issues like the rise of the national security state; the impact of the Cold War on thinking about race, gender and sexuality; Cold War consumerism; nuclear cultures; the Cold War and higher education; conflicts in Korea, Cuba, and Vietnam; and new concepts of American internationalism. Open to all classes.

Distributive: Dist:TMV; WCult:W

HIST 25.01 - The United States and the World from the Colonial Era to 1865
Instructor: J. Miller
This course explores America’s interactions with the world and its emergence as a global imperial power in the decades after the end of the U.S. Civil War. Key topics include the conquest of the Great Plains, the War of 1898, U.S. colonialism in the Philippines, Wilsonianism and the U.S. embrace of “total war” during World War II.

Distributive: Dist:INT or SOC; WCult:W

HIST 27 - Gender and Power in American History from the Colonial Period to the Civil War
Instructor: E. Miller
This course examines the conflict which Americans call “The Vietnam War” as a major event in the 20th century histories of both the United States and Vietnam. In addition to exploring the key decisions made by U.S. and Vietnamese leaders, students will also learn about the experiences of ordinary soldiers and civilians. This course incorporates multiple American and Vietnamese sources and perspectives, and also investigates multiple explanations of the war's origins and outcome. Open to all classes.

Cross-Listed as: ASCL 54.09

Distributive: Dist:INT or SOC; WCult:W
of gender in political thought and practice, the intersection of gender with categories of class and race; gender in the debate over slavery and the Civil War; and the rise and evolution of the woman's rights movement. Open to sophomores, juniors and seniors.

Cross-Listed as: WGST 23.01
Distributive: Dist: SOC; WCult: W

HIST 28 - American Women in the Twentieth Century
Instructor: Orleck

This course is a multi-cultural multi-media history of American women from the Civil War to the present. We will discuss race and class tensions in the woman suffrage movement; women, labor and radicalism from the 1910s through the 1940s; civil rights, welfare rights, the rebirth of feminism in the 1960s and 1970s, and backlash politics from the 1950s to the 1980s. Open to all classes.

Cross-Listed as: WGST 23.02
Distributive: Dist: SOC; WCult: CI

HIST 29 - Women and American Radicalism Left and Right
Instructor: Orleck

This course will trace the involvement of U.S. women in radical political movements from the mid-nineteenth century to the present including: Abolitionism; Anti-lynching; Socialist Trade Unionism; the Ku Klux Klan; the Communist Party; the National Welfare Rights Organization; the Civil Rights Movement; the New Left; the New Right; the direct-action wing of the anti-abortion movement; Earth First; and the neo-Nazi American Front. It will also examine the relationship between feminist ideologies and non-gender-specific radical political ideologies centered on race, class, and other social identifiers.

Cross-Listed as: WGSS 26.02
Distributive: Dist: SOC; WCult: CI

HIST 30 - The Black Sporting Experience
Instructor: Orleck

This course examines the historical and contemporary sporting experiences primarily of Black Americans. The decision to refer to this class as a “Black” experience is deliberate, as we will briefly interrogate how race and sports functions for the Black diaspora in the Caribbean, Latin America, and Europe. Despite brief examinations of the diaspora, this class uses sports history as a critical lens to understand American history.

Cross-Listed as: AAAS 023
Distributive: Dist: SOC; WCult: CI

HIST 31.01 - Latina/o Social Movements
Instructor: Garcia; Castro

People of Latin American descent (aka “Latina/os,” or the gender neutral, more inclusive “Latinx”) have been at the forefront of a variety of social movements over the last century. In some cases, they have insinuated themselves into existing movements, while in others, they have built movements that uniquely speak to their concerns as soldiers and anti-war activists, undocumented residents, racial minorities, farm workers and/or perceived impediments to economic progress. Always, they have asserted their rights to protest. Frequently, they have taken these actions regardless of their citizenship status. This class charts the growth of these movements and anticipates the future of social protest and Latinx politics in the United States.

Cross-Listed as: LATS 020
Distributive: Dist: SOC; WCult: W

HIST 31.02 - Migrant Nation: Immigration and Racialization in the Making of the United States
Instructor: Moreton

Current public discussions of immigration are deeply rooted in centuries-long conversations about who is allowed into the country and what it means to be an American. Drawing explicitly on the collective work of the “hashtag syllabus” movement, this course seeks to contextualize current debates over immigration reform, integration, and citizenship by considering migration from multiple perspectives—not just Ellis Island, but the Rio Bravo, Angel Island, Congo Square, and the Spirit Lake Dakota Indian Reservation.

Cross-Listed as: LACS 40.10
Distributive: Dist: SOC; WCult: CI

HIST 32 - The Life, Death and Rebirth of Great American Cities
Instructor: Orleck

This course examines key moments in the histories of four diverse American cities: New York, New Orleans, Las Vegas and Los Angeles: two old and two new cities, two cities that grew organically over centuries, with deep resources and deep problems, and two glitzy cities that grew too rapidly, booming and crashing over the half century after World War II. Students will research, write and present urban history projects on a city of their choosing.

Distributive: Dist: SOC; WCult: CI

HIST 33.01 - Walmart to Wall Street: Excavating American Capitalism since 1970
Instructor: Moreton

This course takes on fundamental transformations in economic life from the end of the Bretton Woods system to the crisis of 2008. Rather than a chronological survey, it is
an historical excavation of three key trends in the period: technological innovation; globalization; and financialization. Readings and lectures will contextualize each of these developments in the specific history of the post-Bretton Woods United States, and then trace their longer intellectual, political, and social origins.

Distributive: Dist:SOC; WCult:W

**HIST 34 - Building America: An Architectural and Social History**

This course draws upon recent scholarship in anthropology, archaeology, material culture, social history and architectural history in its review of five centuries of American architecture. Course lectures not only emphasize America's principal architects and their designs, but also summarize the social and cultural forces that shaped the country's built landscape.

Cross-Listed as: ARTH 47.01
Distributive: Dist:ART; WCult:W

**HIST 36 - Health Care in American Society: History and Current Issues**

Instructor: Koop

This course is designed to provide students with a basic understanding of critical issues in health care through the study of the historical development of the United States health care system. The course illuminates the influence of historical forces and cultural factors on the delivery of health care and on the discourse about health care reform in American history. By studying the components and relationships within the American health care system, students are enabled to acquire an understanding of the relationship between American history and the health care system, and also enabled to obtain a working contextual knowledge of the current problems of the American health care system and their proposed solutions. Each topic is presented from an historical perspective. Through an historical investigation of health, disease, and medicine students should be able to understand and discuss the changing organization of health care delivery in American history, the changing methods of financing of health care, the distinctive role of technology in health care, primary ethical issues in health care, comparative features of health care systems of other cultures, the historical changes in public health precepts, images of health care in popular culture, and the process of health care reform in American history. Open to all classes.

Distributive: Dist:SOC; WCult:W

**HIST 36.02 - Epidemics in History**

The COVID-19 outbreak has caused a profound disruption of life in the United States and around the world. For virtually everyone alive today, the epidemic is an unprecedented and unexpected event. Yet over the last three millennia, epidemics have been one of the foremost drivers of human history. Infectious diseases have affected the fate of great civilizations and empires, reshaped the economic fundamentals of large societies and influenced art and culture in innumerable profound ways. This course is an interdisciplinary introduction to some of the most dramatic epidemics in history and the consequences they had on societies around the world.

Cross-Listed as: GOVT 40.27
Distributive: Dist:INT or SOC

**HIST 37 - The Black Radical Tradition in America**

This course introduces major currents in the history of black radical thought, with a particular focus on the U.S. after emancipation. This class encourages students to define and evaluate radicalism in the shifting contexts of various liberation struggles. By exploring dissenting visions of social organization and alternative definitions of citizenship and freedom as expressed through nonviolence, armed rebellion, black nationalism, Pan Africanism, socialism, communism, anticolonialism, feminism, queer theory and integrationism, students will confront the meaning of the intersection of race, gender, class and sexuality in social movements.

Cross-Listed as: AAS 024
Distributive: Dist:SOC; WCult:W

**HIST 38.01 - First Americans and the First President: The Indian World of George Washington**

Instructor: Calloway

George Washington’s life intersected constantly with Native America. He surveyed and speculated in Indian lands. He fought Indians in three wars, made Indian treaties, and built a nation on Indian land. His conduct of Indian affairs shaped the authority of the president in war and diplomacy. By restoring Indians to the life of the first president, this class will restore their role in shaping the new nation and counter their erasure from America’s historical memory.

Cross-Listed as: NAS 55
Distributive: Dist:SOC; WCult:NW

**HIST 38.02 - Lewis and Clark in Indian Country**

Instructor: Calloway

In 1804-06, Meriwether Lewis and William Clark completed a remarkable odyssey, from St. Louis to the Pacific, and back. They wrote more than one million words, describing the country, and paid particular attention to the Indian nations they met. This class will use the abridged edition of the journals to examine the context, experiences, and repercussions of an expedition that initiated journeys of discovery for both the young United States and the Native peoples of the American West.
Cross-Listed as: NAS 038
Distributive: Dist:SOC; WCult:W

**HIST 38.03 - Pan-Indianism in American History**
Instructor: Crandall

This course provides the history of pan-Indian movements in Indigenous North America from 1680 to the present. In the current era of self-determination, tribal sovereignty, and Indigenous nationhood, we perhaps sometimes forget that pan-Indian movements have played a significant part in the history and experiences of Native peoples of North America. We will explore the many ways in which Native peoples have aligned themselves with other tribal nations religious, military, educational, economic, and environmental movements, in the process cutting across linguistic, cultural, religious, and national lines. Indigenous North Americans have deployed pan-Indianism as a strategy to confront both international such as colonialism and the struggles for control of contested Borderlands, and more regional and localized forces. Taken in its entirety, understanding pan-Indianism is essential to understanding the history of Native North America.

Cross-Listed as: NAS 051
Distributive: Dist:SOC; WCult:NW

**HIST 38.04 - Indigenous North American Borderlands**
Instructor: Crandall

This course focuses on the histories of Indigenous peoples in the borderlands of North America across time in both geographic and thematic contexts. Viewing Native America as an incredibly complex series of borderlands is a useful interpretive model for better understanding the history of Native peoples. Lectures, readings, and class discussion will focus on elements such as cultural contact, conquest and colonialism, missionization, citizenship, gender, and nation. While exploring these various themes, we will touch on some familiar territory such as frontiers and middle grounds, but we will also question our own personal, and often, region-based expertise in order to unpack a more nuanced view of Indigenous borderlands and their significance.

Cross-Listed as: NAS 056
Distributive: Dist:INT or SOC; WCult:NW

**HIST 39 - Twentieth Century Native American History**
Serving as the final course in a three-quarter survey of Native American history, this class reviews Native history from the late 19th century to the present, focusing on the interplay between large institutions and structures – such as federal and state governments, or the US legal system – and the lived, local experience of tribal communities. The major themes followed throughout the course of the term include: historical narrative (and what it justifies or explains), place and space (how local and national entities define territories), and indigeneity (indigenous identity).

Cross-Listed as: NAS 016
Distributive: Dist:INT or SOC; WCult:W

**HIST 40.01 - The Global Thirties: Economics and Politics**
Instructor: Link

This course provides an overview of the global history of the Great Depression of the 1930s. The course addresses themes such as the international economic order of the 1920s, the economic causes of the Depression, the political responses to the crisis, the rise of economic planning, and the legacy of the 1930s in post-war development states and economic thinking. Students will understand why the Depression influences economic theory and policymaking to this day.

Distributive: Dist:INT or SOC; WCult:W

**HIST 40.02 - The Intellectual History of Capitalism**
Instructor: Link

Since its inception capitalism has not only been an economic endeavor but also an intellectual challenge. Critics and boosters of capitalism have debated questions such as these: Is capitalism natural? Is capitalism equitable, or should it be? Does capitalism require a specific type of society and politics? This reading-intensive course introduces students to key texts about capitalism since the mid-19th century. Authors covered include Marx, Mill, Veblen, Keynes, Hayek, Polyani, Friedman, Foucault, and Piketty.

Distributive: Dist:TMV; WCult:W

**HIST 41.01 - Empires and Nations in Modern European History**
Instructor: Petruccelli

The history of Europe has generally been told through the stories of its constituent nations. Yet most Europeans over the past three centuries lived in empires. This course will place empire at the center of the history of modern Europe, focusing both on land empires within Europe and the overseas empire, and view the nation as a challenger whose ultimate victory was – and is – far from certain. Beginning with the emergence of modern national ideas in the late 18th century, we will trace the complex relationship between European nation-states and empires until the present day. Topics covered will include the consolidation of European nation-states in the 19th century, overseas imperial expansion, multinational land empires, the two world wars, decolonization, and the question of American and Soviet empire in the 20th century.

Distributive: Dist:SOC; WCult:W
HIST 41.02 - Race, Gender, & Revolution in the Atlantic World
Instructor: Voekel
This course examines how the events and intellectual production of the Haitian Revolution and decolonization struggles in the Spanish Empire shook the Atlantic World and forced a reconsideration of political categories such as liberty, tyranny, citizenship, rights, and the relationship of race and gender to all of these concepts. The Enlightenment influenced Latin American and Caribbean revolutionaries, but these rebel intellectuals in turn challenged some of the Enlightenment’s fundamental tenets, ushering in new polities with radical notions of citizenship and belonging.
Cross-Listed as: AAAS 62.75
Distributive: Dist: SOC; WCult: NW

HIST 42 - Gender and European Society from Antiquity to the Reformation
Instructor: Simons
This course examines the roles of women and men in Western Europe from late Antiquity to the Reformation period. Emphasis will be placed on the intellectual and social strictures that had a long-term effect on the concept and role of gender in European society. Topics included are biological and mythological foundations of gender concepts; attitudes toward the body and sex in pre-Christian and Christian culture; sin and ecclesiastical legislation on sex and marriage; family life and education; the individual and kinship; heresy and charismatic religious movements; and the impact of social-economic development on gender in professional life. We will discuss the textual and visual sources for our inquiry, as well as the changing contemporary views on gender roles in pre-industrial Europe. Open to sophomores, juniors and seniors.
Cross-Listed as: WGSS 22.01
Distributive: Dist: TMV; WCult: CI

HIST 43.01 - European Intellectual and Cultural History, 400-1300
Instructor: Meehan
A course on the intellectual and cultural origins of European civilization, from the fall of Rome to the advent of the Renaissance. After a review of the Judeo-Christian, Greco-Roman, Celtic, and Germanic components of medieval culture, we will examine the rise of the Christian Church and its impact on values and behavior of Europeans during the middle ages. Of special interest will be the relationship between medieval thinkers and the society in which they lived, the role of ritual, ceremony, and magic, and the persistence of heresy. Along with the products of high culture associated with such intellectuals as Augustine, Peter Abelard, Hildegard of Bingen, and Thomas Aquinas, we will thus review the fundamental values of medieval society at large and explore ways in which popular and elite culture converged or contrasted. Open to all classes.
Distributive: Dist: TMV; WCult: W

HIST 43.02 - European Intellectual and Cultural History, 1400-1800
Instructor: McMahon
This course will introduce students to major developments in European culture and thought from the 14th-18th centuries, paying particular attention to the Renaissance, the Reformation, the Scientific Revolution, and the Enlightenment. Substantial class time will be devoted to group discussion of primary texts with the aim of fostering each student’s ability to analyze and contextualize works in the Western intellectual tradition. Key authors include Machiavelli, Erasmus, Calvin, Luther, Galileo, Hobbes, Locke, and Rousseau.
Distributive: Dist: TMV; WCult: W

HIST 43.03 - European Intellectual and Cultural History, 1800-present
Instructor: Greenberg
Through a close reading and discussion of Europe's most influential thinkers from the advent of the Enlightenment to the end of the twentieth century, this course will explore the key concepts that shaped and reflected modern European experiences. We will discuss how European intellectuals of diverse background—social scientists and philosophers, theologians and political theorists—fiercely debated the causes and solutions to major European phenomena, including technological revolution, total war, social upheaval, secularization, and terrorism.
Distributive: Dist: TMV; WCult: W

HIST 44 - Medieval France, 400-1494
The course traces the medieval foundations of the French nation, from the Roman Era to the end of the fifteenth century, with emphasis on institutional, social, and cultural development. Topics include: the Merovingian origins of 'France,' the construction and impact of feudal relationships, the emergence of French vernacular culture, regional diversity within centralized rule, and the formation of a French national identity. In addition we will examine how French medieval history became a testing-ground for innovative research on the Middle Ages, and to what extent these views have changed our concept of medieval France in the last decades. Open to all classes.
Distributive: Dist: SOC; WCult: W
HIST 44.02 - Arts of Power, from Augustus to the Sun King

Instructor: Gaposchkin

This course explores the political systems and ideologies of the West through art, architecture, ceremony, patronage, and representation. Political systems and ideologies always find their form in visual and ceremonial representation as mechanisms of the legitimization of power. This course will follow the Western tradition, starting with the formation of the Roman Empire under Augustus Caesar and ending with the rise of Absolutism under Louis XIV and the building of the palace of Versailles. It will explore the development of political and religious institutions through the representation of their ideologies. The course will be structured according to the following units: Empire, Monarchy, The church and the papacy, the Italian Republics and City States, Reform, Absolutism and Divine Kingship.

Distributive: Dist:SOC; WCult:W

HIST 45 - Early Modern Europe (1300-1650)

A study of Western Europe's transition from medieval to modern times, tracing the impact of new forces on traditional structures. Among the topics covered are Italian culture and society in the 14th-15th centuries; the concept of the Renaissance; intellectual and religious themes of the Reformation; the emergence of the basic forms of the modern state; developments in warfare and international relations; the political and ideological polarization of Europe after Luther; the 'general crisis' of the mid-17th century. Open to sophomores, juniors, and seniors.

Distributive: Dist:SOC; WCult:W

HIST 46 - Spain in the Golden Age

The course deals with the unification of Spain under Ferdinand and Isabella, its rise to world primacy in the sixteenth century, and its decline in the seventeenth. Among topics examined are the development of a system of imperial government, the impact on Spain of colonial empire, the problems of multi-cultural society within the Iberian peninsula, the struggle against heresy, and the political challenges of the great European powers. Open to sophomores, juniors, and seniors.

Distributive: Dist:SOC; WCult:W

HIST 47 - The French Revolution and Napoleon

Instructor: McMahon

The course studies the French Revolution and its implications for Europe and the world. It considers the social, political and ideological causes of the Revolution in 1789 and then pays close attention to the successive stages of revolution from the experiment with constitutional monarchy to the radical republic and the Terror to Napoleon's popular dictatorship. The revolutionary wars, the development of democratic and nationalist ideology and their spread beyond France and beyond Europe, and also beyond elite men to peasants, city workers, Blacks and women are important themes. Open to sophomores, juniors, and seniors.

Distributive: Dist:SOC; WCult:W

HIST 49 - Early Modern England, 1485-1780

Instructor: Estabrook

This course explores the relationships among economic, social, cultural and political developments in England during the Tudor, Stuart, and Hanoverian periods. Topics for discussion include: family and gender; village and city life; religious reformation and the reformation of government; the Elizabethan renaissance; responses to poverty, crime, and nonconformity; the development of political parties; the British enlightenment; commercialization and consumerism; the interaction of 'plebeians' and 'patricians'; rebellions and civil wars; and radicalism, conservatism, and imperialism. Open to all classes.

Distributive: Dist:SOC; WCult:W

HIST 50 - Modern Britain, 1780 to Present

Instructor: Estabrook

This course explores the relationships among economic, social, cultural and political developments in Britain from the modern industrial revolution to Thatcherism and New Labour. Topics for discussion include: industrialization and its effects; Liberals, Conservatives, and Parliamentary politics; enduring Victorian attitudes about class, gender, sexuality, ethnicity, and race; the rise of Labour politics; suffragism; the Irish question; the impact of imperialism and world wars on British subjects; and responses to Britain's postwar decline and post-colonial multiculturalism. Open to all classes.

Distributive: Dist:SOC; WCult:W

HIST 52 - Modern Germany: 1871-1990

Instructor: Greenberg

This course will explore the dramatic transformations that permeated German culture, politics, and society from 1871 to the end of the Cold War. We will discuss the diverse trends, visions and anxieties that shaped German life through the birth of the German state, industrialization and expansion, World War I, the creation of the Weimar Republic, the rise of Nazism, total War and genocide, and the country's division between Communist dictatorship and Western democracy during the Cold War. Open to all classes.

Distributive: Dist:SOC; WCult:W
HIST 53 - World War II: Ideology, Experience, Legacy
Instructor: Greenberg
This course will explore the origins, nature, and legacies of the most dramatic war in modern times. Rather than focusing only on the military aspect, we will discuss the different ideological, cultural, political, and social factors that intersected in this monumental conflict. Students will learn about the worldviews that led to the war; the experiences of soldiers, policymakers, and ordinary people at the home fronts; and the institutions and cultures that emerged at the war's aftermath. Open to all classes.
Distributive: Dist:INT or SOC

HIST 54 - The Russian Empire
After a review of Kievan and Muscovite antecedents, the course surveys the history of Russia from the Time of Troubles to the beginning of the twentieth century. Special emphasis will be placed on the role of the Russian autocrat, on the institution of serfdom, and the development of the 19th century intelligentsia. Intended to precede, but not prerequisite to, HIST 55. Open to sophomores, juniors, and seniors.
Distributive: Dist:INT or SOC

HIST 55 - The Russian Revolution
The Russian Revolution of 1917 and the Bolshevik seizure of power proved to be among the most important events of the 20th century, and they had profound implications for world history up until the current day. In this course, students will examine the causes and consequences of these momentous occurrences and grapple with a set of complex and intricate historical questions that still divide historians. We will begin by examining how in the late 19th century far-reaching social changes & external challenges confronted the 300 year-old Romanov dynasty, and how, ultimately, this dynasty was unable to adapt to the modern era. Students will learn about the multifarious political movements that emerged in opposition to the old regime, and about the so-called Revolution of 1905, which shook but did not overthrow the tsar.

Cross-Listed as: RUSS 50.02
Distributive: Dist:SOC; WCult:W

HIST 56 - Twentieth-Century Russia
An examination of major developments and problems in twentieth-century Russian history with particular attention to the consequences of the October Revolution, Leninism, civil war and its impact, politics and society during the New Economic Policy of the 1920s, the formation of the Stalinist system and its historical legacy, the Krushchev era, the Brezhnev years of “stagnation,” Gorbachev’s perestroika and the problems of transition to a law based on democratic and open market system of the Russian Federation, the successor state to the Soviet Union. Open to all classes.
Distributive: Dist:SOC; WCult:W

HIST 57 - Scientific Revolutions and Modern Society
An introduction to major revolutions in Western science since 1700, focusing on changing definitions of science; on political and religious implications of scientific theories; and on the effect of national contexts on scientific practice. Topics include Newton and Newtonianism in the 18th century, the Darwinian Revolution, Einstein and the birth of modern physics, and science under 'banners' in revolutionary France, Nazi Germany, and Soviet Russia. Open to all classes.
Distributive: Dist:TMV; WCult:W

HIST 61 - Britain and the Sea
Instructor: Estabrook
This course features the vital role of the sea in the history of the British Isles and its colonies, peoples, and diaspora from the earliest days of British seafaring exploration until our own time. It assesses the extent to which the sea served as an extensive nexus among various places and peoples rather than a vast barrier or boundary. With this in mind, it traces the dramatic arc of history during which Britain was transformed from a small cluster of insignificant islands on the margins of Europe into an important hub of global networks with profound social, economic, political and cultural influence. At the same time, the course considers the importance of the sea in bringing British subjects into closer contact with a wide variety of environments and peoples whose influences transformed British attitudes, aspirations, and practices at home and abroad. The course also explores how a dynamic relationship with the sea itself, as experienced by ordinary people of Britain and its global contacts, shaped how these people viewed themselves, their history, their surroundings, and the wider world.
Distributive: Dist:INT or SOC; WCult:W

HIST 62 - The First World War
The First World War was fought in Europe for the most part but it involved belligerents from every continent and had global effects, many of which bedevil our world today. This course introduces you to the vast subject of what the British still call The Great War, its causes, combat, homefronts and far-reaching consequences as well as to some of the unresolved questions that continue to propel our research. Open to all classes.
Distributive: Dist:SOC; WCult:W

HIST 63.01 - History of Recent Science and Technology
This course will consider selected case studies of scientific and technological work since 1960, using analytical tools
from science studies, historical sociology, philosophy of science and gender studies. Participants will read classic books deploying these tools, and then will research and present their own case studies on topics such as the development of the personal computer, invention of the "abortion pill" RU-486, or disposal of high level nuclear waste. Open to all classes.

Distributive: Dist:TMV; WCult:W

HIST 63.02 - Reading Artifacts: The Material Culture of Science
Emphasizing hands-on examination of artifacts in Dartmouth’s Collection of Historic Scientific Instruments, this class seeks to study history using 3-d rather than the usual 2-d textual sources. Topics include the rise of American science, science at Dartmouth, the role of experiment and demonstration in science, aesthetics and design of objects, and international trade in instruments. Students will create and curate an exhibition of artifacts from Dartmouth’s Collection. Open to all classes.

Distributive: Dist:TAS; WCult:W

HIST 64 - The Great War and the Transformation of Europe
Instructor: Petruccelli
The Great War and the Transformation of Europe explores how the First World War redefined warfare, destroyed empires, and profoundly altered the political, social, and cultural landscape of Europe. The course will analyze this crucial period in the development of Europe by examining political re-alignments, innovations in warfare, shifts in gender norms, developments in propaganda, and the birth of the Soviet Union and fascism.

Distributive: Dist:SOC; WCult:W

HIST 66 - History of Africa since 1800
Instructor: Sackeyfio-Lenoch
This course explores some of the major historical processes unfolding in Africa since 1800. Our analysis will focus on social and economic history as we examine Africa's integration into the international economy during the nineteenth century, the rise of new social classes, and the creation of the colonial and post-colonial state. Our primary case studies will be drawn from east, west and southern Africa to highlight both the similarities and differences of their historical development. Open to all classes.

Cross-Listed as: AAAS 15
Distributive: Dist:SOC; WCult:NW

HIST 67 - The History of Modern South Africa
Instructor: Sackeyfio-Lenoch
After an initial overview of colonialism in Africa, this course will concentrate on Southern Africa, with special emphasis on the historical development, effects, and implications of the racial situation in the Republic of South Africa. Readings will be drawn from primary and secondary materials and from works of fiction. Illustrative films will be shown, and some opportunity offered to compare the history of race relations in South Africa with that in other African countries and in the United States. Open to all classes.

Cross-Listed as: AAAS 46
Distributive: Dist:SOC; WCult:NW

HIST 69 - Islam in Africa
Instructor: Baum
This course aims to introduce students to the formation of Islam in the Maghrib, Saharan Africa, and Africa south of the desert. Assignments will address continuities with and differences from the practices of Muslims in other parts of the world while emphasizing the central role the religion has played in the unfolding of history in various parts of Africa. Topics covered will include conversion, popular religion and mysticism, cultural formations, and social organization. Open to all classes.

Cross-Listed as: REL 74.17 AAAS 53
Distributive: Dist:SOC; WCult:CI

HIST 70 - Gender and The Modern Middle East and North Africa
Instructor: Simon, Nikpour
In this course, we will study histories of the modern Middle East and North Africa and examine the ways that issues relating to gender and sexuality have affected the politics and social worlds of the region over the course of the past several centuries. This course begins with the medieval Islamicate Empires — Mughal, Safavid, and Ottoman — and then moves through the end of empire, the colonial era, the establishment of the nation state, and the emergence of modern cultural, political, and religious movements. In doing so, we will situate the histories and social worlds of the region in a global frame, asking how global political and economic transformations have affected the region. At the same time that we attend closely to these histories, we will also examine the ways in which the category of “woman” has been mobilized in popular and political discourses in the 18th-21th centuries, paying particular attention to how Muslim and Middle Eastern women have been represented in various political discourses, as well as how they have represented themselves. Through close readings of both primary sources (in translation) and secondary literature — including historiographical, theoretical, and literary texts as well as film and music— we will also tackle the questions, controversies, and stereotypes that have
animated debates in both scholarly and popular literature on such topics as the veil, feminism, revolution, human rights, LGBT issues, masculinity, and war.

Cross-Listed as: MES 19.04, WGSS 24.02
Distributive: Dist:SOC; WCult:NW

**HIST 70.02 - Modern Iran**
Instructor: Nikpour
This course examines the history of Iran from the early modern to the contemporary period. We will start in the era of the Islamicate empires then move through European imperialism, the rise of modern nationalism, the Constitutional Revolution (1905-1911), the formation of Pahlavi state institutions, the 1953 coup, the 1979 revolutionary movement, the establishment of the Islamic Republic, the Iran-Iraq War, and more. Students will learn to think through Iranian history in domestic and global contexts.

Cross-Listed as: MES 12.13
Distributive: Dist:SOC; WCult:NW

**HIST 71 - Conflict and Violence in the Middle East**
Instructor: Simon
This course will explore the major episodes that have transformed the Middle East since World War I through the prisms of conflict and violence. Challenging the discourses that characterize Middle Eastern societies as essentially stagnant, authoritarian and violent, this course will look critically at the complexities and dynamism of the conflicts with respect to their origins, the actors involved, and the key historical and political factors that have shaped them. Open to all classes.

Distributive: Dist:INT or SOC; WCult:NW

**HIST 72 - Late Imperial China in Global Context**
Instructor: Cheng
China's history, from the 3rd century BCE to the twentieth century, examined in the context of global developments in demography, economy, urbanization, technology, trade, and the arts. Open to sophomores, juniors, and seniors.

Cross-Listed as: ASCL 64.09
Distributive: Dist:SOC; WCult:NW

**HIST 72.02 - Nomad Rulers and Origins of the Modern World**
Between the twelfth and sixteenth centuries, government by rulers of nomadic origin produced similar changes in China, the Middle East, and Russia, and were later diffused by various means to Europe, South Asia and Southeast Asia. These changes included the promotion of vernacular languages, increasing influence of folk and dissident religions, and the rise of self-legitimizing rulership. These influences later challenged cultural and political authorities across Eurasia, laying the foundation for the modern world.

Distributive: Dist:INT; WCult:CI

**HIST 74 - Intellectual History of East Asia**
Instructor: Crossley
A comparative exploration of Chinese and Japanese thought, from the formation of Confucianism in the Warring States period to the confrontation between traditional thought and the imported ideologies of the twentieth centuries. In writing assignments, students may concentrate upon either Chinese or Japanese topics. Open to sophomores, juniors, and seniors.

Cross-Listed as: ASCL 64.13
Distributive: Dist:TMV; WCult:NW

**HIST 75 - Colonialism, Development, and the Environment in Africa and Asia**
Instructor: Haynes
This course examines the environmental history of Africa and Asia, focusing on the period of European colonialism and its aftermath. Topics include deforestation and desertification under colonial rule; imperialism and conservation; the consequences of environmental change for rural Africans and Asians; irrigation, big dams and transformations in water landscapes; the development of national parks and their impact on wildlife and humans; the environmentalism of the poor; urbanization and pollution; and global climate change in Africa and Asia. Open to all classes.

Cross-Listed as: AAAS 050; ENVS 45; ASCL 54.07
Distributive: Dist:INT or SOC; WCult:NW

**HIST 76 - From Colonial India to Post-Independence South Asia**
Instructor: Lhost, Haynes
This course examines the history of modern South Asia (focusing on the nations of India, Pakistan and Bangladesh) from the eighteenth century to the present. Key themes include: the character of British colonialism and its impact on Indian society; cultural change and the “invention” of new religious and caste identities; the Indian middle class; the emergence of the Indian national movement under Mahatma Gandhi; Partition in 1947 and Partition violence; and post-independence South Asian politics and economy.

Distributive: Dist:INT or SOC; WCult:NW

**HIST 77 - Imperialism in Modern East Asia**
Instructor: Mills; Ericson
An examination of Western and Japanese imperialism in East Asia from the Opium War to the Pacific War. Subjects to be treated include the imposition of unequal treaties, the "scramble for concessions" in China, the creation of Japan's formal and informal empires, and the rise and fall of the Greater East Asia Co-Prosperity Sphere. Open to all classes.

Cross-Listed as: ASCL 80.08  
Distributive: Dist:INT or SOC; WCult:NW

HIST 78 - Christianity in Korea  
Instructor: Suh  
This course examines Korean Christians' beliefs and practices, which have shaped and brought tensions to current socio-religious phenomena. Topics include the Korean origins of Christianity, the encounter between Catholicism and Neo-Confucianism in the eighteenth century, Protestant missionaries' role in medicine and education, the rise of nationalism and Christianity under Japanese colonialism, churches in North Korea, Pentecostalism under South Korea's rapid industrialization and democratization, Korean missionaries around the world, and Christian missions and entertainers in Korea, as well as the interface between gender and Korean Christian culture.

Cross-Listed as: ASCL 64.04 REL 32.01  
Distributive: Dist:TMV; WCult:NW

HIST 78.02 - North Korea: Origins and Transitions  
Instructor: Suh  
This course explores the history of the Democratic People's Republic of Korea (North Korea) from a global perspective. Topics include the Japanese colonial legacies; liberation, division, and foreign occupation between 1945 and 1950; the meanings of the Korean War; comparing Kim Il-Sung's North Korean revolution with Park Chunghee's state building in the South; the reality of "Self-Reliance"; social control and everyday life; and issues around human rights.

Cross-Listed as: ASCL 64.03  
Distributive: Dist:SOC; WCult:NW

HIST 78.03 - The Two Koreas, 1948-Present  
Instructor: Suh  
This course explores the emergence of the two Koreas, from a global perspective. Beginning with the legacies of the Chos\u014Fn Dynasty, we will examine the impact of Japanese colonialism on the divergence of the two nation-states: the Republic of Korea (South Korea) and the Democratic People’s Republic of Korea (North Korea). Analyzing scholarly writings and primary sources, the course will focus on the domestic and international processes through which the two regimes clashed and competed in the context of the Cold War. We will primarily focus on drastic differences manifested between the two countries' ideologies, cultures, and political economies, but also pay attention to unexpected parallels experienced by Koreans across the hostile division. Students will pursue a final research project, in consultation with the instructor, on a comparison of their choice related to the themes of this course. No prior knowledge of the Koreas or the Korean language is expected.

Cross-Listed as: ASCL 64.12  
Distributive: Dist:SOC; WCult:NW

HIST 79 - Postwar Japan: From Occupied Nation to Economic Superpower  
Instructor: Mills; Ericson  
This course examines the internal and external forces that have shaped Japan's government, economy, and society since 1945. Topics to be treated include American Occupation reforms, the conservative hegemony in politics, rapid economic growth and its costs, the mass middle-class society, and Japan's changing world role. Open to all classes.
HIST 80 - The History of Capitalism in Latin America
Instructor: Voekel
This course will ask what five centuries of Latin American history can tell us about the origins and consequences of global capitalism. We will listen to capitalism’s champions and critics, including state actors, the Church, non-governmental organizations, and organized social movements, and ask how the interplay between them has influenced economies, politics, and culture. Capitalist development and transformation involved elaborate cultural campaigns to win hearts, minds, and bodies to the project, and we will focus on how and why, for example, at its most extreme some people equated capitalism with sin while others found spiritual succor within its logics.

Cross-Listed as: LACS 50.13
Distributive: Dist:SOC

HIST 82.01 - The Politics of Natural Disaster in Latin America
Instructor: Meléndez-Badillo.
In September 2017 two massive hurricanes, Irma and María, swept the Caribbean. As a result, Barbuda was left uninhabitable, Puerto Rico’s unofficial death toll was estimated in the thousands, and Dominica resembled a war zone. Hundreds of thousands were left without electricity and potable water in a region that was already suffering from stagnating economies and humanitarian crises. These natural events and their unnatural consequences laid bare the region’s legacy of colonialism, underdevelopment, and failing infrastructures. Things will never go back to the way they were before. Yet, these events are hardly unique in the Caribbean and Latin American experience. If Latin America, and the Caribbean region within it, have not only been shaped by human development but also by natural events. Hurricanes and earthquakes—the two natural events this course focuses on—have transformed the region’s landscape. This course seeks to answer the question of what can the history of natural disasters teach us about political structures, national projects, and social relations. Through interdisciplinary readings, students will use secondary and primary materials, including chronicles, art, and news reports to explore how natural events have shaped human societies.

Cross-Listed as: LACS 031
Distributive: Dist:SOC; WCult:NW

HIST 82.04 - Transnational Utopias: Latin American Anarchisms
Instructor: Meléndez-Badillo
This course focuses on how anarchism developed in Latin America and the Caribbean at the turn of the twentieth century. It offers a brief historical and historiographical introduction to the idea of anarchism and its first adherents in the region. It also explores the materiality of anarchist transnational networks and the creation of working-class intellectual communities. The class ends by critically examining the legacies of anarchism in contemporary Latin America and the Caribbean.

Distributive: Dist:TMV; WCult:NW

HIST 83 - Twentieth-Century Latin America
This course seeks to address major issues in twentieth-century Latin America through the history of three or four countries. Topics discussed will include development, imperialism, nationalism, revolution, state formation and violence. Open to all classes.

Cross-Listed as: LACS 047
Distributive: Dist:SOC; WCult:NW

HIST 84 - History of Brazil
This course covers the history of Brazil from Portuguese contact with the indigenous populations in 1500 until the present. Following a general chronological sequence, the lectures, readings, and discussion treat various selected topics of importance in the political, economic, social, intellectual, and cultural development of Brazil. The principal objective is to chart conflict, change, and continuity within Brazilian society and to come to understandings of their causes, interactions, and consequences.

Distributive: Dist:SOC; WCult:NW

HIST 87 - Culture and Identity in Modern Mexico
Instructor: Voekel
From the Porfiriato and the Revolution to the present, a survey of Mexican society and politics, with emphasis on the connections between economic developments, social justice, and political organization. Topics include fin de siècle modernization and the agrarian problem; causes and consequences of the Revolution of 1910; the making of the modern Mexican State; relations with the United States; industrialism and land reform; urbanization and migration; ethnicity, culture, and nationalism; neoliberalism and social inequality; the problems of political reform; and the zapatista rebellion in Chiapas. Open to all classes.

Cross-Listed as: LACS 76
Distributive: Dist:SOC; WCult:NW

HIST 90.04 - The Making of the Modern Middle East
This panoramic course surveys major developments in Middle East history, politics, and society. Covering more than a two hundred year stretch, we will move across an expansive geography encompassing North Africa, the Levant, the Arabian Peninsula, and parts of Central Asia. Throughout this journey, particular attention will be paid to
five important themes: imperialism, modernization, nationalism, Islam, and revolution. In the process of navigating these seminal topics, we will develop a more nuanced understanding of the modern Middle East and a greater appreciation for the insights offered by primary sources, from poems and national speeches to songs and motion-pictures, into the region’s dynamic past. We will begin with a basic question – what and where is the Middle East? – prior to exploring the impact, importance, and mechanics of empires (Ottoman, French, British). Once elucidating this imperial backdrop, we will study sweeping reforms, struggles for independence, and the fashioning of nation-states, before examining a series of revolutionary moments, America’s presence in the Middle East, and the “Arab Spring” and its aftermath. Whenever possible, we will strive to illuminate ordinary people, as opposed to only elite actors, who contributed to the making of the modern Middle East.

Cross-Listed as: MES 2.01 JWST 044
Distributive: Dist:INT or SOC; WCult:NW

HIST 90.05 - The Jewish Atlantic
This course will examine the contribution of Jews, crypto-Jews, and Conversos to colonial enterprises in the transatlantic sphere, 15th-19th centuries. Focusing on the Iberian peninsula, we will examine Jewish settlements in North America, Latin America and the Caribbean, including Jewish owned plantations in Suriname, Jewish involvement in the triangulated slave trade, and the impact of the Inquisition, the Age of Emancipation, and the Atlantic revolutions.

Cross-Listed as: JWST 014 LACS 50.16
Distributive: Dist:SOC; WCult:NW

HIST 90.06 - Daniel Webster and the Dartmouth College Case
Two hundred years ago, in 1819, Daniel Webster argued a case in front of the Supreme Court defending his alma mater, Dartmouth College, against the predations of the State of New Hampshire. The Court found in favor of Dartmouth, which preserved the College as a private entity. Perhaps more importantly, it also laid the legal foundation for the modern economy, where corporate firms are to some extent free of state control. This course aims for a comprehensive understanding of the Dartmouth College Case and Daniel Webster by integrating the perspectives of American studies, history, political theory, and law.

Cross-Listed as: COCO 024 ENGL 52.11 GOVT 60.18
Distributive: Dist:TMV

HIST 90.07 - The Great Migrations in American History
In the decades between the 1910s and the 1970s, millions of southerners left the rural South for the booming cities of the North and West, in what was inarguably one of the most significant demographic events of the 20th century. From the Chicago blues to the Bakersfield Sound; *The Grapes of Wrath* to *Black Boy*; the Black Panthers to the Southern Baptist Convention—the influence of the southern migrations can be seen everywhere in American society during these years. Rather than treating the experiences of black and white migrants separately, this course takes a comparative approach to these simultaneous and parallel migrations, focusing on the political and economic factors that drove out-migration from the South; the impact that southern migration had on race relations and labor markets in northern and western cities; the diasporic communities formed by southern migrants in their new homes; and the impact of the migrations on American culture and politics over the course of the 20th century.

Distributive: Dist:SOC; WCult:W

HIST 90.08 - Democracy: Ancient to Modern
This course comprises four parts. In the first, we will familiarize ourselves with the concept of democracy, as well as the historical context in which democracy first emerged. In part two, we will explore the history of democracy at ancient Athens, with an emphasis on the development and functioning of democratic institutions, democratic ideology, and the exploitation by democracies of women, slaves, and foreigners. In part three, we will consider democracies outside Athens, as well as non-democratic regime types, such as oligarchy, tyranny, and the “Lycuran” constitution at Sparta. In part four, we will turn our attention to the modern era. More specifically, we will compare Greek democracies to subsequent institutions that have been described as democratic (e.g., New England town hall meetings, the United States of America, and the Democratic Republic of the Congo); examine the impact of Greek democracy on the development of modern political thought.

Cross-Listed as: CLST 11.13
Distributive: Dist:INT or SOC; WCult:W

HIST 90.09 - Global South Asia
Instructor: Lhost
Home to some of the world’s richest people and biggest companies, South Asia has been the source of countless stories of success. Yet there’s more to these stories than meets the eye. What makes South Asia important globally and what is the history behind South Asia’s recent rise? Global South Asia answers these questions by looking at
the ways the region has been connected to other parts of the world throughout history.

Cross-Listed as: ASCL 54.10
Distributive: Dist:SOC; WCult:NW

**HIST 90.10 - Liberalism and Its History: World War II to the Present**

The 2016 election of Donald Trump, Brexit, and what appears to be a global turn to nationalism, have led to the publication of endless columns and myriad books proclaiming liberalism to be in a state of international crisis. Liberalism is not in its death throes, but what talk over a crisis of liberalism has initiated is a discussion about its historical origins, and how liberalism has evolved over time given new political contexts and challenges. The purpose of this course is to help you come to terms with today’s political crisis by looking at challenges to liberalism—as an idea, sensibility and political program—from the Cold War until the present. Topics to be discussed include: Cold War Liberalism, Neoliberalism, the liberalism of John Rawls and his critics, Neoconservatism, Globalization, Liberalism and Religion, and the contemporary crisis of liberalism.

Distributive: Dist:SOC; WCult:W

**HIST 90.11 - Law and Empire**

Instructor: Lhost

How did law justify European imperialism? What did law look like in different imperial contexts? How do the histories of empire and imperialism help us understand the history of law? Looking across regions and contexts, from early modern Iberian empires, to early colonial North America, to Africa and Asia, this course examines the relationship between law, empire, expansion, and colonialism from the 17th to 21st centuries. With a few exceptions, our readings and discussions will follow chronological order, veering off course occasionally to look at issues comparatively. Throughout, we'll be working to uncover how imperial approaches to law changed over time and how laws and legal institutions with imperial origins have shaped expectations and experiences into the present.

Cross-Listed as: GOVT 60.23
Distributive: Dist:INT or SOC; WCult:NW

**HIST 90.13 - Placing History: A Exploration of Local History through Archives, Fieldwork, & Digital Maps**

Instructor: Mikecz

This course will explore two related questions: how can spatial and place-based thinking benefit historical scholarship? More specifically, how can we combine fieldwork, archival research, and the use of digital tools to help us recover hidden aspects of local history? To answer these questions, this course will include three parts. First, a seminar component will allow students to think global and act local. Students will analyze and discuss spatial history and place-based history projects from around the globe while also evaluating primary historical sources on local and regional history. Second, a fieldwork component will allow students to visit local archives and the places they are studying and examine the way history has alternatively been inscribed in or erased from the landscape. Third, a lab component will offer students the chance to learn new skills using Geographic Information Systems (GIS) software to map local history over space and time.

Cross-Listed as: NAS 30.22
Distributive: Dist:SOC; WCult:NW

**HIST 91.01 - Christians, Jews, and Muslims in the Age of the Crusades**

Instructor: MacEvitt

This course will focus on the interactions of the three major religious communities of the medieval Mediterranean—Christians, Jewish, and Muslim—beginning with the First Crusade in 1096 and ending with the arrival of the Black Death in 1347. By examining topics such as pilgrimage, crusade, and jihad, the status of minority communities, and intellectual life, we will explore how Christians, Jews, and Muslims clashed, cooperated, influenced, and misunderstood each other. Open to all classes.

Cross-Listed as: JWST 36.01; REL 33
Distributive: Dist:TMV; WCult:W

**HIST 91.02 - Christianity and Conversion in the Northern World: Vikings, Celts, and Anglo-Saxons**

Instructor: MacEavitt

This course explores the transformation of Christianity in the early medieval period. The conversion of ‘barbarian’ peoples in northwest Europe between the years 400 and 1000 meant Christianity had to adapt to a different environment than the Roman and Mediterranean one in which the religion developed. The northern world was without the Roman Empire, without cities, with different languages, cultures and notions of relations between the human and divine worlds. This course explores the impact the conversion of Germanic, Anglo-Saxon, Celtic, and Nordic communities had on Christianity, as well as why communities of the northern world voluntarily chose to adopt this new religion. Open to all classes.

Cross-Listed as: REL 034
Distributive: Dist:TMV; WCult:W

**HIST 92.01 - Caribbean History: 1898 to the Present**

This course surveys the major issues that have shaped Caribbean society from the late 19th-century to the present,
including: imperialism, urbanization, migration and globalization, struggles for national independence, the transition from plantation to tourism-based economies, and the global spread of Caribbean popular culture. Our readings and discussions will focus on the historical trajectories of Cuba, Haiti, Jamaica, Puerto Rico, Trinidad, and the Dominican Republic using historical scholarship, music, literature, film, and personal narratives.

Cross-Listed as: AAAS 61
Distributive: Dist:INT or SOC; WCult:NW

HIST 92.02 - Nationalism and Revolution in the Caribbean
Instructor: Chochotte

The islands of the Caribbean have seen two revolutionary upheavals of the modern era—the Haitian Revolution and the Cuban Revolution and have produced a diverse cadre of anti-colonial activists and intellectuals. Beginning with the uprising of enslaved laborers in Saint Domingue in 1791, the course explores the history of nationalist movements in the Spanish-, English-, and French-speaking Caribbean. We will analyze and compare the ideological underpinnings of nationalist movements, discuss ways in which nationalist leaders have attempted to mobilize popular support, and consider why violent revolutionary struggles erupted in some Caribbean territories but not in others.

Distributive: Dist:INT or SOC; WCult:NW

HIST 92.03 - Slavery and Emancipation in Latin America and the Caribbean

For over 300 years, Africans were transported to Latin America and the Caribbean to work as enslaved laborers. This course will examine the history of African slavery in the region from the beginning of the Atlantic slave trade to the abolition of slavery in Brazil in 1888. For each class session, students will review primary source documents such as autobiographies, slave codes, plantation journals, visual images, and anti-slavery tracts as well as historical scholarship.

Cross-Listed as: AAAS 060, LACS 058
Distributive: Dist:INT or SOC; WCult:NW

HIST 92.04 - Partition in South Asia

In the years leading to 1947, nationalist activism against the British and tensions between Hindus and Muslims escalated in the Indian subcontinent. This culminated in Partition and the emergence of the nations of India and Pakistan. Independence was marred, however, by the bloodshed accompanying the mass movements of Muslims into Pakistan and Hindus into India. What were the factors leading to this juxtaposition of triumphal Independence with shameful Partition? What were the implications of Partition for ordinary people? How have memories of Partition continued to affect powerful politics and culture in the subcontinent? This seminar investigates such questions using a wide variety of materials including films, memoirs, fiction and scholarly works. This course follows recent scholarship in focusing on the long-term implications of Partition for the subcontinent. Hence, while we certainly will investigate the events leading up to Partition, our emphasis will be on understanding the effect of Partition on the lives of ordinary people during and after.

Distributive: Dist:INT or SOC; WCult:NW

HIST 92.05 - The City in Modern South Asia

South Asian cities are currently undergoing massive demographic and spatial transformations. These cannot be understood without a consideration of both the specific history of South Asia and a broader account of urban change. This course examines these changes in historical perspective and situates urban South Asia within a global context. How did colonial rule transform cities such as Delhi, Lahore, and Bombay? How were the differing ideologies of India and Pakistan mapped onto new capitals such as Chandigarh and Islamabad? How are ethnic pasts and techno futures reconciled in booming cities such as Bangalore and Mumbai? How are slums produced and what are the experiences of people living in them? What are the connections between the urban environment and political mobilization? We consider a range of sources, including scholarly literature, films, and short stories.

Cross-Listed as: ASCL 54.03
Distributive: Dist:SOC; WCult:NW

HIST 92.06 - Russia and the West: From Early Times to Present Day
Instructor: Finkel

In its thousand-year history, Russia has occupied a unique place between Europe and Asia, and both Russian and foreign observers have wrestled with defining its place vis-à-vis western (European) civilization. This course will explore Russia’s place in world history, examining the complex and evolving relationship of Russia and Europe, and the Soviet Union and the West, from the middle ages to the present. Particular emphasis will be given to the complex relationship of Putin’s Russia with the United States today.

Cross-Listed as: RUSS 50.01
Distributive: Dist:INT or SOC; WCult:W

HIST 92.07 - Black Agrarian Democracy: Haitian History from Revolution to the Fall of the Duvalier Dictatorship
Instructor: Chochotte
The course explores the historical struggle between democracy and authoritarianism in Haiti throughout its two hundred seventeen years of independence as a free black nation, which also makes the island one of the oldest sovereign countries in the Western Hemisphere. To understand the island’s history, students are expected to read what historians and writers have written about Haiti; and to read the primary letters of frantic French planters, rebellious African slaves, egalitarian peasants, enterprising market women, conscientious revolutionaries, exuberant military generals, loquacious politicians, feared dictators, and dreaded militias through time. The course will, indeed, move through four important, though overlapping, historical moments. First, we begin with an examination of the 1791-1804 Haitian Revolution when enslaved Africans revolted against the French colonial planters to successfully abolish slavery and to achieve national independence. Second, we read through the formation of grassroots and institutional democratic traditions in the nineteenth century and how they were undone during the 1915-1934 US Occupation of Haiti, where US President Woodrow Wilson ordered the American military to invade Haiti and control the island for almost two decades. Third, we will explore how the undoing of democracy led to the rise of the Francois and Jean-Claude Duvalier dictatorship (1957-1971) and its dreaded militia called the tonton makout (often spelled in the following French orthography: tonton macoutes). Finally, we will conclude the class by looking at how and why the Haitian peasantry overthrew the dictatorship to replace it with the democratically elected President Jean-Bertrand Aristide (1991).

Cross-Listed as: AAAS 61.05
Distributive: Dist:SOC; WCult:NW

HIST 94.03 - Greek History: Archaic and Classical Greece (Identical to, and described under, Classical Studies 14)
Instructor: Christesen
Cross-Listed as: CLST 14
Distributive: SOC; WCult: W. Major INTER; <1700, <1800.

HIST 94.04 - Alexander the Great and the Macedonian Kings (Identical to, and described under, Classical Studies 15)
Cross-Listed as: CLST 15
Distributive: SOC or INT; WCult: W. Major INTER; <1700, <1800.

HIST 94.05 - Roman History: The Republic
Instructor: Stewart
This course surveys the history of the Roman people from 753 (traditional date of the founding of Rome) to 44 B.C. (the assassination of Julius Caesar). Topics include the development of Roman law, the conquest of all lands bordering on the Mediterranean, and the civil wars that destroyed Republican government. Particular emphasis is placed on the Roman political community: the political, religious and social factors that influenced the definition of the Roman aristocracy in the fourth century, the institutions that maintained the ascendancy of the elite, the military and political values inherent in the citizenship, the social and political mechanisms that militated against civil dissent, and the role of political values in the eventual destruction of Republican government from within.

Cross-Listed as: CLST 017
Distributive: Dist:SOC; WCult:W

HIST 94.06 - History of the Roman Empire: Roman Principate to Christian Empire
This course is designed to survey the major events in the history of Rome from 31 B.C. (Octavian/Augustus' success at the battle of Actium) through the accession and rule of Septimius Severus. During this period, the Roman empire (signifying the territorial extent conquered by Roman armies and administered by Roman officials) became a political community extending throughout the Mediterranean and northwards into Europe as far as Scotland. This course considers the logic of the Roman system: the mechanisms promoting the political identity of diverse peoples as Roman, and the endurance of local traditions within the Roman world; the reasoning whereby the overarching leadership of a single individual was conceived as necessary and good, and the evolving relationship between the princeps and the Roman senatorial aristocracy with a tradition of competitive participation and self identity in politics at Rome; the definition of the Roman frontiers and the role of the army in the assimilation of non-Roman peoples.

Cross-Listed as: CLST 018
Distributive: Dist:INT or SOC; WCult:W

HIST 94.08 - History and Culture of the Jews: The Classical Period
Cross-Listed as: JWST 10
Distributive: SOC; WCult: W. Major INTER; <1700, <1800.

HIST 94.09 - History and Culture of the Jews II: The Modern Period
A continuation of JWST 10, but may be taken independently. This course provides a survey of Jewish history and culture from the European enlightenment to the establishment of the State of Israel.

Cross-Listed as: JWST 011
Distributive: Dist:SOC; WCult:CI
**HIST 94.10 - Jews and Arabs in Israel-Palestine: Past and Present**

The course will cover more than hundred years of struggle between the Jewish national movement, aka the Zionist movement, and the Arab-Palestinian national movement, through exploration of the belief systems, political and military practices, perceptions of justice, and narratives of both movements and of political and religious factions within each of them.

Cross-Listed as: GOVT 40.18 JWST 40.04 MES 17.14
Distributive: Dist:SOC; WCult:CI

**HIST 94.11 - Jewish Views of Christianity**

What do Jews think of Christianity? The two religions took shape under each other's influence as well as in repudiation of one another's claims, but while we often hear about Christian anti-Judaism, we rarely learn about the other side of the story. This course will examine an ancient Jewish version of the Gospels, medieval Jewish polemics regarding Christian dogma, Christian influences on Jewish mysticism, modern Jewish scholarship on Christian origins, Jewish artistic representations of Christian symbols, and post-WWII Jewish efforts to create new and positive relations with Christians.

Cross-Listed as: JWST 36.02 REL 32.06
Distributive: Dist:INT or TMV; WCult:CI

**HIST 94.13 - Slaves, Wives, and Concubines: Did Roman Women Have a History?**

This course is about the heterogeneous lived experience of women (slaves, freed slaves, lawful wives, daughters, prostitutes) during the Roman Republic and Empire. Roman women built and immortalized themselves and their families in funerary and civil monuments, endowing institutions like schools, and sometimes had coins bearing their portraits. We explore the larger institutional frameworks that gave meaning to their lives, and within this framework we investigate their life choices over time.

Cross-Listed as: CLST 11.12, WGSS 21.01
Distributive: Dist:SOC; WCult:CI

**HIST 94.14 - Jews and Cities: Urban Encounter and Cultural Transformations**

The Jewish diasporic encounter in Europe took place almost entirely in an urban context. The legal, political and cultural framework of the European city shaped the trajectory of the Jews in a profound and lasting way, and cities and metropilises continue to shape Jewish civilization in many ways. From the Venetian ghetto to the Lower East Side, from the *pleitzl* in Paris to the vast neighborhoods in the first Jewish metropolises in Eastern Europe, the different settings shaped Jewish civilization.

This class will use a broad range of materials: literary texts, the press, scholarly analysis (historical, sociological, anthropological), film, art and art history.

Cross-Listed as: GEOG 040 JWST 12.01
Distributive: Dist:SOC; WCult:CI

**HIST 94.15 - History of the Holocaust**

The focus of this course will be on the history of the murder of European Jews and the destruction of European Judaism at the hands of the Nazis. After surveying the history of racism in European society from the 18th to 20th century, the course investigates, from perspectives of history, psychology, literature, philosophy, and religion, how bureaucracy could exterminate six million Jews.

Cross-Listed as: JWST 37.01
Distributive: Dist:SOC; WCult:W

**HIST 95.01 - Foreign Study Program: London in History**

Instructor: Musselwhite; Sackeyfio-Lenoch

Through lectures, readings, discussions, and fieldwork this course explores aspects of London's history from medieval to modern times. Using the city itself as a living laboratory for historical thinking, the course relates the development of London and its neighborhoods to the larger concentric histories of nation, region, empire, and world.

Cross-Listed as: JWST 37.01
Distributive: Dist:SOC; WCult:W

**HIST 95.02 - Foreign Study Program: History Study Abroad**

Instructor: Musselwhite; Sackeyfio-Lenoch

Graded credit for this course is awarded to students who have successfully completed an approved course offered by the History faculty of University College London while a member of the Dartmouth Foreign Study Program in History. Selections for 2013 include: "Slavery in the Classical World"; "Natural Law and State Sovereignty: European Political Thought in the 17th Century"; "The Human and Its Others: Enlightenment Ideas of Ethnicity and Race"; "Crime and Popular Disorder in England 1714-1780"; "Ireland 1689-1801"; Remembering Slavery: Britain, Colonial Slavery and Abolition" and "Law's Empire: Legal Cultures in the British Colonial World."

Cross-Listed as: JWST 37.01
Distributive: WCult:W

**HIST 96.01 - Seminar: Colonialism and Culture in Asia and Africa**

Instructor: Haynes

This course examines the ideologies and cultural practices associated with European colonialism and with opposition to European colonialism in Asia and Africa, focusing on the period of “high imperialism” between 1870 and 1930.
After exploring the major forms of imperial ideology, the course then looks at various manifestations of colonial culture, including science and technology, medicine, anthropology, photography, art, sport and gender practices. Finally, the course treats bourgeois nationalism and the cultures/ideologies of anti-colonialism.

Distributive: Dist: SOC; WCult: NW

**HIST 96.03 - Seminar: Topics in British History**

Instructor: Estabrook

In this seminar, each student produces an article-length paper, based on period sources from the British Isles or its colonies, on a topic of particular interest to that student under the organizing principle of a broader unifying theme. That theme also provides the basis of group discussions and individual presentations around a set of common readings. Examples of unifying themes include: culture and power; cities and villages; supernatural and society; civil war and rebellion.

Distributive: Dist: SOC; WCult: W

**HIST 96.04 - Ethnic Los Angeles**

This course will focus on the history, culture and literature of Los Angeles, California, the second largest city in the United States. We will briefly examine its founding in the eighteenth century as a Northwest outpost of the Spanish empire in the Americas, and its origins and evolution as a Mexican pueblo and U.S. city in the nineteenth century. The majority of our attention will be on the historical and contemporary struggles of people of color in metro-Los Angeles throughout the twentieth and into the twenty-first centuries.

Cross-Listed as: LACS 80.60

Distributive: Dist: SOC; WCult: CI

**HIST 96.07 - Seminar: Topics in Modern Japanese History**

Instructor: Ericson

The postwar U. S. occupation of Japan has generated intense scholarly interest and debate. The debate has centered on the effects of the American-directed reform program and the so-called "reverse course" in Occupation policy. Just how significant was the Occupation for the postwar development of Japan? Did it cause a sharp break in modern Japanese history? And to what extent did the United States remake Japan in its own image?

**HIST 96.08 - Seminar: Pen and Ink Witchcraft: Native American History Through Treaties**

Instructor: Calloway

Treaties were instrument of dispossession in North America and Indian people referred to treaty making as "pen and ink witch-craft." But the hundreds of Indian treaties also generated unique records of cultural encounter. Working with the records of key treaties, this seminar will examine the protocols of Indian diplomacy, the agendas of the participants, the outcomes of the treaties.

Distributive: Dist: INT or TMV; WCult: NW

**HIST 96.12 - Seminar: Race, Ethnicity and Immigration in U.S. History**

Instructor: Orleck

This seminar examines the evolving meaning of the U.S. border, the history of whiteness as a spoken and unspoken requirement for full American citizenship and the ways that stereotyping has been used to enforce race, gender, ethnic labor hierarchies from the first European/First Peoples contacts, through the era of slavery and early nineteenth century immigration. The second half of the course examines how race, ethnicity, class and gender have shaped the self-identification of many different kinds of immigrant groups from the mid-nineteenth century through the late twentieth century with a continued focus on evolving meanings of whiteness. In the course's final unit, we examine racial and ethnic tensions in U.S. cities that have been the destination for large waves of immigrants through the 1990s.

Distributive: Dist: SOC; WCult: CI

**HIST 96.13 - Colloquium: Great Explanations: Global Methods**

Historians and other social scientists are supposed to explain the big things. But great explanations—the causes of everything, or most things, or everything that matters—are risky and sometimes hilarious. This colloquium explores both the results of risk-taking in interpreting the past and the tools used by social scientists to come up with yet one more great explanation.

**HIST 96.14 - Seminar: Napoleon and His Enemies**

Departmental placement and instructor permission is required.

Distributive: Dist: SOC; WCult: W

**HIST 96.21 - Political Thought in Colonial America**

This seminar investigates the ideas and practices that constructed and deconstructed empire in North America during the seventeenth and eighteenth centuries. It explores the perspectives of those involved in advancing and resisting European colonialism as they debated how to manage political, economic, and religious structures that bridged the Atlantic. The course traces evolving scholarly approaches to analyzing political culture and equips students to undertake research in early American political history with published and archival records.

Distributive: Dist: TMV; WCult: W
**HIST 96.22 - Nazism: Culture, Society, War**

This seminar will explore the origins, nature, and consequences of Nazism. Drawing on a wide variety of sources, we will discuss: what were the ideological, social, and political origins of the Nazi movement? How did it succeed in mobilizing so many Germans, and what were the characteristics of the regime it created? How and why did it unleash war and genocide? Alongside reading and discussions, students will also conduct independent research on a related topic.

**Distributive: Dist:INT; WCult:W**

**HIST 96.23 - Topics in West African History**

Instructor: Sackeyfio-Lenoch

This course deals with the history of West Africa and its relationships with global powers in the decades following WWII. This course will trace the socio-cultural, political and economic struggles, aspirations and livelihoods of West African nations, their leaders and citizens, as they negotiated global Cold War dynamics during the postwar-era through the contemporary period. We will also consider the legacies of the global Cold War in West Africa.

**Distributive: Dist:INT; WCult:W**

**HIST 96.25 - World War II in the Pacific, 1931-1945**

Instructor: J. Miller

This course explores the origins, nature, and consequences of World War II in the Pacific. Moving beyond the common U.S. focus on the war as a U.S.-Japanese conflict, it examines the different nations, political movements, ideologies, and empires that clashed between 1931 and 1945. The course culminates in a 20 – 25 page research paper that uses primary and secondary sources; students will develop their topic in consultation with the instructor.

**Distributive: Dist:INT; WCult:W**

**HIST 96.26 - Ritual and Violence in Crusader Jerusalem**

Open with written permission of the instructor to juniors and seniors. For details concerning individual seminars consult the Department. Section numbers follow the decimals.

**HIST 96.27 - Great Historians: Classic Works from Herodotus to Du Bois**

Instructor: McMahon

This course aims to introduce students to the craft of history via an exploration of the writings of some of the most celebrated historians in the Western tradition. The readings, which range from the 6th century BCE through the 19th century, are all canonical and though none is without its shortcomings, each has endured for good reason. We will spend the course reading these works closely and critically, cultivating both an appreciative sense of what they do well and a critical sense of where they fall short. In the process, we will consider the methods, aims, purposes, and value of history itself.

**Distributive: Dist:SOC; WCult:W**

**HIST 96.28 - America in the 1970s**

Instructor: Moreton

Formerly dismissed as the decade when “it seemed like nothing happened,” the seventies are increasingly understood as a decisive period when a new political economy took shape, new forms of citizenship competed for influence, and new cultural forms emerged. Even disco has gotten a second look. By shedding light on a significant incident, movement, art form, cultural phenomenon, debate, organization, or development of the era, you will contribute to this ongoing project of historical reassessment.

**Distributive: Dist:SOC; WCult:W**

**HIST 96.29 - Seminar: Debating Democracy in Nineteenth-Century America**

Instructor: Butler

This seminar examines the ideas and practices of American democracy at the moment of its emergence. After an initial couple weeks of defining terms and orienting ourselves in the larger context of modern democracy, our readings and discussions will consider such key issues as: expansions and contractions in voting rights; the role of public opinion; the place of minorities in majoritarian government; the tensions between American democracy and American slavery; and the contested debates over the citizenship of women and African Americans.

**Distributive: Dist:TMV; WCult:W**

**HIST 96.30 - American Empire and Development**

This seminar examines the phenomenon of empire in the history of the United States’ relations with the world. It focuses specifically on the ways in which American empire has intersected with the ideas and practices associated with the concept of development. While we will spend a little bit of time on the outset of the term on definitions of key concepts (What is empire? What is development?), the bulk of the course readings and discussions will focus on how U.S. empire and development were intertwined in particular places and times during the twentieth century.

**Distributive: Dist:SOC; WCult:W**

**HIST 96.31 - The Crisis of the Late Middle Ages Reconsidered: Art, Artists, and Cultural Change**

This seminar re-examines a famous period in European history through the lens of art. The “Late Medieval Crisis” conjures up images of Europe marked by decadence and decline, to be rejected or rejuvenated in the Renaissance
and Reformation. Looking at cultural and intellectual changes expressed in the visual arts prompts a more nuanced approach, revealing the extraordinary fertility of thought and action in this time of transition.

Distributive: Dist:TMV; WCult:W

HIST 96.32 - American Characters: Biography and the Historians’ Craft

This seminar follows what has been a recent “biographical turn” among academic historians. Besides introducing students to the theoretical and conceptual questions involved in the narration of individual lives, it will survey some of the most inventive historical biographies of the past quarter century. Each student will execute a multi-step exploration of the lived experience, significance, and, if applicable, impact of a single individual from any period of US history.

Distributive: WCult:W

HIST 96.33 - Global History of Human Rights

Instructor: Nikpour

This course aims to complicate histories of human rights that imagine that such rights only or primarily exist in Euro-American contexts and have to be exported — either through humanitarian or military intervention — to the Global South. To this end, we will look at rights movements in Middle East, Latin America, and Asian contexts, and attend to the often-complicated history of such movements in the context of imperialism and war. In this course, we will ask: What are human rights, and what is their history? What is the relationship between human rights and earlier languages of rights? What counts as a human right? Can there be a universal standard for human rights despite social difference? What political and ethical possibilities have been opened for marginalized communities by the language of human rights, and what possibilities have been foreclosed by the often-singular focus on human rights as a panacea against all social ills? And finally: do our demands for human rights work to make the world a more just place, and are these demands enough?

Distributive: Dist:INT or SOC; WCult:NW

HIST 96.34 - London-Based Archival Research and Historical Writing

Instructor: 21F: Bonner and Greenberg

This seminar is for students admitted to the History Department’s Foreign Study Program in London and will serve as one of their three FSP courses. In consultation with the course instructors and the London FSP director, students will conceive, research, and execute a research project based on primary material from archives in and around London.

HIST 96.37 - Topics in Economic History

This senior seminar addresses major debates and problems in economic history from a global perspective. The class is designed for students with previous course experience (within HIST, GEOG, GOV, ECON, or another program) in economic history, international political economy, and/or the history of capitalism. Writing a substantial research paper, based on primary sources and using historical methodology, is a core component.

Distributive: Dist:INT or SOC; WCult:W

HIST 96.38 - Crisis and Continuity in Twentieth-Century US Social Movements

Instructor: Rabig

This course invites students to study the history of twentieth-century social movements through close primary source analysis and historiographic debate. We’ll identify the precipitating events or crises that cultivate particular social movements, but we’ll also examine their quieter dimensions, including their afterlives, “half-lives,” and influence on subsequent movements. Coursework will immerse students in historiographic debates and extend those conversations through assignments in which students identify and present primary sources to the class. We’ll continue our collective preparation for primary source analysis through visits to Rauner Archive and Special Collections. The course will culminate with a 20-25 page research paper on a social movement of your choosing.

Distributive: Dist:TMV; WCult:W

HIST 96.39 - Saints and Relics in the Middle Ages

Instructor: Gaposchkin

This course surveys the critical role and importance of saints – and their remains (relics) – in medieval European history, from the rise of Christianity to the eve of the Reformation. The saints were the link between the human and the divine, and after their death they continued to play an active role in the affairs of the world. Their remains (relics) were powerful, valuable commodities that were revered, bought, and traded; for which the great cathedrals were built; and to which the faithful travelled for thousands of miles, on pilgrimage. Study of saints and their relics permits evaluation of faith, belief, narrative, ritual, art and aesthetics, materiality, gender, ideology, power, and politics throughout the Middle Ages.

Distributive: Dist:SOC; WCult:W

HIST 97 - Independent Study

Instructor: History Faculty

This course allows students to pursue a subject of special interest under the direction of a member of the History Department through a specially designed program of readings, reports, and/or research.
HIST 98 - Honors Seminar
Instructor: 21F: J. Miller; 22F: Musselwhite
This seminar is for students who are researching and writing a senior thesis in the History Department’s Honors Program. It focuses on the practice of reading, researching, and writing history as support and preparation for a student’s individual thesis research. Only students enrolled in the Honors Program may take HIST 98. This course does not fulfill the requirement of a culminating experience in the Major and it may be taken only once.

HIST 99.01 - Honors Thesis I
Instructor: 22W: J. Miller; 23W: Musselwhite
This course involves an extensive investigation of some topic. Only students enrolled in the History Honors Program may take HIST 99.01; permission of the thesis advisor and the Chair.

Students are awarded one course credit for successful completion of this course at the end of the second term of study. Students subsequently register for HIST 99.02, and continue with their coursework into a second term. A final grade will replace the "ON" for HIST 99.01 at the end of the second term of coursework.

HIST 99.02 - Honors Thesis II
Instructor: 22S: J. Miller; 23S: Musselwhite
This course involves the continuation and finalizing of some topic and submission of a bound undergraduate thesis by the designated deadline. Only students enrolled in the History Honors Program may take HIST 99.02; permission of the thesis advisor and the Chair.

Students are awarded one course credit for successful completion of this course. Students who have registered for HIST 99.01 register for this course and continue with their coursework into a second term. A final grade will replace the “ON” for both HIST 99.01 and this course at the end of the second term of coursework.

Humanities
Directors: Steven Swayne, Andrea Tarnowski

To view Humanities courses, click here (p. 470).

HUM - Humanities Courses
To view Humanities requirements, click here (p. 470).

HUM 1 - Dialogues with the Classics
Instructor: Gibbs, Hollister, Santana, Singh, Stewart, Tarnowski
An introduction to classics of Western Literature and the ways in which later writers have engaged with them.

Readings may include Homer's *Odyssey*, Dante's *Inferno*, Plato's *Phaedrus*, Mann's *Death in Venice*, Sophocles' *Philoctetes*, Shakespeare's *Twelfth Night* and Alice Munro's *The Beggar Maid*. The course alternates between lectures and discussion sections, with emphasis on students' class participation and essay writing. Enrollment restricted to 48 first-year students.

HUM 2 - The Modern Labyrinth
Instructor: Reyes, Walden, Boggs
A continuation of Humanities 1. Readings may include Nabokov's *Pale Fire*, Borges' *Ficciones*, Woolf's *Mrs. Dalloway*, Faulkner's *Absalom, Absalom*, Flaubert's *Madame Bovary* and selected readings from Catullus' *Wedding poem*. The course alternates between lectures and discussion sections, with emphasis on students' class participation and essay writing. Enrollment limited to 48 first-year students.

Prerequisite: HUM 1, or the permission of the course director.

Distributive: Dist:LIT; WCult:W

HUM 3.01 - Humanity by Design: City, Cinema, Self
Instructor: Williams Levey
In the *Republic*, Plato sees the city and the self as intertwined, and theater and art as providing special access to the human mind that can bypass reason to shape the soul. Two millennia later, artists of the ‘modernist’ movement in architecture and the revolutionary art form of motion pictures had similar visions: in shaping our spaces and images we shape ourselves; humanity is designed. What ideas of art and architecture, of humanity and human nature are at stake? We’ll study this theme as it arises in key episodes in the history of cinema and architecture, and in today’s transmedia environment.

Distributive: Dist:ART

HUM 3.02 - Two Empires under the Sun: Han China and the Roman Empire
In the Republic, Plato sees the city and the self as intertwined, and theater and art as providing special access to the human mind that can bypass reason to shape the soul. Two millennia later, artists of the ‘modernist’ movement in architecture and the revolutionary art form of motion pictures had similar visions: in shaping our spaces and images we shape ourselves; humanity is designed. What ideas of art and architecture, of humanity and human nature are at stake? We’ll study this theme as it arises in key episodes in the history of cinema and architecture, and in today’s transmedia environment.

Two modern superpowers, China and the United States, trace their origins back to ancient China and Rome. The empires of Han China and the Roman Republic/early Principate (3rd century BCE to 3rd century CE) inhabited opposite edges of the Eurasian land mass and shared no common roots. Yet they make for compelling case studies; key documents from written texts to artifacts such as coins, tombs, murals and inscriptions will help us explore these civilizations' ideas about the universe, empire, family, and the human body. Students will compare the societies, politics, and cultural frameworks of Han China and Rome to see the value of deep historical perspective for understanding the modern world and cultural difference.
Distributive: Dist:INT or TMV

HUM 3.03 - Fascinating Fascisms of Germany and Japan

In her 1974 essay entitled “Fascinating Fascism,” Susan Sontag argues that the fascism that plunged the world into war in the 1930s and 1940s was in essence an aesthetic mode distinguished by its horrifying blend of sublime beauty with apocalyptic violence. This class will investigate the similarities and differences of two particular brands of fascism (the German and the Japanese) in hopes of identifying and understanding the cultural and ideological dynamic that makes this worldview possible. Wartime Germany and Japan represent two distinct cultural, linguistic and historical constellations and yet in the period in question they shared a surprising number of commonalities: resuscitations of ancient mythologies, discourses of ethnic purity and racial superiority, and conflations of medieval narratives and modernist sensibilities. The instructors hope that the comparison of the disparate contexts that gave rise to such similar wartime cultures will reveal something essential to the fascist condition. Course materials will include fiction, autobiographical writing, film, cultural criticism, anthropological studies, and musical compositions. The class will include Canvas on-line discussions, collaborative learning activities, and a final research paper.

Distributive: Dist:INT or LIT; WCult:CI

HUM 3.04 - Through Others’ Eyes: Muslims and Christians after Charlemagne

This course will examine the dynamic history of the Muslim-Christian encounter. It will focus on pre-modern representations of both the Muslim ‘other’ in Europe and Europeans in the Muslim Mediterranean world. Three texts from different periods – the anonymous Song of Roland (1129-65); Amin Maalouf, The Crusades Through Arab Eyes (1983); and Ludovico Ariosto, Mad Orlando (1532) – in dialogue with historical documents, visual materials and performative elements, will allow cross-disciplinary exploration over a wide temporal arc of the ways Muslims and Christians have creatively processed their complex interdependence. The Mediterranean basin has been a space less of boundaries than of mutual influence, as the many aspects of the sustained Muslim-Christian encounter attest.

Distributive: Dist:INT or LIT

HUM 3.05 - The Invention of News

Instructor: McGillen, P Ostrau, N

News does not “happen,” it gets made—by human agents, cultural practices, material media, and networks of communication. This course charts the history of the making of news in Europe (with side glances at South America for contrastive focus), spanning from the exchange of rumors in the medieval period to the establishment of national daily papers in the late eighteenth and nineteenth century. At once a media history and a survey of key medieval and early modern textual genres, it explores the rich international media environment in which spoken, sung, handwritten, and printed news interacted and shaped the core features of the newspaper as we know it today. Analyzing genres such as chronicles, sermons, Khipu messages, letters, broadsides, travel writings, and ballads, the course investigates the relationship of news to historiography, theology, administrative practices, political activism, and entertainment. Topics will include news as a prerogative of elites vs. news as a medium of the masses; questions of veracity, manipulation, and trust; the production of news and colonialism; the relationship of news to time; and the emergence and managing of public opinion.

Distributive: Dist:SOC; WCult:W

HUM 3.06 - The Arab, the Jew, and the Construction of Modernity

This course uncovers a lost chapter in the history of modernity, engaging the Middle East in a global context both as object of representation and experimentation but also as incubator of new models of community, literary genres, and historical narratives. From Zionism to Baathism, the 20th century has witnessed the implementation of national projects that can be traced to revivalist movements in the 18th and 19th centuries in Europe and the Ottoman Empire, intellectual and poets writing in Paris, Vienna, Alexandria, and Beirut, imagining new national identities and literary canons. These essays, novels, manifestos, films, paintings, and poems had transformative effects on the Middle East, redrawing its political and cultural map, and redefining what it means to be a Jew or an Arab in the modern age. Examining this map requires a historical and literary inquiry based in comparative models of analysis and case studies.

Cross-Listed as: JWST 42.11 MES 17.19

Distributive: Dist:INT or LIT; WCult:NW

HUM 3.07 - Mobs, Crowds, and the People: Activism in Populist Times

Instructor: Mladek, Gomez

It is no accident that we find ourselves today in the midst of populist unrest. Our course Mobs, Crowds, and the People: Activism in Populist Times explores the longstanding history of popular unrest and mobilization, fear of the people in literature, philosophy, theology and film from across three continents. Populism is central to current debates about politics and the future of democracy, from radical right organizations in Europe to left-wing...
parties and presidents in Southern Europe and Latin America to the Occupy Wall Street Movement, Bernie Sanders, Donald Trump and the “Capitol Riot” in the United States. But populism is also one of the most contested concepts in the humanities and political theory. Is populism an ideology or a revolutionary strategy? A style of politics? And, crucially, who are “the people” in populism?

Cross-Listed as: GERM 46.04
Distributive: Dist:TMV; WCult:W

**HUM 4.01 - From Modernism to Postmodernism**

Instructor: Milich

Fredric Jameson once described postmodernity as “the effort to take the temperature of the age without instruments and in a situation in which we are not even sure there is so coherent a thing as an ‘age,’ or ‘zeitgeist’ any longer.” Taking the temperature of the age through a comparative reading of modern and postmodern texts, we will try to seize the change from one era and movement to the other by way of elucidating a number of modern and postmodern concepts such as “representation” or “literary self-reflexivity,” “the world as text,” “the death of the author” or “the end of meta-narratives.” Movies, art works, essays and some theoretical texts will enhance the literary readings, which include texts by modern and postmodern writers such as Abish, Fowles, James, Stein, and Woolf. The feature that characterizes and associates the two movements best is their awareness for how form impacts content, or, as Gertrude Stein said, “how writing is written.” The world comes into being and takes shape in the words we use, the texts we write, the images we produce, the movies we shoot, or the maps we draw to name only some of the signifying systems that give the universe a form.

Distributive: Dist:LIT; WCult:W

**HUM 4.02 - The Sixties**

Instructor: Balmer

With the possible exception of the Civil War, no period of American history was more transformative than the era from 1963 to 1974, commonly referred to as "The Sixties." As the nation mourned its slain president, John F. Kennedy, American society was convulsed with social revolutions ranging from the civil rights movement and the assertion of women's equality and gay rights to the emergence of a counterculture and its assault on traditional institutions. The era witnessed both Freedom Summer and the murders of Medgar Evers, Malcolm X, and Martin Luther King Jr., the assassinations of two Kennedy brothers, the shootings at Kent State and the emergence of Richard Nixon's Southern Strategy and his Silent Majority.

This course will be organized chronologically, with approximately one week devoted to each of the years of "The Sixties." Each week, lectures will provide the historical context, supplemented by a sampling of the music, art, and literature characteristic of the era.

Distributive: WCult:W

**Jewish Studies**

Chair: V. Fuechtner

Professors S. Ackerman (REL), S. Heschel (REL), I. Kacandes (GERM), L. D. Kritzman (FRIT), S. Magid (JWST); Associate Professors E. Z. Benor (REL), T. El-Ariiss (MES), V. Fuchtnr (GERM), M. F. Zeiger (ENGL), J. Smolin (MES), U. Greenberg (HIST), Y. Komska (GERM); Adjunct Professor E. Fishere (MES), S. E. Kangas (ARTH), B. S. Kreiger (ENGL), K. F. Milich (COLT); Visiting Professors, B. Avishai (GOVT), M. Caplan, I. von de Lühe; Post-Doc Fellow: A. Simon (MES).

The Jewish Studies Program serves to provide a multidisciplinary focal point for the various courses in Jewish history, religion, literature, and culture that are given at Dartmouth as well as to sponsor special course offerings (including those by the annual Brownstone Visiting Professor) and a variety of academic activities related to the discipline. The program currently offers a minor.

To view Jewish Studies courses, click here (p. 473).

**Jewish Studies Minor**

The minor is designed to offer a general introduction to the historical and cultural experience of Jews throughout the world, and to Jewish thought, literature, and contemporary political and social issues. At the same time, it provides the opportunity for students who wish to do more intensive work in a single discipline. Those completing the minor are encouraged, but not required, to obtain at least a working knowledge of Hebrew (HEBR 3, or equivalent).

Requirements: A total of six courses, which must include:

Two Introductory courses

JWST 4/REL 4, Religion of Israel: The Hebrew Bible (Old Testament), or JWST 6/Religion 6, Introduction to Judaism

And

JWST 10/HIST 94.8, History and Culture of the Jews I: The Classical Period or JWST 11/History 94.9, History and Culture of the Jews II: The Modern Period

One course in the Literature, Language and Culture of the Jewish People

Three courses chosen from the other course offerings in the program, selected in consultation with the advisor.
JWST - Jewish Studies Courses

To view Jewish Studies requirements, click here (p. 472).

JWST 4 - Religion of Israel: The Hebrew Bible (Old Testament)

Instructor: Ackerman

An introduction to the religion of ancient Israel through an examination of a number of the books of the Old Testament (Hebrew Bible), including Genesis, Exodus, Joshua, Samuel, the Psalms, Job, and the prophets. Attention will also be given to the religion of Israel’s Phoenician and Mesopotamian neighbors. Open to all classes.

Cross-Listed as: REL 004
Distributive: Dist:TMV; WCult:W

JWST 6 - Introduction to Judaism

Instructor: Magid

This course offers an introduction to Judaism by examining three of its central spiritual manifestations: (1) development, observance, and study of the Halaka (religious law); (2) philosophical contemplation; and (3) mystical experience and theosophical speculation. Ancient and modern challenges to the tradition will be studied in some detail, and an attempt will be made to determine what might constitute a unity of such a diverse tradition. Open to all classes.

Cross-Listed as: REL 6
Distributive: Dist:TMV; WCult:W

JWST 10 - History and Culture of the Jews I: The Classical Period

A survey of the history and culture of the Jews from the post-Biblical period to the Middle Ages.

Cross-Listed as: HIST 94.08 MES 16.15
Distributive: Dist:SOC; WCult:W

JWST 11 - History and Culture of the Jews II: The Modern Period

A continuation of JWST 10, but may be taken independently. This course provides a survey of Jewish history and culture from the European enlightenment to the establishment of the State of Israel.

Cross-Listed as: HIST 94.09
Distributive: Dist:SOC; WCult:CI

JWST 13 - Jews and Race

Instructor: Magid

The question of Jewish difference has been foundational in the formation of both Christendom and Islam. Of course, the question of race, and the racialization of the Jews, is often thought to be modern phenomenon when Race Science became prominent in the nineteenth century. But lately scholars have begun to re-think the category of race in connection with modernity and to reconsider race as a construct that extends back at least into the Middle Ages.

This course will look at the long historical trajectory of Jews and race, beginning in the Middle Ages and focusing primarily on European modernity, America, including the complex alliance of Jews and Blacks from slavery to BLM, the role of race in the Israeli/Palestinian conflict and the rise of Islamophobia. The goal of this course is to better understand the nature of Jews as a *genos/race/ethos/people* as they are labeled by others as well as how they self-identify. Jews identified as a “race,” and were identified as such by others, until the 1930s, after which *ethnos* served as a substitute. The question of “whiteness” loomed large for Jews in America; are Jews white, and if so, what are the implications of their “whiteness”? Finally, we will explore more recent iterations of this vexing issue in contemporary politics that includes “Jews of Color,” Zionism, Israel/Palestine, conversion to Judaism, and progressive politics in America.

Cross-Listed as: AAAS 65.06
Distributive: Dist:INT or TMV; WCult:W

JWST 15.01 - Silence, Exile, and Cunning: Comparing Jewish and African Diasporic Literatures

Instructor: Caplan

The diasporic subject is by definition a dislocated subject. This dislocation manifests itself not only with respect to space, but also in relationship to history, language, political power, and above all in the psychological relationship that diasporic subjects maintain with themselves. This course will focus on two primary examples of diaspora in the late nineteenth and twentieth centuries, Jews and Africans, to examine the multiplicity of relationships among language, literary structure, as well as gender and sexuality that inform the construction of diasporic literatures. Although this course cannot be comprehensive in its survey of either Jewish or African literatures, it will offer suggestive juxtapositions of the two to emphasize commonalities between their historical and political experience. It will also explore how the once exceptional condition of diaspora increasingly has become representative for more and more people in the world today.

Cross-Listed as: AAAS 65.65 COLT 51.05 MES 16.39
Distributive: Dist:LIT; WCult:NW
**JWST 21 - New York and the Metropolitan**  
*Imagination in Twentieth-Century American Jewish Literature*  
Instructor: Caplan  
This course will offer an introduction to American Jewish culture by focusing on the perception of New York City among successive generations of Jewish writers, performers, and cultural activists. Although our focus will be primarily on literary sources, in English and translated from Yiddish, we will also consider memoirs, political documents, journalism, music, and film. The topics we will consider include: How are the ambivalences of immigration expressed among Jewish immigrants writing, alternately, in English or in Yiddish? How does the city provide new modes of expression for Yiddish writers? How does music offer a venue for Jewish performers to enter an American “mainstream” while preserving an audible sense of Jewish difference?  
How do Yiddish writers address the Holocaust, and what challenges emerge when translating Yiddish into English after the Holocaust? How do post-War Jewish intellectuals, the children of immigrants, critique their society and influence the development, and denouement, of American liberalism? How does the “sexual revolution” challenge notions of a distinct Jewish ethnicity and ethos, and what strategies do Jewish authors develop to critique changing mores and morals from a specifically Jewish perspective? How does an avant-garde Jewish theatre contribute to a contemporary understanding of American culture as multi-cultural, hybrid, and hyphenated?  
Cross-Listed as: ENGL 53.46  
Distributive: Dist:LIT; WCult:CI

**JWST 34.03 - German-Jewish History (in English)**  
This course is an immersion in the interdisciplinary approach to the history, culture, religion, and philosophy of Jews in Berlin, Prussia, Germany, and Central Europe from the late 18th century to the present day that will include reading primary and secondary sources and visiting the actual sites where the historical events occurred.  
Cross-Listed as: GERM 44.06  
Distributive: Dist:INT; WCult:CI

**JWST 35 - Remembering Jewish Lives**  
This is an interdisciplinary course on Jewish Lives in Central Germany that will focus on some remarkable Jewish intellectuals, painters, writers, political leaders and scholars who lived in German-speaking Central Europe. Their lives will be studied through novels, essays, autobiographies, and personal letters, but also through the arts – film, music, poetry, paintings, and sculpture. Taught in Berlin as part of the JWST/GERM FSP, this course will make extensive use of the city, its memorials, physical locations of historical events, and its remarkable current population of Jewish intellectuals who will give guest talks to the class, sometimes in conjunction with the History course taught during the FSP.  
Distributive: Dist:SOC; WCult:CI

**JWST 37.02 - Nazis, Neonazis, Antifa and the Others:**  
*Exploring Responses to the Nazi Past*  
Instructor: Kacandes  
Why do the Nazis remain the world’s epitome of evil? What did they actually do? And how specifically are they remembered, depicted, emulated, despised or ignored since the catastrophes of the mid-twentieth Century? In this course we will examine the main events connected with the Second World War, the genocide of European Jewry and Roma-Sinti, forced resettlements of various populations, and the Allied attacks on the German civilian population. We will analyze the different stages of coming to grips with that past on the part of German and some other postwar societies, by examining together a number of controversies like those surrounding the Nuremberg, Frankfurt, Eichmann and Barbie trials, the campaign to build a Holocaust memorial in Berlin, Neonazism, the Wehrmacht photo exhibition, and the current campaign to remember German civilian casualties and losses. Approaching our topic with interdisciplinary and comparative methodology, that is, by utilizing history, journalism, video testimony, music, literature, and art, including film, photography and architecture, students will develop their own perspectives on the formation of postwar German identity and why Nazis remain the epitome of evil. An individual midterm project will allow students to practice the skill of summarizing different sides of a debate, and a final group project will invite students to solidify what they have learned in the course about the formation of national identity by creatively staging a contemporary debate about the Nazi past.  
Cross-Listed as: COLT 64.01 GERM 015  
Distributive: Dist:LIT; WCult:CI

**JWST 40.01 - Politics of Israel and Palestine**  
Instructor: Avishai, Magid  
This course explores the century-old conflict as seen from the political structures and changing narratives of Israelis and Palestinians, including the Zionist movement and the responses of the Palestinian Arab community to it; the formation of the Arab national movement as a whole—and within this, the claims of Palestinians before and after the British Mandate; the founding of the state of Israel and the formation of the post-1948 Palestinian national movement; the aftermath of the 1967 war; the start of the Israeli occupation and the latter’s impact on Israeli institutions, economy, and political parties; and the Palestine...
Liberation Organization and the founding of Hamas. We will explore contemporary political and economic developments in light of the global forces operating on the region, and consider the plausibility of a two-state solution.

Cross-Listed as: GOVT 40.09 MES 12.09
Distributive: Dist:INT or SOC; WCult:NW

**JWST 40.07 - Introduction to Middle East Politics**
Instructor: Fishere

This is a gateway course to the political life of the Middle East. It will introduce students to the main political issues and dynamics of the region, including: - Conflict and civil wars, from the Arab-Israeli conflict to the Syrian collapse - Security arrangements, especially in oil-rich countries - The political economy of (mal)development - Political ideologies and the conflict between liberalism, nationalism and Islamism - International politics and the American presence in the region - Rivalries and alliances among Middle Eastern powers, including Iran and Turkey - The return of authoritarianism and stalled democratic processes - Terrorism - Anti-colonialism We will cover the basic contours and intellectual debates around these issues, analyzing the main texts tracing their development. The aim of this course is not only to familiarize students with the basic political features of the Middle East but also to equip students with the tools necessary to pursue future academic and analytical work on the politics of the region.

Distributive: Dist:INT or SOC; WCult:NW

**JWST 44 - The Making of the Modern Middle East**

This panoramic course surveys major developments in Middle East history, politics, and society. Covering more than a two hundred year stretch, we will move across an expansive geography encompassing North Africa, the Levant, the Arabian Peninsula, and parts of Central Asia. Throughout this journey, particular attention will be paid to five important themes: imperialism, modernization, nationalism, Islam, and revolution. In the process of navigating these seminal topics, we will develop a more nuanced understanding of the modern Middle East and a greater appreciation for the insights offered by primary sources, from poems and national speeches to songs and motion-pictures, into the region’s dynamic past. We will begin with a basic question – what and where is the Middle East? – prior to exploring the impact, importance, and mechanics of empires (Ottoman, French, British). Once elucidating this imperial backdrop, we will study sweeping reforms, struggles for independence, and the fashioning of nation-states, before examining a series of revolutionary moments, America’s presence in the Middle East, and the “Arab Spring” and its aftermath. Whenever possible, we will strive to illuminate ordinary people, as opposed to only elite actors, who contributed to the making of the modern Middle East.

Cross-Listed as: MES 2.01 HIST 90.04

**Distributive: Dist:INT or SOC; WCult:NW**

**JWST 45 - Soundscape of the Middle East**
Instructor: Simon

In recent years, scholars have started to question the conspicuous “silence” pervading many academic works that privilege one sense – sight – to the detriment of all others. This seminar builds upon these long overdue efforts by critically engaging the writings of historians, anthropologists, ethnomusicologists, and media experts with the aim of uncovering how the study of sound may radically enrich our understanding of the modern Middle East. Beginning with an overview of sound studies, we will consider where multi-sensory scholarship on North Africa, the Levant, and the Gulf fits into this burgeoning field of inquiry. After situating the Middle East within a body of literature that is at once innovative and highly interdisciplinary, we will then shift to exploring several key themes, including religion, popular culture, mass media, gender, space, and the environment, in relation to the region’s soundscapes. We will listen to audiocassette sermons in Egypt, jazz in Istanbul, and the din of warfare in Iraq, among many other acoustic items, to gain a greater appreciation for the centrality of sound in people’s everyday lives and its significance in the domain of Middle Eastern studies.

Cross-Listed as: MES 10.10
Distributive: Dist:INT or ART; WCult:NW

**JWST 51 - Freud: Psychoanalysis, Jews, and Gender (in English)**
Instructor: Fuechtner

This course will examine how Freud’s own writings, his biography, and his biographers have shaped the perceptions of psychoanalysis as a specifically Jewish theory and practice. Through a reading of Freud’s texts on gender, sexuality, and religion, we will trace the connection between psychoanalysis, Jewishness, and gender that have impacted theoretical discussion. We will explore critique, including Horney, Reich, and Marcuse, and recent debate on the status of Freud in the U.S.

Cross-Listed as: GERM 42.06 WGSS 67.01
Distributive: Dist:SOC; WCult:CI

**JWST 53 - Gender and Judaism**
Instructor: Greenblatt

Examining the intersections between gender, religious practice, cultural identity, and personal belief, this class will draw upon contemporary gender theory, religious texts and contemporary interpretations of Jewish thought and culture to examine the construction of Jewish identity through a feminist lens. Authors will include Alder, Boyarin, Heschel, Gilman, Peskowitz, Levitt and
JWST 53.01 - Gender and Jewish-German Culture
Instructor: von der Lühe
The intersection of gender with Jewish German culture became one of the most important topics in cultural and literary research during the last decades. We will read and discuss lyrical and political, essayistic and autobiographical texts written by authors under extremely different political and historical circumstances; and we also will discuss theoretical and methodological problems in the field of Jewish German history and culture. Taught in English translation. Students taking the class for major or minor credit in German Studies will have the option to enroll in an additional German-language discussion section.
Cross-Listed as: GERM 42.13
Distributive: Dist:LIT; WCult:CI

JWST 61 - Modern Judaism
Instructor: Magid
This course will trace the ways Jews in modernity made sense, challenged, adopted, and adapted modern thought, culture, and politics in their recalibration of Judaism. The role Jews played in modernity in well-known. But how did Jews re-think Judaism in ways that enabled it and them both to survive the challenges of modernity and also retain a sense of difference enough to enable Jews to assimilate yet not disappear. In this course we will look at some of the major trends and thinkers from the 17th through the 21st centuries as they struggled to reinterpret Judaism for the modern age. Open to all classes.
Distributive: Dist:TMV; WCult:W

JWST 62 - Jewish Mysticism
The course examines the nature of claims to mystical experience or knowledge that appear in various aspects of the Jewish tradition, with primary focus on the enchanted and demonic worlds of the Kabbala. Forms of ecstasy and magic will be studied, along with their theoretical and social backgrounds and their impact on elitist and popular Jewish practice. Open to all classes.
Cross-Listed as: REL 23
Distributive: Dist:TMV; WCult:W

JWST 85 - Independent Study and Research
Instructor: individual faculty
This course offers qualified students of Jewish Studies the opportunity to pursue work on a topic of special interest through an individually designed program. Requires permission of the instructor and the Chair.

Language and Advanced Language Study Abroad Program
Departments of French and Italian, German Studies, Russian, and Spanish and Portuguese, and the Asian Societies, Cultures and Languages, and Middle Eastern Studies interdisciplinary programs are included in this section.
A student may choose to satisfy the Language Requirement through a combination of two preparatory courses at Dartmouth and one term of study abroad. It is preferred that students take the preparatory courses as close to departure as possible. After satisfactory completion of the required language prerequisite, the student will spend one term abroad studying the language and culture. Language Study Abroad (LSA) is available in France, Germany, Italy, Argentina, or Spain. Advanced Language Study Abroad (LSA+) is available in Brazil, China, France, Italy, Japan, Morocco, and Russia. Students must have the equivalent of language 3.
Possible enrollment is limited by the number of spaces available; all students who wish to participate in an LSA or LSA+ program must receive the department's minimum grade in Arabic, Chinese, French, German, Italian, Japanese, Portuguese or Spanish in their preparatory course or courses. Students will be selected on the basis of their application forms and letters of reference; actual participation is subject to maintenance of satisfactory academic standing. Admission to these programs cannot be guaranteed. Formal applications are available online from the Guarini Institute's website. It is the student's responsibility to contact Guarini Institute for application deadline information. Students interested in an LSA but unable to participate in their second year for curricular reasons should review the Regulations section of this catalog.

Latin American, Latino and Caribbean Studies
Chair: Matthew J. Garcia
Professors: L. Baldez (LALACS, Government), R. Biron (Spanish and Comparative Literature), R. Bueno (Spanish and Portuguese), M. K. Coffey (Art History), M. Garcia (LALACS and History), G. Germunden (Comparative Literature, Film and German), D. L. Nichols (Anthropology), B. Pastor (Spanish and Portuguese), S.
I. MAJORS AND THE MINOR OPEN TO THE CLASSES OF 2023 AND EARLIER

Spitta (Spanish and Portuguese), R. Wright (Geography); Associate Professors: J. Ariza (Spanish), S. Díaz (Spanish and Portuguese), D. García (LALACS), A. Gómez (Spanish and Portuguese), C. Minchillo (Spanish and Portuguese), L. Ogden (Anthropology), I. Reyes (Spanish and Portuguese), A. Santana (Spanish and Portuguese); Assistant Professors: J. Cuellar (LALACS), M. DiBlasi (LALACS) C. Kivland (Anthropology), J. Meléndez-Badillo (History), E. Morsi (AMEL), P. Voekel (History); Visiting Professor: P. DeShazo (LALACS and Government); Visiting Assistant Professor: C. Gómez (LALACS and Sociology); Senior Lecturer, D. J. Moody (Spanish and Portuguese); Lecturer F. A’Ness (WGSS), M. Greenleaf (Anthropology), J. Quintana-Navarette (Spanish and Portuguese); Fellow: J. Cuellar.

Latin American, Latino and Caribbean Studies (LALACS) is an interdisciplinary program.

The standard major and minor in LALACS offer students the option of focusing their studies on Latin America and the Caribbean (LACS), Latino Studies (LATS), or a combination of both.

The LACS/LATS major and minor are designed to ensure both a broad exposure to Latin American, Latino, and Caribbean Studies and the theoretical and empirical rigor of study in a single discipline or area of scholarship. The standard major consists of ten (10) courses, not counting the prerequisite.

To view Latin American and Caribbean Studies courses, click here (p. 478).
To view Latino Studies courses, click here (p. 487).

Prerequisite: Requirement for the LACS/LATS Major and Modified Major

Language Competency—Demonstrated competency in Spanish or Portuguese equivalent to SPAN 3 or PORT 3. This requirement must normally be satisfied before the end of the sixth term. Students are strongly encouraged to study a second language, preferably Portuguese, Spanish, or French. Students planning to take a Foreign Study Program (FSP) must fulfill departmental requirements.

Requirements for the LACS/LATS Major
1. Two of the four survey courses: LACS 1, LACS 4, LATS 3, or LATS 5
2. Seven LACS and/or LATS courses including associated courses from our list

a. Of the seven courses, at least two must be from the Social Sciences and at least two must be from the Humanities
b. Four of the seven courses must constitute a concentration that reflects a disciplinary or scholarly focus that can combine courses from one or more departments and programs. All four-course concentrations must be approved by the LALACS Chair.

3. A culminating experience, consisting of one of the following
   a. A LACS or LATS Senior Seminar
   b. An approved independent study with a LALACS professor
   c. A senior honors thesis in LACS or LATS

Students may fulfill their Humanities requirement by taking the Spanish FSP in Argentina or the Portuguese FSP in Brazil. Of the three FSP credits, two may be counted towards the major.

LALACS Modified Major
The Modified Major consists of six courses in LALACS plus four courses above the prerequisite level in one or more other department(s) or program(s). Of the LALACS courses one must be an introductory survey and another must be a culminating experience. Students wishing to modify their LALACS major must submit a written rationale that makes clear the coherence and purpose of their modified major. This rationale must be reviewed by, and approved by the Chair, and must also be submitted to the Registrar.

Requirements for the LALACS Modified Major
A. One survey course: LACS 1, LACS 4, LATS 3 or LATS 5.
B. Six LACS and/ or LATS courses including associated courses from our list.
C. A culminating experience, consisting of one of the following:
   • A LACS or LATS Senior Seminar
   • An approved independent study with a LALACS professor
   • A senior honors thesis in LACS or LATS

Of the six courses, at least one must be from the Social Sciences and at least one must be from the Humanities.

Courses Counting Toward A LACS/LATS Minor
Students wishing to pursue a minor in LALACS must take two of the survey courses (LACS 1, LACS 4, LATS 3, or LATS 5) plus a total of four additional courses, normally from two different regions and two different disciplines.

**Modifying Another Major with LACS/LATS**

Students wishing to modify another major with LACS/LATS must take one of the survey courses (LACS 1, LACS 4, LATS 3, or LATS 5) and four additional courses from at least two different disciplines.

**Honors Program**

Senior Honors Thesis Prerequisite and Application Process:

1. Determine that you have successfully completed two of our survey courses before the end of your junior year: LACS 1, LACS 4, LATS 3, or LATS 5.
2. Determine that you meet the minimum grade point average (GPA) of 3.3 for all Dartmouth courses, and 3.3 in the LACS/LATS major.
3. Obtain a faculty advisor.
4. Write a thesis proposal, have it signed by your faculty advisor, and submit it to the LALACS Program Administrator, Laurie Furch, by May 15 of the junior year.
5. Enroll in LACS/LATS 98 in the fall of your Senior year, and LACS/LATS 99 in the winter. If necessary, LACS/LATS 99 may be taken again in the spring. A grade of “Ongoing” will be assigned for LACS 99/LATS 99 for the winter term, and the final grade will be assigned at the end of the spring term.
6. At the end of Fall term students will write a five- to seven-page thesis prospectus. The prospectus should be presented to the LALACS Program Office no later than the first week of winter term to be approved by the LALACS Steering Committee.
7. Theses must be completed by the eighth week of spring term of the senior year. Students missing this deadline may be liable to lose eligibility for honors.

**ASSOCIATED COURSES FOR LACS/LATS**

**ASSOCIATED COURSES FOR LACS/LATS**

Courses with a central focus on Latin America, Latino and the Caribbean offered by various departments. These classes count toward the LACS/LATS major.

- Anthropology 35: Maya Indians under Mexican and Guatemalan Rule
- Anthropology 37: Legacies of Conquest: Latin America
- Government 80: Readings in Government
- Portuguese 12: Introduction to Brazilian Literature
- Portuguese 20: The Portuguese-Speaking World and its Literatures and Cultures: The Definition of an Identity
- Portuguese 25: Advanced Portuguese Composition
- Portuguese 35: Advanced Studies in Brazilian Culture and Society (DFSP)
- Portuguese 36: Studies in Contemporary Brazilian Literature (DFSP)
- Portuguese Courses listed below: count when main content is Brazil
- Portuguese 60: The Portuguese-Speaking World: Literature and Culture by Period
- Portuguese 60.03 America & the Oblivid Gaze
- Portuguese 61: The Portuguese-Speaking World: Genre
- Portuguese 62: Film, Media, Performance and the Arts in the Portuguese-Speaking World
- Portuguese 63: Special Topics: Literary and Cultural Productions in the Portuguese-Speaking World
- Portuguese 80: Seminar
- Portuguese 87: Independent Study
- Spanish 33: Argentine Civilization: Society, Culture and Politics in Argentina
- Spanish 35: Studies in Spanish-American Literature & Culture
- Spanish Courses listed below: count when main content is Latin American/Latino.
- Spanish 40: Hispanic Literature by Culture and Period
- Spanish 43.05: Drawn to Resist: The Latin American Comics
- Spanish 45.02: Diaspora and Economic Imaginaries in Hispanic Caribbean Literature
- Spanish 50: Politics of Masculinity: Latin American Narrative, Film and Politics
- Spanish 50.01 Of Macho and Malinches
- Spanish 55: Hispanic Literature, Culture, and Politics
- Spanish 55.04 Humor and Politics in Latin American Literature, Film and Culture
- Spanish 55.06 Slaughterhouses. The Life and Death of Humans and Animals in the Southern Cone
- Spanish 55.07 Revolution and Art in Mexico
- Spanish 55.08 The New Argentine Short Story
- Spanish 55.09 Revoltosos/as: Forms of Rebellion and Revolution in Imperial Spain and Spanish America
- Spanish 60: Race and Ethnicity in Hispanic Studies
- Spanish 63: Latin American Film Studies
- Spanish 63.01 Latin American Film
- Spanish 63.05 Latin American Film: Brazil
- Spanish 65.05 Staging Globalization in Latin America
- Spanish 65.06 Crossing the US-Mexico Border: Myths and Icons of Hybridity
- Spanish 65.07 Staged Rebellions: Dissidence in Latin American Theatre
- Spanish 65.08 War Pics: Photography in 19th Century Latin American Conflicts
- Spanish 80.05 Senior Seminar, Latin American

**LACS - Latin American and Caribbean Studies Courses**

To view Latin American and Caribbean Studies requirements, click here (p. 476).
LACS 1 - Introduction to Latin America and the Caribbean
Instructor: Voekel
This interdisciplinary course introduces students to the geographical conditions, historical roots, and enduring cultural diversity of Latin America and the Caribbean. After a brief survey of the physical and cultural geography of the region, the course examines the history of selected countries to highlight the way European conquest and colonialism have molded Latin American institutions and attitudes. The course then turns to particular case studies of contemporary life and society to analyze the ongoing problems of ethnicity, inequality, and political repression engendered by the region's colonial past. Finally, the course draws on these historical and anthropological understandings to assess recent economic, social, and political developments in Latin America. By juxtaposing historical realities with their living consequences, the course presents a multi-disciplinary perspective on the nature, dynamics-and future prospects-of the many peoples who inhabit this vast and diverse continent.
Distributive: Dist:SOC; WCult:NW

LACS 1.10 - Modern Latin America
Instructor: Melendez-Badillo
This course presents the histories of Latin American and Caribbean societies, peoples, and nations from the onset of the Haitian Revolution in 1791 to the present. By placing Haiti at the center of the Age of Revolutions, this course also locates the Caribbean region within the Latin American context. We will study the region’s nation-building processes using an intersectional lens to explore how different people interpreted them through their own gendered, classed, and racialized identities.
Cross-Listed as: HIST 05.13
Distributive: Dist:SOC; WCult:NW

LACS 4 - History, Culture and Society: The Many Faces of Latin America
The Spanish discovery and conquest of this continent created Latin America and the Caribbean out of the diverse and complex realities of the pre-Columbian world. Since colonial times Latin American and Caribbean cultures have developed against a background of cultural repression, racial conflict, political domination, colonial exploitation, and gender inequality. And yet, in the midst of all this turmoil, Latin America and the Caribbean have produced an extraordinary variety and wealth of artistic creations, ranging from literature to the visual arts, from music to film. In this course we will turn to some of the works by Latin American and Caribbean artists and writers in an attempt to illuminate and explore some of the wonders of the cultural dynamics that shape the many faces of what we call Latin America and the Caribbean.

Cross-Listed as: AAAS 16
Distributive: Dist:LIT; WCult:NW

LACS 7 - First Year Seminars in Latin American, Latino and Caribbean Studies
Instructor: S. Diaz
Consult special listings
Distributive: Dist:LIT; WCult:NW

LACS 8 - Politics & Culture in Transnational Central America
Instructor: Cuellar
This course offers an interdisciplinary introduction to the transnational histories, politics, and cultures of 20th and 21st century Central America. Using select case studies alongside audiovisual material that reflects the tensions of state and racial formation in the region, we will cover: US imperialism, the “Central American Wars”, environmental crisis, migration and insecurity, narco-trafficking and youth gangs, social movements against extractivism, and key issues around (Afro-) indigeneity and environment. Bringing mixed-method approaches to the study of the people from Belize, Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua and Panama will allow us to explore the centrality of the isthmian region to the development of hemispheric politics and these nations’ centrality to the formation of Latin American culture.
Distributive: Dist:SOC; WCult:NW

LACS 22.11 - Fighting With Your Mother: What generational conflict in Latinx Literature can teach us
Instructor: DiBlasi
Without fail, Latinx coming of age narratives involve some kind of fight between the protagonist and their mother. These fights usually stem from generational differences in ideas about religious faith, education, sexuality, labor, and community. Through the tension between mother and protagonist we always learn something about how we as a society perceive threats to an imagined Latinx future. Whether these threats are real or not, they speak to the very different ways we imagined ideal Latinx futurity. This cultural studies course closely examines these fights, tensions, and disagreements in order to better understand Latinx futurity. We will think through these pivotal moments historically, politically, figuratively, and literally in terms of the movement of Latinx people throughout the United States as well as the ongoing role of Latinx cultural production in society.
Distributive: Dist:LIT; WCult:CI

LACS 24 - Mexican Cinema
Instructor: D. Garcia
This course serves as an introduction to Mexican cinema and the global system of filmmaking in which it developed. We will examine the history of Mexican film, filmmaking practices, aesthetics and business concerns, as well as audiences inside and outside of Mexico. One central point of inquiry will be the extent to which Mexican cinema was truly "national." We will question the concept of "national cinema" all the while analyzing the extent to which issues in Mexican politics, society, and culture were reflected on and influenced by the screen. The transnationality of Mexican film will be central to our investigation as we examine the influence of the United States and Hollywood during Mexican cinema's development. Students will learn about the various styles and genres of Mexican film and the theories with which film scholars have interpreted them. Among the filmmakers to be studied are Sergei Eisenstein, Fernando de Fuentes, Emilio “El Indio” Fernandez, Luis Buñuel, Alfonso Arau, Maria Novaro, Natalia Almada, Guillermo del Toro, Alfonso Cuárón, and Alejandro Gonzales-Iñárritu. Proficiency in Spanish is not required.

Cross-Listed as: FILM 42.14
Distributive: Dist:ART; WCult:NW

**LACS 24.30 - Latinx Stage and Screen**

This course will examine the Latinx stage and screen, focusing specifically on musicals that portray Latinx lives. We will focus on canonical works—including West Side Story, Zoot Suit, and Hamilton—in order to deepen our knowledge of their form, production history, historical reception, and contemporary place in American culture. We will take an interdisciplinary approach, drawing our reading assignments from the fields of Ethnic Studies, American Studies, Performance Studies, and Film and Media Studies, in order to analyze these productions as they traveled from stage to screen (and sometimes, back to the stage) and the representational and cultural politics involved in that shift. Finally, we will explore not only the musicals themselves, but also the historiography that has informed our understanding of them. Writing assignments will ask the students to reflect on the evolution of scholarly arguments regarding these canonical works.

Cross-Listed as: FILM 47.29 THEA 10.27
Distributive: Dist:SOC; WCult:NW

**LACS 24.50 - Latinx-exploitation**

Instructor: D Garcia

This course serves as an introduction to the history of Latinx cinema, Latinx film spectatorship, and exploitation cinema in the United States. Latinx audiences have long been an interest and target of the Hollywood studios. Since the beginning of sound in film, the studios grappled with reaching this linguistically and culturally-diverse demographic. Since the late 20th century, the studios have widely acknowledged the box office power of that group. Time and again, however, the Hollywood industry has failed to accurately identify and engage Latinx peoples on both sides of the US-Mexico border. Applying theories of racialized spectatorship and performance and film genre and authorship, we will interrogate this historically troubled relationship and grapple with its consequences for Latinx representation and inclusion in American cinema.

Cross-Listed as: FILM 41.18
Distributive: Dist:ART; WCult:NW

**LACS 24.70 - Solo Performance**

This course will introduce and engage the history, texts, topics, theoretical guideposts, and landmark figures/performances central to the genre of solo performance. Working between critical examination and practice, participants will analyze the form and content of leading solo performers while also composing a series of short exercises that activate solo performance strategies and methods. The course will culminate in the creation of a participant's self-authored, short solo performance piece.

Cross-Listed as: THEA 025
Distributive: Dist:ART

**LACS 30.06 - New Latin American Cinema**

Instructor: Gemunden

With emergence of filmmakers such as Alejandro Inarrirtu (México), Lucrecia Martel (Argentina), and José Padilha (Brazil), the last decade has seen a creative boom in Latin American cinema that includes art house cinema, blockbusters, documentary, and experimental film. Beginning with a quick overview of key forerunners, this course will focus on the major directors, genres and aesthetic trends that characterize the new Latin American cinema. On the one hand, we will pay special attention to the distinct national cinemas: the different historical and cultural contexts out of which they emerge; and the different aesthetics that this gives rise to.

Cross-Listed as: COLT 52.02 FILM 42.03 INTS 17.12
Distributive: Dist:INT

**LACS 30.08 - Race, Class, Gender and Sexuality in Contemporary Brazilian Film**

In this course film will be viewed as text and used to analyze discourses around race, sex, gender; and class in contemporary Brazil. It is the hope that film will offer students an additional cultural context to critically examine the development of nation and national ideologies such as "the myth of racial democracy." Class discussions based on scholarly readings and film screenings will focus on how Brazilians view themselves and the construction and function of social institutions within the contemporary nation.
environmental protection and economic justice. The polarized public debates on race, class, political more and more tense due to a series of street protests and Since 2013, the climate in Brazilian society has become political, and economic issues in contemporary Brazil. This class will be taught in English and will explore social, Contemporary Brazil

LACS 30.11 - Social, Political, and Cultural Trends in Contemporary Brazil

This class will be taught in English and will explore social, political, and economic issues in contemporary Brazil. Since 2013, the climate in Brazilian society has become more and more tense due to a series of street protests and polarized public debates on race, class, political representation, democracy, religion, gender, sexuality, environmental protection and economic justice. The present scenario in Brazil will be discussed in relation to historical and cultural contexts. Materials for the course will include films, documentaries, music, and a wide variety of readings (mainstream media, blogs, academic essays, official documents, fiction). Invited guests (scholars, activists, journalists, artists) will deliver lectures, in presental or remote way.

Cross-Listed as: AAAS 86.04 PORT 35.01
Distributive: Dist:SOC; WCult:NW

LACS 30.12 - Arts Against Empire: Fictions of Revolution and Solidarity in the Americas

Instructor: Stuelke

Anticolonial struggle and movements for social justice have always been accompanied by a range of cultural practices, including fiction, art, music, film, murals, theater, graffiti, and theory. This course explores that tradition of cultural activism, considering attempts to narrate revolutionary formation, imagine solidarity, and write decolonial theory. We will begin by examining revolutionary nationalist and anti-imperialist culture in the Americas—ranging from the memoirs of Che Guevara and Malcolm X to Nuyorican and Chicano Movement literature—in order to consider the formation of revolutionary subjects, and how 20th century ideas of revolution were raced and gendered. We will then consider how novelists, artists, photographers, filmmakers, and activists attempted to imagine solidarity with revolutionary movements and suffering others in the Americas, from Central America solidarity photography to performance art in solidarity with Guantanamo Bay prisoners. We will pay special attention to the work of feminist and queer solidarity artists, writers, and performers. Finally, we will examine contemporary activist cultural projects, such as PanAmerican public art road trips and hashtag-activism. Students will have the opportunity to produce a creative or multimedia final project.

Cross-Listed as: ENGL 63.04
Distributive: Dist:INT or LIT; WCult:W

LACS 30.13 - The Tropical Fantastic: Science Fiction, Fantasy, and Horror in Brazilian Literature and Film

Magic transformations. Hauntings. Mystical worlds. Brazilian authors have been writing about the fantastic and unreal for centuries, a tradition that extends far beyond what has been characterized as “magical realism.” This course will explore this rich literature, both on its own and in a comparative perspective. In particular, we will examine the political, psychological, ecological, and historical questions that these works raise. How, for example, does fantastic literature shed light on psychoanalytic concepts such as the uncanny? How did Brazilian writers in the late 1960s use science fiction, horror, and fantasy to address the repression of the military dictatorship? What kinds of broad theoretical issues arise when looking at this genre? We will read works from “canonical” authors such as Machado de Assis, Lygia Fagundes Telles, Mário de Andrade, and Guimarães Rosa as well as those by lesser-known and up-and-coming writers, comic artists, and filmmakers.

Cross-Listed as: COLT 52.04
Distributive: Dist:LIT; WCult:NW

LACS 30.14 - The World Turned Upside Down: An Indigenous History of the Andes after the Spanish Invasion

Instructor: Mikecz

This course will explore the tension between insiders and outsiders, colonizers and the colonized, Westerners and Natives. Students will examine not only what these tensions meant for the people of the Andes—in the countries of Peru, Bolivia, and Ecuador (and to a lesser
extent Chile and Colombia) - but also in what ways similar phenomena occurred in North America and other parts of the world. Among other things, students will investigate differences between insider and outsider accounts, primary and secondary sources, history and archaeology, etc. - while acknowledging the strengths and limitations of these different sources and approaches.

Cross-Listed as: NAS 30.20
Distributive: Dist:SOC; WCult:NW

**LACS 30.15 - Media and the Activist Amazon**
Instructor: Broner

The course will foreground the role of Indigenous peoples in defending the Amazon while also investigating pressing issues such as extractivism and land demarcation. Texts from fields including anthropology, sociology, visual studies, and architecture will provide an interdisciplinary approach to media objects that range from a Netflix series about a detective who reads the forest to a virtual reality piece that allows you to become a kapok tree in Madre de Dios.

Distributive: Dist:SOC; WCult:NW

**LACS 36 - Maid in America: The Politics of Domestic Labor**
Instructor: A'Ness

In *Maid in America* we study the representation, history, and rights of domestic workers in the Americas with a focus on the United States, Brazil, Mexico, Chile, and Argentina. Specifically, we look at representation and rights from artistic, legal, and sociological perspectives. Using the theoretical frames of intersectional and transnational feminism we will analyze primary texts that include essays, manifestos, theater, and documentary film. Topics we will explore will include media representation and controlling images, migrant imaginaries, invisible labors, modern-day slavery, the feminization of migrant work, and labor organization and rights. The class will include a theater workshop component that will culminate in the public presentation of an original group performance titled: Making the Invisible Visible: The Politics of Domestic Labor.

Cross-Listed as: WGSS 30.05
Distributive: Dist:ART; WCult:CI

**LACS 38 - The Global Caribbean**
Instructor: Kivland

Paradise or plantation? Cultural destination or economic periphery? Capitalist birthplace or IMF delinquent? From the Columbian conquest to contemporary tourism, the Caribbean has borne the burdens and opportunities of being an intercontinental crossroads. Colonial governments, enslaved Africans, indentured servants, and foreign settlers have all made the Caribbean an exemplar of modernity and globalization—for better or worse. Drawing on social scientific, literary, and policy texts, this course offers an historically deep and geographically broad anthropology of the Caribbean.

Cross-Listed as: AAAS 83.08 ANTH 033
Distributive: Dist:SOC; WCult:NW

**LACS 39 - Black Agrarian Democracy: Haitian History from Revolution to the Fall of the Duvalier Dictatorship**

The course explores the historical struggle between democracy and authoritarianism in Haiti throughout its two hundred seventeen years of independence as a free black nation, which also makes the island one of the oldest sovereign countries in the Western Hemisphere. To understand the island’s history, students are expected to read what historians and writers have written about Haiti; and to read the primary letters of frantic French planters, rebellious African slaves, egalitarian peasants, entrepreneurial market women, conscientious revolutionaries, exuberant military generals, loquacious politicians, feared dictators, and dreaded militias through time. The course will, indeed, move through four important, though overlapping, historical moments. First, we begin with an examination of the 1791-1804 Haitian Revolution when enslaved Africans revolted against the French colonial planters to successfully abolish slavery and to achieve national independence. Second, we read through the formation of grassroots and institutional democratic traditions in the nineteenth century and how they were undone during the 1915-1934 US Occupation of Haiti, where US President Woodrow Wilson ordered the American military to invade Haiti and control the island for almost two decades. Third, we will explore how the undoing of democracy led to the rise of the Francois and Jean-Claude Duvalier dictatorship (1957-1971) and its dreaded militia called the tonton makout militia (often spelled in the following French orthography: tonton macoute). Finally, we will conclude the class by looking at how and why the Haitian peasantry overthrew the dictatorship to replace it with the democratically elected President Jean-Bertrand Aristide (1991).

Cross-Listed as: AAAS 61.05
Distributive: Dist:SOC; WCult:NW

**LACS 40.10 - Migrant Nation: Immigration and Racialization in the Making of the United States**

Instructor: Moreton

Current public discussions of immigration are deeply rooted in centuries-long conversations about who is allowed into the country and what it means to be an American. Drawing explicitly on the collective work of the “hashtag syllabus” movement, this course seeks to
contextualize current debates over immigration reform, integration, and citizenship by considering migration from multiple perspectives—not just Ellis Island, but the Rio Bravo, Angel Island, Congo Square, and the Spirit Lake Dakota Indian Reservation.

Cross-Listed as: HIST 31.02
Distributive: Dist: SOC; WCult: CI

LACS 42 - The Aztecs
Instructor: Nichols
Mexico City once the capital of New Spain overlies the remains of Tenochtitlan, capital of the Aztec empire. This course examines the development of the Aztec empire, the organization of Aztec society and religion, and the Spanish conquest of the Aztec. It ends with an introduction to Nahua society in the first century after conquest. We will also consider the varied perspectives of Aztec history offered by Nahua texts, archaeology, history, and art history. (ARCH)

Cross-Listed as: ANTH 21
Distributive: Dist: SOC; WCult: NW

LACS 43 - Olmecks, Maya, and Toltecs: Ancient Civilizations of Mesoamerica
Instructor: Nichols
The course begins by discussing how people first occupied Mesoamerica during the Ice Age and then examines the development of agriculture and early villages that laid the foundations for Mesoamerica's earliest complex societies, including the Olmecs. We then explore the Classic period civilizations of Teotihuacan, Monte Albán, and the Maya and the Postclassic city-states of the Toltecs, Mixtecs, and Maya and the Aztec empire at the time of the Spanish Conquest. (ARCH)

Cross-Listed as: ANTH 22
Distributive: Dist: INT or SOC; WCult: NW

LACS 44.40 - On Survivors, Memories, and Tombs: State Violence in South America through Literature and Cinema
Instructor: Minchillo
In the 1960s and 1970s, South America experienced a new cycle of state violence perpetrated by military dictatorships. The authoritarian regimes installed in Brazil (1964-85), Uruguay (1973-85), Chile (1973-90) and Argentina (1976-83) caused deep ruptures in collective and individual lives and still resonate in the South American political, social and cultural landscapes. After the democratic systems were reestablished in the region, new facts about the abuse of power by the militaries were disclosed, and a heated debate took place in the public sphere about how to deal with the past. Feature films, documentaries, and fiction and non-fiction literature played an essential role in that debate by providing different strategies of healing scars, honoring victims and survivors, and preserving the memory of both the terror and the grassroots resistance. The experiences and memories of the so-called "dirty war" in Argentina, Brazil, Chile, and Uruguay generated not only several fictional renderings of state terrorism during the "years of lead," but also a whole series of testimonios by those directly affected by it, such as the daughters, sons and spouses of desaparecidos who were assassinated by the machinery of state repression.

This class focuses on the legacies of dictatorships in South America and the politics and aesthetics of representation of state violence and political resistance. Students will be introduced to central concepts of memory and trauma studies and will conduct comparative literary and cinematic analyses of works by Latin American writers and film directors.

Cross-Listed as: COLT 52.05
Distributive: Dist: LIT; WCult: NW

LACS 47 - Twentieth-Century Latin America
This course seeks to address major issues in twentieth-century Latin America through the history of three or four countries. Topics discussed will include development, imperialism, nationalism, revolution, state formation and violence. Open to all classes.

Cross-Listed as: HIST 083
Distributive: Dist: SOC; WCult: NW

LACS 48 - Mexican Muralism
Instructor: Coffey
This survey course introduces students to Mexican muralism. Students will learn about the fresco technique and how to visually analyze a mural. We will consider the following themes: cultural nationalism; art and class politics; the legacy of muralism in the US; the ethics of aesthetic indigenism; and the gender politics of public art. Student projects will concentrate of Jose Clemente Orozco’s mural at Dartmouth College.

Cross-Listed as: ARTH 63.01
Distributive: ART

LACS 50.07 - Latin America's Search for Democracy and Development
Instructor: DeShazo
This course examines the political, economic, and social development of the five countries of the Andean region of South America (Venezuela, Colombia, Ecuador, Peru, Bolivia). It contrasts the current governance and economic policy approaches taken by the five countries as a means of
analysing variables linked to the consolidation of democracy and sustained economics development.

Cross-Listed as: GOVT 40.14
Distributive: Dist:INT; WCult:NW

LACS 50.08 - Commodities, Globalization, and Development in Latin America
Instructor: DeShazo
The course traces the economics history of Latin America since 1870 by highlighting the different stages in macro-policy (export-led growth, import substitution industrialization, current models juxtaposed) and by focusing on the role of commodities in the national and regional developmental process. Specific commodities to be studied include silver, guano, nitrates, coffee, sugar, cereals, beef, henequen, rubber, cocaine, and oil. Topics will be covered more or less chronologically, with the last classes analyzing current developments. Particular attention will be paid to the larger economies of the region (Mexico, Brazil, Argentina, Colombia, Peru, Chile, Venezuela) and the development strategies they pursued. The course will take on the issues of why Latin America has failed to reach levels of development achieved by industrialized countries in Europe and Asia and what can be done to achieve sustained development.

Cross-Listed as: GOVT 40.15
Distributive: Dist:INT; WCult:NW

LACS 50.09 - Revolution, Reform and Reaction: The Cold War in Latin America
Instructor: DeShazo
This course examines and analyzes the key variables that determined the course of Latin America's political, economic, and social evolution during the period of the Cold War (1946-1990). It focuses on the relationship of Latin America to the global Cold War, the manifestation of U.S. and Soviet foreign policy in the region, and the responses of key actors in Latin America to the geo-strategic, ideological and political rivalry between the two superpowers.

Cross-Listed as: GOVT 20.05
Distributive: Dist:INT; WCult:NW

LACS 50.11 - Latin America and the U.S.: The Dynamics of Foreign Policy
Instructor: DeShazo
This course examines how different forms of collective identity—including class, race, ethnicity, indigeneity and gender—have shaped Latin American and Latino politics in the 20th and 21st centuries. We will focus on a range of cases in Latin America and the U.S. to address the following questions: In what ways does the state create and sustain certain categories of identity as the basis for political inclusion and exclusion? What explains changes in the political salience of certain categories of collective identity? Why do some identities become politically salient and others do not? How have forms of political representation changed over the past century? How does state policy affect the ability of groups to mobilize and press for demands? How do organized groups affect state policy? What are the possibilities and limitations of identity-based mobilization?

Cross-Listed as: GOVT 84.35
Distributive: Dist:INT; WCult:W

LACS 50.13 - The History of Capitalism in Latin America
Instructor: Voekel
This course will ask what five centuries of Latin American history can tell us about the origins and consequences of global capitalism. We will listen to capitalism’s champions and critics, including state actors, the Church, non-governmental organizations, and organized social movements, and ask how the interplay between them has influenced economies, politics, and culture. Capitalist development and transformation involved elaborate cultural campaigns to win hearts, minds, and bodies to the project, and we will focus on how and why, for example, at its most extreme some people equated capitalism with sin while others found spiritual succor within its logics.

Cross-Listed as: HIST 080
Distributive: Dist:SOC

LACS 50.17 - Land, Belonging, and Social Change in Latin America
Instructor: Cuellar
This course examines the entanglements of society and nature in Latin America with respect to political economic processes that affect land use, its management, and its productive capacities in our present age of environmental degradation and heightened social conflict. Debates around multispecies thinking, the nature/culture divide, and environmental affect figure prominently in the interlinked and interdisciplinary discussions dealing with the curating, imagining, and use of environment in the hemispheric Americas. By thinking through the environment, we approach a different way of examining the history of Latin America, interrogating how we imagine Latin American nature as both object and site of our collective environmental imaginations. Topics include the politics of sustainability, green capitalism, indigenous land struggles, contemporary theories of nature, ecotourism, and select case studies at the intersection of ecology, conservation, and security.

Distributive: WCult:NW
LACS 50.18 - Sounding Out Power and Dissent

How does authority reach the ear? What are the sonic features of speaking truth to power? Who shapes the ways we hear, and where might we learn to listen differently? This course sounds out displays of authority as well as how we can act against such structures by turning to representations of the auditory in both literature and cinema. As we consider questions of sound and its reproduction, we will work across geographical contexts to determine which concerns resonate widely and what role acoustics, or the specific properties of a space, might play. Readings will come from writers such as Valeria Luiselli, María Sonia Cristoff, Franz Kafka, Frantz Fanon, and Severo Sarduy, while films will range from Fitzcarraldo to Sorry to Bother You.

Cross-Listed as: COLT 40.08 FILM 47.31
Distributive: Dist:INT

LACS 51 - Politics in Latin America

Instructor: Carey

This course is an introduction to the political development and the current context of politics in Latin America. It combines material on historical and theoretical topics with material on the current politics of specific countries. The central theme of the course is to evaluate the development of political institutions in Latin America and the challenges currently confronting democracy in the region. We examine the conditions under which Latin American republics gained independence in the 19th Century, and their trajectories of political and economic development. We then consider a range of political challenges confronting Latin American countries, including corruption and criminal violence, human rights abuses past and present, and revolutionary and populist challenges to state authority.

Cross-Listed as: GOVT 49.01
Distributive: Dist:INT or SOC; WCult:NW

LACS 52 - Sex and the State in Latin America

Instructor: Baldez

This course examines women’s movements in Latin America. Women in Latin America are perhaps the most highly mobilized population in the world. Throughout the region women have organized around myriad issues, including the right to vote, human rights, poverty, legal rights, anticommunism, the workplace, race, ethnicity and war. Women’s efforts to challenge fiercely repressive regimes, deeply entrenched norms of machismo and extreme poverty defy conventional stereotypes about women and provide us with inspiring examples of how to sustain hope during difficult times. The seminar will introduce students to recent scholarship on women’s movements in Latin America in the 20th century and seek to understand the emergence, evolution and outcomes of women’s movements in particular countries and cross-nationally.

Cross-Listed as: GOVT 49.04 WGSS 31.01
Distributive: Dist:SO; WCult:NW

LACS 53 - Protests and Parties in Latin America

Instructor: Baldez

For many people, Che Guevara remains the key symbol of protest in Latin America. His passionate belief in social justice, his refusal to compromise and the extraordinary personal sacrifices he made on behalf of the poor all contribute to his enduring legacy. While this legacy continues to inspire people to engage in protest and revolutionary movements, it does little to help us understand the conditions under which organized movements will succeed in their goals-or even form in the first place. Under what conditions do people organize on behalf of their collective interests? We compare revolutionary movements, social movements, political parties and other forms of political action in various countries throughout the region.

Cross-Listed as: GOVT 49.05
Distributive: Dist:INT or SOC; WCult:NW

LACS 54 - Nationalism and Revolution in the Caribbean

Instructor: Chocotte

The islands of the Caribbean have served as the site for two of the most significant revolutionary upheavals of the modern era-the Haitian Revolution and the Cuban Revolution and have produced anti-colonial luminaries such as José Marti, Frantz Fanon, Marcus Garvey, and Claudia Jones. This course will explore the origin, trajectory, and outcome of nationalist struggles in the Caribbean from the eighteenth-century to the present through primary and secondary materials, memoirs, fiction, and film.

Distributive: Dist:INT or SOC; WCult:NW

LACS 58 - Slavery and Emancipation in Latin America and the Caribbean

For over 300 years, Africans were transported to Latin America and the Caribbean to work as enslaved laborers. This course will examine the history of African slavery in the region from the beginning of the Atlantic slave trade to the abolition of slavery in Brazil in 1888. For each class session, students will review primary source documents such as autobiographies, slave codes, plantation journals, visual images, and anti-slavery tracts as well as historical scholarship.

Cross-Listed as: AAAS 60, HIST 92.03
Distributive: Dist:INT or SOC; WCult:NW

LACS 59 - Caribbean History 1898 to the present

This course surveys the major issues that have shaped Caribbean society from the late 19th-century to the present, including: imperialism, urbanization, migration and globalization, struggles for national independence, the transition from plantation to tourism-based economies, and the global spread of Caribbean popular culture. Our readings and discussions will focus on the historical trajectories of Cuba, Haiti, Jamaica, Puerto Rico, Trinidad, and the Dominican Republic using historical scholarship, music, literature, film, and personal narratives.

Cross-Listed as: AAAS 83.04

LACS 76 - Culture and Identity in Modern Mexico

Instructor: Voekel

From the Porfiriato and the Revolution to the present, a survey of Mexican society and politics, with emphasis on the connections between economic developments, social justice, and political organization. Topics include fin de siècle modernization and the agrarian problem; causes and consequences of the Revolution of 1910; the making of the modern Mexican State; relations with the United States; industrialism and land reform; urbanization and migration; ethnicity, culture, and nationalism; neoliberalism and social inequality; the problems of political reform; and the zapatista rebellion in Chiapas. Open to all classes.

Cross-Listed as: HIST 087

Distributive: Dist:SOC; WCult:CI

LACS 78 - Twentieth Century Art from Latin America

Instructor: Coffey

This course surveys art produced by Latin Americans during the 20th century through case studies of the major figures and movements in the cosmopolitan centers of Argentina, Brazil, Chile, Colombia, Cuba, Ecuador, Mexico, Peru, Puerto Rico, Uruguay, and the U. S. We treat Latin America as a geopolitical construct rather than an essential unity, and examine how national identity, racial formation, class difference, gender inequality, political struggle, and state violence have been addressed by artists from the region and in diaspora.

Cross-Listed as: ARTH 40.03

Distributive: Dist:ART; WCult:CI

LACS 80.02 - Identity and Power in the Americas

Instructor: Baldez

This course examines how different forms of collective identity—including class, race, ethnicity, indigeneity and gender—have shaped Latin American and Latino politics in the 20th and 21st centuries. We will focus on a range of cases in Latin America and the U.S. to address the following questions: In what ways does the state create and sustain certain categories of identity as the basis for political inclusion and exclusion? What explains changes in the political salience of certain categories of collective identity? Why do some identities become politically salient and others do not? How have forms of political representation changed over the past century? How does state policy affect the ability of groups to mobilize and press for demands? How do organized groups affect state policy? What are the possibilities and limitations of identity-based mobilization?

Cross-Listed as: GOVT 84.38; AAAS 90.01

Distributive: Dist:INT; WCult:W

LACS 80.60 - Ethnic Los Angeles

This course will focus on the history, culture and literature of Los Angeles, California, the second largest city in the United States. We will briefly examine its founding in the eighteenth century as a Northwest outpost of the Spanish empire in the Americas, and its origins and evolution as a Mexican pueblo and U.S. city in the nineteenth century. The majority of our attention will be on the historical and contemporary struggles of people of color in metro-Los Angeles throughout the twentieth and into the twenty-first centuries.

Cross-Listed as: HIST 96.04

Distributive: Dist:SOC; WCult:CI

LACS 83.50 - Trading Places: How Chile Passed Argentina on the Road to Development

Instructor: DeShazo

This course will investigate and analyze the factors that led to and inhibited development in Chile and Argentina. It will trace key economic, political and social variables in both countries from the export-led growth period of the Second Industrial Revolution to the present time in an effort to draw conclusions regarding why, when, and how Chile was able to advance at a faster pace than Argentina.

In doing so, the course will draw on tools of economic, political and historical analysis, seeking to compare the two case studies in a multi-disciplinary framework. The course will be a seminar in order to stimulate student discussion.

Cross-Listed as: GOVT 84.38

Distributive: Dist:INT or SOC; WCult:NW

LACS 89 - Independent Study

Instructor: See chair
Students wishing to pursue intensive supervised study in some aspect of Latin American and Caribbean Studies should consult the appropriate member of the LACS faculty to design and carry out an independent study project. Students are required to submit a short description proposal to the program office in the term prior to doing the independent study. This course fulfills the "culminating experience" requirement for all majors who do not complete the Honors Program. Prerequisite: permission of the instructor.

LACS 98 - Honors Thesis I
Instructor: Chair
Guidance in the selection of a topic and in research and writing will be provided by the student's thesis adviser. Only students accepted into the Honors Program may take this sequence.

Students are awarded one course credit for successful completion of this course at the end of the third term of study. Students subsequently register for LACS-099 and continue with their coursework into a third term. Students do not register for a third term. A final grade will replace the “ON” for both LACS-099 and this course upon completion of this course at the end of the third term of coursework.

LACS 99 - Honors Thesis II
Instructor: Chair
Guidance in the selection of a topic and in research and writing will be provided by the student's thesis adviser. Only students accepted into the Honors Program may take this sequence.

Students are awarded one course credit for successful completion of this course. Students who have registered for LACS-098 register for this course and continue with their coursework into a third term. Students do not register for a third term. A final grade will replace the “ON” for both LACS-098 and this course upon completion of this course at the end of the third term of coursework.

LATS - Latino Studies Courses
To view Latino Studies requirements, click here (p. 476).

LATS 3 - Introduction to Latino Studies
Instructor: DiBlasi, M. Garcia
This course provides students with a critical overview of some of the most central themes and issues that have shaped the experiences of Latina/o populations in the U.S. The main areas of inquiry that this course will address include: the history of ethnic communities, the formation of transnational communities and identities; the politics of language and bilingualism; race, class, and ethnicity; gender and sexuality; political and social movements; geographic space and localities; and media and popular culture. In order to foster an interdisciplinary and hemispheric approach to Latina/o Studies, course materials will draw from the social sciences and the humanities, as well as from U.S. and Latin American scholarship and cultural traditions. This course will serve as a general introduction to the more focused areas of study developed in intermediate and upper level LATS.

Distributive: Dist:SOC; WCult:CI

LATS 5 - Complexities of Latino Identity
Instructor: DiBlasi
The Latino population currently consists of approximately 40 million people in the United States; by the year 2050, the Census estimates that the Latino population will makeup at least 25 percent of the total U.S. population. This diverse group traces its origins to a variety of countries. Their experiences and identities in the United States are quite varied. This introductory course examines the experiences of reception, settlement, and transnational lives of various Latino groups - Chicanos, Puerto Ricans, Cubans, Dominicans, Central and South Americans - in the United States. By using interdisciplinary research, this course explores issues of race, class, gender, migration, and representation of group politics.

Cross-Listed as: SOCY 44
Distributive: Dist:SOC; WCult:W

LATS 7 - First Year Seminar in Latino Studies
Consult Special Listings

LATS 8 - Food History
Instructor: M. Garcia
We will look at issues of food production and consumption, and how our relationship to food contributes to the political and social structures that we live with. Our approach will be historical and pay special attention to the ways in which our production and consumption of food has been shaped by the movement of people over the last century. The readings explore how food creates ways for people to form bonds of belonging while also creating bonds of control and regimes of inequality.

Cross-Listed as: HIST 08.06
Distributive: Dist:SOC; WCult:W

LATS 20 - Latina/o Social Movements
Instructor: M. Garcia
People of Latin American descent (aka “Latina/os,” or the gender neutral, more inclusive “Latinx”) have been at the forefront of a variety of social movements over the last century. In some cases, they have insinuated themselves into existing movements, while in others, they have built movements that uniquely speak to their concerns as
soldiers and anti-war activists, undocumented residents, racial minorities, farm workers and/or perceived impediments to economic progress. Always, they have asserted their rights to protest. Frequently, they have taken these actions regardless of their citizenship status. This class charts the growth of these movements and anticipates the future of social protest and Latinx politics in the United States.

Cross-Listed as: HIST 31.01
Distributive: Dist:SOC; WCult:W

LATS 25 - Race and Gender in American Film
Instructor: D. Garcia
This course is an introduction to the history of race and gender in American film. These fundamental social constructs in American life have been central to the development of American film narrative from the beginnings of cinema at the turn of the twentieth century. In turn, American films have profoundly shaped the ways that we think about race and gender and racialized and gendered beings. We will analyze the shifting and situational meanings of race and gender throughout the twentieth century, and in particular, how they have been influenced by the forces of history, including wars, economic depressions, and social movements. While we will focus our attention on Hollywood cinema of the “golden age”, the period from the 1920s-1960, we will also spend significant time considering American independent cinema and the post-classical period of filmmaking from the 1960s to the present. In our consideration of race and racialized peoples, we will include African Americans, Native Americans, Asian Americans and Latinos. Our discussions of gender will be expansive to include not just women and femininity, but men and masculinity as well.

Cross-Listed as: AAAS 32.01 FILM 47.24
Distributive: Dist:ART; WCult:W

LATS 35 - Topics Course in Latino Studies
LATS 37 - Migrant Lives and Labor in the Upper Valley: Latinx Studies for Community Engagement
Instructor: Reyes; Moody
This course introduces students to the cultural, social, and political issues surrounding migrant dairy farm labor through a combination of in-class readings and films, as well as a community engagement component at local dairy farms in the Upper Valley. The course readings include social science scholarship and literature, film, and cultural studies readings, through which we will explore a range of issues affecting local, national, and transnational agricultural and dairy farm workers. On a regular basis during the term, Dartmouth students will visit local dairy farms to engage in collaborative projects with the Spanish-speaking migrant farm workers who live and work on these area farms, some of whom have been residents in the region for many years. We consider how historical and contemporary causes and contexts of migration, settlement patterns, labor market experiences, demographic profiles, identity formations, forms of political participation, structural incorporation, and cultural expressions affect this population of immigrants.

Cross-Listed as: GEOG 28 and SOCY 48
Distributive: Dist:SOC; W Cult:CI

LATS 40 - Immigration, Race and Ethnicity
Instructor: Wright
This course examines 20th century immigration to the United States and pays special attention to issues of race and ethnicity. The course begins with a brief history of US immigration and then thematically covers specific topics such as economic impacts and costs, social mobility, citizenship, transnationalism, assimilation, and religious issues and their relationship to the immigrant experience. We feature nativist reactions to immigration and highlight differences within and between Latino, Asian, and European groups throughout the course.

Cross-Listed as: GEOG 28 and SOCY 48
Distributive: Dist:SOC; WCult:CI

LATS 41 - Representations of/from Latinos in the Media and the Arts
Instructor: Moody
What role do the media and the arts play in the formation of ethnic, racial and cultural identities for Latinos/as? How do Latinos respond to these representations of themselves through various electronic media and the arts? This class investigates how race, ethnicity, gender, and "otherness" are represented in various media and art forms, including cinema, radio broadcasting, performance art, mural art, graphic novels, and the Internet. We will trace the history of Latinos in various media and artistic movements, as well as hold online discussions and video conferences with students and professionals working in these areas. Students will explore the politics and dynamics of representation by producing their own creative and critical work and presenting it to the Dartmouth community through their final projects.

Distributive: ART

LATS 44 - Crossing Over: Latino Roots and Transitions
Instructor: DiBlasi; Gomez
This course focuses on the histories and experiences of Latinx transnational migrants—from Mexico, Central America, Puerto Rico, the Dominican Republic, and Cuba—living in the United States. You will study the historical, political, and economic processes that have led
to these migrations, as well as the varying ways in which race/ethnicity, class, gender/sexuality, and citizenship affect Latinx migrant lived experience. Given our focus on “crossing,” readings will foreground subjects that capture this theme, from the literal movement of people, to the constant back and forth that shapes Latinx lives, to the adjustments Latinx people make given their language, their proximity to other immigrants and communities of color, and their varying acceptance within the United States.

Cross-Listed as: ANTH 12.19 SOCY 043
Distributive: Dist:SOC; WCult:CI

LATS 45 - Comparative Perspectives on the US-Mexican Borderlands
Instructor: J. Cortez; TBD
This course examines the US-Mexican borderlands from an interdisciplinary perspective. Through exposure to a range of methods and subjects, we will better understand the region’s history, politics, and culture. We will employ this interdisciplinary approach in order to analyze the formation, merging, and contestation of gendered, racialized, and national identities and how they intersect with issues of mobility and belonging, law and order, the local and the global.
Distributive: Dist:SOC; WCult:CI

LATS 51 - Beyond Sex, Drugs, and Rock ‘n Roll: Radical Latinxs in the 60’s
Instructor: Spitta
The 1960s and 70s were a time of tremendous political and creative turmoil in the US in general and for Latinos in particular. Joining in the Civil Rights Movement and the anti-Vietnam mobilization, Latinos also fought for their rights founding important political organizations such as the Raza Unida Party; MeCHA, the United Farm Workers, the Brown Berets, the Nuyorican Young Lords Party, among many others. Beyond traditional stereotypes of the 60s as the period of drugs, sex and rock ‘n roll, protesters and political activists were inordinately adept at creating and mobilizing artistic symbols, music, and literature to promote their agenda. We will study the creation of Aztlán as an imaginary Chicano homeland in the Southwest; works of individual Latino artists and writers; important journals (Con Safos, Chismearte, Arte del Varrio); organizations such as the Royal Chicano Air Force, Asco, Galería de la Raza, the Teatro Campesino, the Nuyorican Poets’ Café; national monuments such as Chicano Park; and exhibitions such as Chicano Art: Resistance and Affirmation (CARA; held at UCLA). This course will be taught entirely in English.
Cross-Listed as: COLT 52.07 SPAN 63.09
Distributive: Dist:ART; WCult:CI

LATS 89 - Independent Study
Instructor: See chair
Students wishing to pursue intensive supervised study in some aspect of Latino Studies should consult the appropriate member of the LALACS faculty to design and carry out an independent study project. Students are required to submit a short description proposal to the program office in the term prior to doing the independent study. This course fulfills the ‘culminating experience’ requirement for all majors who do not complete the Honors Program. Prerequisite: permission of the instructor.

LATS 98 - Honors Thesis I
Instructor: See chair
Guidance in the selection of a topic and in research and writing will be provided by the student's thesis adviser. Only students accepted into the Honors Program may take this sequence (LATS 98-LATS 99).

Students are awarded one course credit for successful completion of this course at the end of the third term of study. Students subsequently register for LATS-099 and continue with their coursework into a third term. Students do not register for a third term. A final grade will replace the “ON” for both LATS-098 and this course upon completion of this course at the end of the third term of coursework.

LATS 99 - Honors Thesis II
Instructor: See chair
Guidance in the selection of a topic and in research and writing will be provided by the student's thesis adviser. Only students accepted into the Honors Program may take this sequence (LATS 98-LATS 99).

Students are awarded one course credit for successful completion of this course. Students who have registered for LATS-098 register for this course and continue with their coursework into a third term. Students do not register for a third term. A final grade will replace the “ON” for both LATS-099 and this course upon completion of this course at the end of the third term of coursework.

Lesbian, Gay, Bisexual, and Transgender Studies
Associated faculty: S. Ackerman (Religion, Women’s, Gender, and Sexuality Studies), C. G. Bogs (English, Women’s, Gender, and Sexuality Studies), S. J. Brison (Philosophy), A. A. Coly (African and African American Studies, Comparative Literature), M De Berry (Women's, Gender, and Sexuality Studies), M. Desjardins (Film Studies), G. Dietze (Women's, Gender, and Sexuality Studies), V. Fuechtner (German), M. R. Graver (Classics), M. Huang (Women's, Gender, and Sexuality Studies), E. B. Lim (Women's, Gender, and Sexuality Studies), C. H.
Lesbian, Gay, Bisexual, and Transgender Studies examines the lives, experiences, and representations of lesbian, gay, bisexual, and transgender persons, studying in historical, contemporary, and theoretical contexts LGBT communities, institutions, politics, languages, art, literature, and relationships to heterosexual norms. Drawing upon interdisciplinary and multicultural resources, LGBT Studies analyzes sexuality and sexual identity as complex social and historical phenomena. Up-to-date listings for LGBT courses can be found under Women’s, Gender, and Sexuality Studies.

Linguistics

Chair: J. N. Stanford

Professors: C. K. Donahue (Linguistics), L. H. Glinert (AMELL), J. N. Stanford (Linguistics), L. J. Whaley (Linguistics and Classics); Associate Professors: L. E. McPherson (Linguistics), D. A. Peterson (Linguistics); Assistant Professor: R. Coto-Solano (Linguistics); Senior Lecturer: T. J. Pulju (Linguistics); Research Assistant Professor: S. Wray (Linguistics); Visiting Professor: T. Ernst (Linguistics)

To view Linguistics courses, click here (p. 491).

The Linguistics Department offers two different majors and one minor: the Linguistics Major, the Linguistics Minor, and the Computational Linguistics Major. The Linguistics Major may be modified with another program of study, but the Computational Linguistics Major may not. Because the Computational Linguistics Major is a combination of linguistics and computational coursework, students may not major in both Linguistics and Computational Linguistics, nor is there a minor in Computational Linguistics.

The Major in Linguistics

Students who pursue a major in linguistics should take ten courses beyond LING 1. Linguistics majors should also take two foreign language courses in addition to the College’s foreign language requirement. They may fulfill this requirement by taking two courses in a single language beyond the first-year level in the same language as used to fulfill the College requirement. Alternatively, one or both of these additional language courses may be in a different language not closely related to the first. Linguistics 8 and Linguistics 35 may be used to fulfill one or both of these additional language courses; if used in this way, however, Linguistics 8 and Linguistics 35 may not also be counted towards the major.

The ten courses for the major should be constituted as follows:

1. LING 22
2. LING 20 or LING 21
3. One course in the 30s (LING 33 or LING 35)
4. At least three additional courses in the 20s or 30s (LING 20, 21, 23, 24, 26, 27, 28, 33, 35)
5. Four more courses in Linguistics, including one that satisfies the requirement for a culminating activity, which may be met in one of three ways:
   a. Completing a senior Honors Thesis (LING 86 - LING 87)
   b. Taking an advanced seminar in linguistics (LING 80)
   c. Carrying out a one or two term Independent Study project (LING 85)
6. Of the courses not used to satisfy the culminating activity requirement under 5, students may substitute up to two courses from the following, in consultation with an advisor: Anthropology 9, French 35, Philosophy 6, Philosophy 34, and/or Russian 48. Certain courses not listed here, such as advanced seminars in various departments, may also be counted towards the major with permission of the Chair.
7. Majors may not include more than two courses designated as LING 11.

The Minor in Linguistics

The minor in Linguistics has a prerequisite of LING 1 and then five additional courses. Three or more of the five additional courses must be courses taught in the Linguistics Department, and at least two of these should be numbered in the 20s. The remaining courses are to be selected in conjunction with the student’s adviser.

The Modified Linguistics Major
Students may modify Linguistics with another course of study to create a Linguistics Modified Major. Students who wish to pursue a Modified Linguistics Major should speak with the Chair of Linguistics first. In order to pursue a Modified Linguistics Major, students must take six courses for the Linguistics portion.

1. At least three linguistics courses in the 20s, 30s, 40s, or 50s.
2. At least two other courses, chosen from the offerings in linguistics and/or the related courses approved for the regular major in linguistics.
3. A course which satisfies the requirement for a culminating activity, which may be met as for the regular major in linguistics.

The Computational Linguistics Major

Students who wish to pursue a Computational Linguistics major should take ten courses beyond the prerequisites LING 1 and COSC 1.

The ten courses for the Computational Linguistics major should include the following:

1. Three Linguistics courses chosen form the following list:
   a. LING 10, 17, 20, 22, 23, 24, 26, or other LING course in consultation with the major advisor
2. Two Computational Linguistics courses:
   a. LING 50
   b. LING 28 or LING 48
3. Three Computer Science/Math courses:
   a. COSC 10
   b. COSC 50
   c. MATH 22 or COSC 70
4. One Elective Course: One elective course can be drawn from Linguistics, Computer Science, Quantitative Social Science, or a related field. This course is selected in consultation with the major adviser. Relevant Computer Science courses include COSC 76 and COSC 78
5. Culminating Experience LING 85 or LING 86-87. Students may either take a one-term Independent Study (LING 85) or a two-term senior honors thesis (LING 86-87). These courses provide hands-on experience and personal mentoring in a computational project. The honors thesis provides two course credits (LING 86-87), so students who choose this option may reduce one course from among the other required categories in the major, with the approval of the major adviser.

Honors Program

The Honors Program in Linguistics offers qualified students the opportunity to undertake independent research under the direction of a faculty member. Students who plan to undertake such a project should have a 3.0 grade average in all courses taken at the College and an average of 3.3 for courses within the major. It is important to consult with a prospective adviser as early as possible, preferably during the junior year; applications to the Honors Program may be submitted to the Chair either during the spring of the junior year or the fall of the senior year. The project itself normally lasts two terms. The completed thesis is to be submitted during the spring term, and then an oral presentation is given at a special seminar of students and faculty.

See Linguistics (p. 491) courses

LING - Linguistics Courses

To view Linguistics requirements, click here (p. 490).

LING 1 - Introductory Linguistics

Instructor: McPherson (21X), Peterson (21F), Whaley (22W), Pulju (22S)

An introduction to the scientific description of human language. The course teaches methods of analyzing languages' sound systems (phonology), word structure (morphology), sentence patterns (syntax), and systems of meaning (semantics and pragmatics). Some important implications of linguistics for the study of human cognition and cultural behavior will be discussed. This course is a prerequisite for all majors in linguistics. Open to all classes.

Distributive: QDS

LING 5 - Topics in the Study of Language

Courses designated as Linguistics 5 are specifically designed for non-majors to provide them with a deeper awareness of the complexity of human language, linguistic geography or the intersection of language and human society.

LING 5.01 - Words

In this course we will explore all aspects of this most familiar unit of language. Among the questions we will address are: How exactly can we – or dictionary-makers – describe the precise meaning of a word? Is this even possible? How can two politicians honestly differ about the meaning of the word “lie”? How can a word’s meaning change over time? How and why are words borrowed from one language into another? How do our brains think of the words we want so fast? Why do we sometimes mishear song lyrics? What kinds of building blocks make up a
word, and what ways are there of inventing new words? What makes a word part of slang or a specialized vocabulary? How do children learn their first words – and how do they learn tens of new words a day at their peak of vocabulary acquisition around age 2?

Distributive: Dist:SOC

**LING 7 - First-Year Seminar in Linguistics**
Instructor: Donahue

**LING 8 - The Structure of Maori**
Instructor: McPherson

This course is an introduction to the structure of the Maori language. Emphasis is given to the morphology and syntax of basic Maori clause structure. This course is taught by a member of the Department of Maori Studies at the University of Auckland.

Prerequisite: LING 1 and one other Linguistics course in the 20s.

**LING 10 - Statistics for Linguistics**
Instructor: Coto-Solano

This course is designed to introduce you to the exploration of linguistic data using quantitative methods. It will enable you to apply statistical methods to explore linguistic patterns in your data, formulate hypotheses about linguistic research, and present your findings in linguistic fora. We will study descriptive statistics (e.g. mean, media, mode, variance, standard deviation), inferential statistics (e.g. t-student, ANOVA, chi-square, linear regression) and the basics of Bayesian statistics (e.g. probability distributions, population comparisons). Because of the large overlap in material covered, no student may receive credit for more than one of the courses ECON 10, ENVS 10, GOVT 10, LING 10, MATH 10, PSYC 10, QSS 15, or SOCY 10.

Distributive: Dist:QDS

**LING 10.02 - Languages of China**
Instructor: Pulju

In this course, we will survey both the history of language in China, and the current linguistic situation. Topics will include: geographical and genealogical classification of languages in China; the phonological and grammatical systems of representative languages; the reconstruction of Middle and Old Chinese; ways of writing both Sinitic and non-Sinitic languages; language as a marker of ethnic identity; and past and present language policies, both governmental and non-governmental.

Cross-Listed as: ASCL 60.19

Distributive: Dist:SOC; WCult:CI

**LING 11.03 - Language Behavior and Verbal Cultures in the Middle East**
Instructor: Gilnert

This course in anthropology and ethnography of language illustrates how Middle Eastern cultures employ language to construct and reflect values, identities and institutions, to create relationships and project personal status, and to perform actions (such as ending a phone call, apologizing, paying compliments and negotiating business deals). Particular attention will be paid to the language of health and healing. No prior knowledge of a particular language or culture is assumed. Open to all classes.

Cross-Listed as: MES 16.03

Distributive: Dist:INT or SOC; WCult:CI

**LING 11.06 - Language Revitalization**
Instructor: Whaley

There is currently a measurable reduction in the amount of linguistic diversity around the world as many languages become moribund or cease to be spoken. With greater awareness of language endangerment and attrition, there have been counteracting efforts to maintain and revive the use of many of these languages. In this course we examine the phenomena of language endangerment and language revitalization. We will evaluate the socio-historical reasons for language shift, the rationale for language revitalization and the relative degrees of success in different revitalization programs. There will be a focus on the languages of North America.

Cross-Listed as: NAS 40

Distributive: Dist:SOC

**LING 11.09 - The World's Englishes**
Instructor: McPherson

Billions of people can speak and write some form of English. The course explores diverse Englishes around the world, taking up both linguistic and philosophical questions such as: Why is English so widespread? What are the structural differences among different Englishes? Why are some forms of English considered prestigious while others are viewed negatively? How are personal, ethnic, and national identities constructed through language practices? How are international power relations perpetuated and contested through language?

Distributive: Dist:INT or TMV; WCult:CI

**LING 11.10 - Language in Africa**
Instructor: McPherson

Africa: home to around 2000 of the world’s 7000 languages, yet ask an average person on the street to name five African languages and they may be hard-pressed to do so. This course explores the languages of Africa from a historical, linguistic, and cultural standpoint, including the
migration and diffusion of different language groups across the continent, similarities and differences in linguistic structure between African languages, the amazing complexity of the Khoisan languages (best known for their use of clicks), the effects of colonialism on language, writing systems, and many other topics.

Cross-Listed as: AAAS 87.11
Distributive: Dist:SOC; WCult:NW

**LING 11.11 - Languages of the World**
Instructor: Ernst

This course examines cross-cultural differences as manifested in languages of the world and the way these languages are used by their speakers. We will take an in-depth look at five languages – Japanese, Swahili, Jacaltec, Mohawk, and Cape York Creole. In each unit we will start with a brief examination of the structure of that language, and then branch out to a broader discussion of one or more larger, cross-linguistic phenomena and how they are manifested in that language. These include: politeness and social solidarity; universal patterns of word order and word-formation; multilingualism and language choice; language and ethnic identity; case and agreement systems; endangered languages and language revitalization; and pidgins and creoles.

Distributive: Dist:INT or SOC

**LING 11.12 - Language and Cognition**
Instructor: Whaley

This course examines some of the interrelationships between language and thought. Do people who speak different languages think differently? What does language tell us about the ways in which people conceptualize objects and abstract concepts such as time? How does language relate to other cognitive processes? Is language a uniquely human ability? Topics include linguistic relativism, folk taxonomies, metaphor, categorization, causation, space, time and gender. No prior courses in linguistics or cognitive science are required.

Distributive: Dist:SOC

**LING 11.13 - The Language-Music Connection**
Instructor: McPherson and Levin

Language and music are universal components of human experience, so integral that they are often considered part of what defines us as humans. While we treat them as distinct phenomena, the overlap between the two is immense, structurally, neurologically, and culturally. Such connections have long been recognized, but recent research from diverse fields like linguistics, (ethno)musicology, cognitive psychology, anthropology, and neuroscience continues to reveal just how intertwined the two faculties are. Drawing on this body of research and our respective specialties, we explore the language-music connection from the basic ingredients (pitch, timbre, rhythm, syntax), to cultural expression, to evolution and origins. Running through the course is a hands-on case study of a West African xylophone tradition where language and music are so intimately related that they cannot be separated. Students will be taught by a master of the tradition, Mamadou Diabaté, to feel for themselves what it means to speak through an instrument.

Cross-Listed as: COCO 023 MUS 17.06
Distributive: Dist:INT or ART; WCult:NW

**LING 11.14 - History and Structure of the Latin Language**
Instructor: Pulju

This course focuses on the grammar, pronunciation, and writing of Latin, starting from its origin in Proto-Indo-European (c. 4000 BC), proceeding through early Latin into the classical period (1st cent. BC to 1st cent. AD), and ending with the post-classical era. Through analysis of language data and reading of selected ancient texts, students will gain a greater mastery of synchronic language patterns, and also will understand the diachronic origins of those patterns.

Cross-Listed as: LAT 30.08
Distributive: Dist:QDS; WCult:W

**LING 11.15 - History and Structure of the Greek Language**
Instructor: Pulju

This course focuses on the grammar, pronunciation, and writing of ancient Greek, starting from its origin in Proto-Indo-European (c. 4000 BC), proceeding through Homer to classical Attic (1st millennium BC), and ending with the post-classical era. Through analysis of language data and reading of selected ancient texts, students will gain a greater mastery of synchronic language patterns, and also will understand the diachronic origins of those patterns.

Cross-Listed as: GRK 30.08
Distributive: Dist:QDS; WCult:W

**LING 11.17 - Language Acquisition**
Instructor: Wray

Language is a socially and cognitively complex activity, yet most healthy individuals acquire language in the first years of their life with no expended effort. This course provides an in-depth overview of typical language development from fetus to adult, as well as atypical development. The study of this topic within this course is informed by cognitive science, speech and hearing, psychology, philosophy, and neurology, and is ultimately couched in linguistic framework and terminology.
LING 11.18 - History of the Arabic Language
Instructor: Wray
In this course, we will survey the history of the Arabic language and the current linguistic situation across the Arabic speaking world. We will learn about the foundations of Arabic grammatical and philological tradition, and compare these with modern linguistic perspectives. We will also engage with the ideologies surrounding the multiple dialectal varieties, which serve as both liturgical and administrative languages, as well as languages of thought, conversation, and artistic expression.
Cross-Listed as: MES 15.12
Distributive: Dist:SOC

LING 17 - Sociolinguistics
Instructor: Stanford
The field of sociolinguistics deals with the ways in which language serves to define and maintain group identity and social relationships among speakers. In this course we will consider such topics as regional and social variation in language; the relationship of language and ethnicity, sex and gender; language and social context; pidgin and creole languages; language endangerment and the fate of minority languages in the US and other countries; language planning, multiculturalism and education. Open to all classes.
Distributive: Dist:QDS; WCult:W

LING 18 - History of the English Language
Instructor: Pulju
This course traces the development of English as a spoken and written language belonging to the Indo-European language family. We will work forward from Proto-Indo-European through Old English (Beowulf), Middle English (Chaucer), and Early Modern English (Shakespeare), up to contemporary American English. Our focus will be on the structural history of the language, especially changes in pronunciation and grammar, and the implications of those changes for English as spoken and written today. Open to all classes.
Cross-Listed as: ENGL 047
Distributive: Dist:QDS; WCult:W

LING 20 - Experimental Phonetics
Instructor: Stanford
This course is an introduction to speech physiology, articulation, and the acoustic analysis of speech. Students will acquire knowledge of the experimental and computational techniques that are relevant for investigating the production of speech. This includes equipment functioning, data collection and recording techniques, techniques for analyzing speech acoustics, and analysis of data from a variety of languages.
Prerequisite: LING 1
Distributive: TAS

LING 21 - Phonology
Instructor: McPherson
Phonology is the study of the system underlying selection and use of sounds in languages of the world. The course will introduce students to investigation of these topics from the perspective of recent theories of phonology. Readings, class discussions, and homework problems will provide a basis for understanding the origin, role, and uses of sound systems in spoken languages.
Prerequisite: LING 1.
Distributive: QDS

LING 22 - Syntax
Instructor: Ernst
An introduction to the formal analysis of grammatical structure. The course aims to familiarize the student with Principles and Parameters Theory (PPT), the theoretical framework which currently dominates the field of syntax in North America. The course also provides an introduction to using data to support one syntactic analysis over another, and an overview of some of the major syntactic phenomena in the world's languages.
Prerequisite: LING 1.
Distributive: QDS

LING 23 - Semantics and Pragmatics
Instructor: Pulju
An investigation of 'meaning' in language: word meaning, sentence meaning and its relation to syntactic structure, and the role of both linguistic and extra-linguistic context.
Prerequisite: LING 1.
Distributive: QDS

LING 24 - Discourse Analysis
Instructor: Peterson
Discourse analysis examines linguistic structure that exists beyond the sentence level. In this course we will consider the structures of naturally occurring spontaneous speech (such as conversations, interviews, oral narratives) and those in written text. Special attention is given to the global priorities of connected speech and writing, including mechanisms of coherence and cohesion. Other topics include narrative structures, new and old information,
topicalization, foregrounding and backgrounding, and the methods of conversational analysis and variation analysis.

Prerequisite: LING 1.
Distributive: SOC

LING 26 - Morphology
Instructor: McPherson

Morphology is the study of word structure and word-formation processes, and how these interact with phonology, syntax, and the lexicon. This course focuses on analyzing morphological phenomena in a wide range of typologically diverse languages. Topics to be addressed include the place of word formation in relation to phonological and syntactic phenomena, as well as the contribution of morphological analysis to our understanding of lexical processing. We will consider the history of morphological theory in generative grammar, with special attention to recent approaches, including Distributed Morphology.

Prerequisite: LING 1
Distributive: QDS

LING 27 - Historical Linguistics
Instructor: Pulju

This course focuses on the principles and methods of historical linguistics. Students will learn how languages change on all levels (phonetic, phonological, morphological, syntactic, semantic, and lexical), and will learn to apply the principles of language change to the reconstruction of vanished protolanguages and their associated cultures.

Prerequisite: LING 1 or LING 18.
Distributive: Dist:QDS

LING 28 - Computational Linguistics
Instructor: Coto-Solano

The study of human language from a computational perspective. This course will survey formal models for representing linguistic objects, and statistical approaches to learning from natural language data. We will pay attention to the use of computational techniques to understand the structure of language, as well as practical engineering applications like speech recognition and machine translation. Students will implement simple algorithms for several key tasks in language processing and learning.

Distributive: Dist:TAS

LING 33 - Typology
Instructor: Whaley

This course is an introduction to the field of language typology. We begin by exploring the core assumptions and methods of the discipline, and by reviewing typologies based on word order and morphology. Then, we examine a variety of grammatical categories and constructions including tense/aspect, case, relative, clauses, serial verbs, and switch-reference. Throughout the course we will also consider the sorts of explanations which have been put forth to account for typological patterns.

Distributive: SOC

LING 35 - Field Methods
Instructor: Stanford

This course provides an overview of issues that arise in collecting language data in the field. We will examine techniques used in the gathering and analysis of data and practical problems that confront the fieldworker.

Prerequisite: LING 21 and one other course in the 20s.
Distributive: QDS

LING 48 - Accelerated Computational Linguistics
Instructor: Coto-Solano

The study of human language from a computational perspective. This accelerated course has programming background equivalent to that provided by COSC 1 as a prerequisite. This course will survey formal models for representing linguistic objects, and statistical approaches to learning from natural language data. We will pay attention to the use of computational techniques to understand the structure of language, as well as practical engineering applications like speech recognition and machine translation. Students will implement simple algorithms for several key tasks in language processing and learning.

Prerequisite: COSC 01
Cross-Listed as: COSC 072
Distributive: Dist:TAS

LING 50.01 - Psycholinguistics
Instructor: Wray

The deceptively simple tasks of perceiving and producing language require the performance of complicated and often overlapping functions at high speeds. How can we study the representations and processes that make language possible as they interact in the black box that is the human mind? The goal of this course is to provide a broad understanding of research focusing on how the human mind structures, stores and accesses linguistic information.

Prerequisite: LING 1 or COGS 1 or with Instructor Permission.
Cross-Listed as: COGS 50.05, PSYC 51.13
Distributive: Dist:SOC
LING 50.04 - History of the Romance Languages
This course focuses on the internal history of three Romance languages—Italian, Spanish, and French—showing how they diverged from their common ancestor to become three separate languages today. Although we will pay some attention to social, cultural, political, and literary developments, the bulk of the course will cover changes in linguistic structure. We will trace the development of phonology, morphology, and lexicon from Vulgar Latin up through the present.
Cross-Listed as: FRIT 37.02
Distributive: Dist:QDS; WCult:W

LING 50.05 - History of Linguistics
This course covers the history of linguistics from ancient times up until the present, concentrating on 20th century. Major themes include: the controversy over the status of linguistics as a science; the recurrent conflict between theoretical and applied linguistics; the relation of trends in linguistics to general contemporaneous intellectual trends; and the relative importance of social factors in determining the acceptance of particular linguists’ ideas. Specific theoretical issues will also be considered, such as: the nature and significance of the phoneme; the degree to which syntax is independent of semantics and pragmatics; realist vs. nominalist views of linguistic description; and formalist vs. functionalist disagreements over the autonomy of language.
Distributive: Dist:TMV

LING 50.06 - Computational Psych of Language
Computational approaches are becoming increasingly prevalent in cognitive science and psychology as they allow us to leverage advances in robust datasets and computing power to investigate aspects of human cognition and behavior such as language. This course seeks to address the processing of language in the mind and brain through computational modeling. The goal of this course is to provide a broad understanding of research utilizing computational psycholinguistics to investigate how the human mind acquires, stores, and accesses language. This course will also serve as an introduction to methodology utilized in this field and provide hands-on opportunities to produce research focusing on language processing.
Cross-Listed as: COGS 50.06
Distributive: Dist:TAS

LING 54 - Foreign Study in Linguistics
Instructor: McPherson
This course is one of two local courses that will be taken by linguistics students on the Dartmouth Foreign Study Program at the University of Auckland in New Zealand. The course will be taught by one or more faculty at the University of Auckland. Although the content of the course may vary, the course will normally be an advanced level course on an aspect of the languages of the Pacific, Maori culture or Maori language. Credit is awarded to students who have successfully completed the designated course at the University of Auckland.
Prerequisite: LING 1 and one other Linguistics course in the 20s.
Distributive: SOC

LING 80 - Seminar in Linguistics
Instructor: Peterson
Offered every Spring. Seminar topic will vary according to instructor.
Prerequisite: Prerequisite: two or more 20s-level LING courses, or permission of instructor.

LING 80.07 - Advanced Linguistics Seminar: Variation and Dialects
Instructor: Standford
Regional dialects have always stimulated popular interest and curiosity. Variation is a key part of linguistics that can be objectively investigated in terms of regional dialects and also age, gender, ethnicity, social class, speech style, and other factors. This course examines a wide range of issues in linguistic variation using the latest empirical and analytical methods and theoretical perspectives. The course includes opportunities for "hands-on" field projects and laboratory research.
Distributive: Dist:SOC

LING 80.08 - Nonconcatenative Morphology
Instructor: McPherson
The field of morphology investigates word structure: How are complex words built up from their component parts? Arguably the most common kind of morphology, affixation and compounding are concatenative: two or more separable morphemes are combined to create a complex word. This course focuses on the more challenging set of phenomena known as nonconcatenative morphology: those cases where a clean line cannot be drawn between morphemes. We will explore a range of data patterns included under this heading, including Semitic root-and-pattern morphology, grammatcal tone, reduplication, ablaut, truncation, and consonant mutation. We will then evaluate formal approaches to nonconcatenative morphology, which pushes most theoretical frameworks of morphology to their limits.
Distributive: Dist:QDS

LING 85 - Independent Study and Research
Instructor: Stanford
This course offers qualified students of linguistics the opportunity to pursue work on a topic of special interest through an individually designed program. Requires permission of the instructor and the Chair.

**LING 86 - Honors Research**
Instructor: Stanford

Linguistics 86 and 87 consist of independent research and writing on a selected topic under the supervision of a Program member who acts as advisor. Open to honors majors in Linguistics. Permission of the thesis advisor and the Chair required.

**LING 87 - Honors Thesis**
Instructor: Stanford

Linguistics 86 and 87 consist of independent research and writing on a selected topic under the supervision of a Program member who acts as advisor. Open to honors majors in Linguistics. Permission of the thesis advisor and the Chair required.

**Literature in Translation**

**COURSE LISTING**

**Minor in Materials Science**
Joseph J. BelBruno, Director, Nanomaterials Center
Ian Baker, Sherman Fairchild Professor of Engineering

The minor in Materials Science is sponsored by faculty in Chemistry, Physics and Engineering who share an interest in interdisciplinary education and research in materials science. The program is coordinated through the Center for Nanomaterials Research at Dartmouth. The minor can be readily combined with majors in any of the three departments.

*Prerequisites:* The necessary background is obtained by completion of CHEM 5 and CHEM 6, and PHYS 13 and PHYS 14 or equivalent courses.

*Requirements:* A total of four additional courses are required. These must include ENGS 24 and PHYS 76 or ENGS 137. Two electives courses are chosen from the following combinations: ENGS 131 or PHYS 73; ENGS 74; CHEM 108 or CHEM 109; ENGS 73, ENGS 132 or PHYS 43. (If ENGS 137 is taken, one of the electives must be from outside the engineering department.)

**Mathematics - Undergraduate**
Chair: Sergi Elizalde
Vice Chair: Marcia Groszek


To view Mathematics Undergraduate courses, click here.  (p. 503)

To view Mathematics Graduate requirements, click here.  (p. 790)

To view Mathematics Graduate courses, click here.

See the Department website for projected terms for future course offerings.

Please note that course meeting times and instructors are subject to change until the Timetable of Class Meetings for the specific term is published by the Registrar’s Office.

**Introductory Courses**
The four courses MATH 1, MATH 3, MATH 8, and MATH 13 provide a coherent four-term sequence in calculus. MATH 1, MATH 3 and MATH 8 cover the basic calculus of functions of a single variable, as well as vector geometry and calculus of scalar-valued functions of several variables. In addition, the latter two courses are prerequisite for many advanced courses in Mathematics and Computer Science. MATH 13 covers the basic calculus of vector-valued functions of several variables. MATH 11 is a special version of MATH 13 and MATH 9 is a special version of MATH 8, both for first-year students with two terms of advanced placement. Most students planning advanced work in mathematics or the physical sciences will need an additional course in calculus, MATH 23. Students with two terms of advanced placement credit who possibly are interested in a mathematics major or minor should consider MATH 17 as an option in their second term. MATH 17, “An Introduction to Mathematics Beyond Calculus,” is a course designed for students interested in learning about some of the aspects of mathematics not usually encountered in the first years of mathematical studies. Topics change from year to year but may include aspects of combinatorics, algebra, analysis, number theory, geometry, and/or topology. Students planning to take upper-level mathematics courses are encouraged to take MATH 22 or MATH 24 (linear algebra) early in their curriculum. MATH 19, Introduction to Set Theory, is an introductory course that also provides good preparation for upper-level mathematics courses.
A student wishing to devote only two to three terms to the study of mathematics is encouraged to choose among courses MATH 1, MATH 3, MATH 5, and MATH 10. MATH 1 and MATH 3 will introduce the student to the ideas and applications of the differential and integral calculus depending on their background. MATH 5 is a topics and sometimes interdisciplinary course. Recent topics include “Machine Readings: Text Analysis in the Information Age,” “Geometry in Art and Architecture,” “Applications of Calculus to Medicine and Biology,” “Music and Computers,” “The Mathematics of Music and Sound,” “Fundamental Applied Mathematics for the Sciences” and “Geometry and the Imagination.” MATH 10 covers the fundamental concepts of statistics.

The Mathematics Department offers two distinct majors: (I) The Major in Mathematics and (II) The Major in Mathematical Data Science.

I. THE MAJOR IN MATHEMATICS

The major in mathematics is intended both for students who plan careers in mathematics and related fields, and for those who simply find mathematics interesting and wish to continue its study. The content of the major is quite flexible, and students may select courses largely to reflect their interests. Students who major in mathematics have an opportunity to participate in activities that bring them in close contact with a faculty member—for example, through a small seminar or through an independent research project under the direction of a faculty member. In addition to regular course offerings, a student with specialized interests, not reflected in our current course offerings, can arrange for an independent reading course. Proposals for independent activities should be directed to the Advisor to Majors.

In general, the mathematics major requires the student to pass eight mathematics or computer science courses beyond prerequisites. At least six of the required eight courses must be mathematics, and at least four of these courses must be taken at Dartmouth. In addition, a student must fulfill the College’s requirement for a culminating experience (which may or may not be part of the eight major courses). These eight courses must include:

1. (Algebra) MATH 31 or MATH 71;
2. (Analysis) At least one of MATH 35, MATH 43, or MATH 63;
3. Six additional Mathematics/Computer Science courses numbered 20 or above for Mathematics, and 30 or above for Computer Science.

Caveats:
Also acceptable: MATH 17, MATH 19
Not acceptable: MATH 97, COSC 99

At most two Computer Science courses may be used. The culminating experience requirements are described in a separate section below.

Choosing Courses for the Major

While the student interested only in a general exposure to mathematics may choose their major courses subject only to the constraints above, those with more focused interests (pure mathematics, applied mathematics, and mathematics education), will want to consider the course recommendations below.

1. (Pure Mathematics) For students interested in pure mathematics, MATH 24 is preferable to MATH 22 as prerequisite.

We recommend that the following courses be included among the eight courses needed for the major:
(Algebra) MATH 71 and MATH 81;
(Analysis) MATH 63, and MATH 43 or MATH 73;
(Topology/Geometry) MATH 54, and at least one of MATH 32, MATH 42 or MATH 72, MATH 74.
Students planning to attend graduate school should take substantially more than the minimum requirements for the major. In particular, such students are strongly urged to take both MATH 43 and MATH 73; moreover, undergraduates with adequate preparation are encouraged to enroll in graduate courses.

2. (Applied Mathematics) Applied mathematics now encompasses a wide expanse of mathematical activity in the sciences, ranging across finance, sociology, psychology, biology, physics, computer science, and engineering. Students interested in applied mathematics, especially those considering graduate school in applied mathematics or any of the sciences, are advised to take MATH 23, MATH 20 or MATH 60, MATH 46, and MATH 40.

We recommend choosing additional courses from among the following: MATH 26, MATH 28, MATH 36, MATH 38, MATH 42, MATH 43, MATH 46, MATH 53, MATH 75, MATH 76.
We do not make any specific recommendations concerning the choice of MATH 22 versus MATH 24 as prerequisite.
and the choices for requirements (1) Algebra and (2) Analysis; these choices depend on the interest of the student.
All students planning to attend graduate school should take substantially more than the minimum requirements for the major. In particular, undergraduates with adequate preparation are encouraged to enroll in graduate courses.

3. (Mathematics Education) Certification as a public school Mathematics teacher is available through partnership with the Education Department. Contact the Education Department for details about course requirements.
Students who are considering a career in teaching should pay close attention to the recommendations of the National Council of Teachers of Mathematics (NCTM). The NCTM has endorsed a series of recommendations for a suggested course of study for those people interested in teaching mathematics at the secondary level. In general, their recommendations (www.nctm.org) are for a vigorous course of study. At the moment, these recommendations far exceed the requirements for obtaining a teaching certificate, but indicate the direction in which the NCTM hopes that educators will proceed. Highly qualified teachers in the elementary and secondary schools are of vital national importance, and these guidelines should be carefully considered. Dartmouth courses that closely fit the recommendations of the NCTM are (in addition to the prerequisites): MATH 20 or MATH 60; MATH 23 or MATH 36; MATH 25 or MATH 75; MATH 28, MATH 38 or MATH 68; MATH 31 or MATH 71; MATH 32 or MATH 42 or MATH 72; MATH 35 or MATH 43 or MATH 63; MATH 40

Culminating Experience
The Department will accept any of the following in satisfaction of the requirement of a culminating experience:
1. Submission of an Honors thesis acceptable for honors or high honors.
2. Satisfactory completion of any graduate course in mathematics except MATH 147.
3. Satisfactory completion of a one-term independent research project (subject to approval by the advisor to majors).
4. Satisfactory completion of an advanced undergraduate course from among: MATH 66, MATH 68, MATH 69, MATH 70, MATH 72, MATH 73, MATH 74, MATH 75, MATH 76, MATH 81, MATH 86, MATH 96.

II. THE MAJOR IN MATHEMATICAL DATA SCIENCE
Statistics has become a ubiquitous tool not only in traditional areas in the natural and social sciences, but in emerging cross-disciplinary fields in data science. The major combines a solid theoretical foundation with application to one or more fields of study.
Prerequisites: MATH 3, MATH 8, MATH 13; MATH 22 or 24; COSC 1 or other programming experience.
Four course are required: MATH 20, MATH 40, MATH 50, and MATH 70.
Students must also satisfy a computational requirement for the major, selecting at least one of either COSC 35 or COSC 74. Students taking both of these courses may count additional selections as partially satisfying the next requirement.
Further students must select three courses from the following list. At the discretion of the Adviser to Majors, other courses can be substituted.
MATH 76, MATH 86, MATH 96, MATH 116, MATH 120, MATH 126;
QSS 41, QSS 45;
BIOL 29, BIOL 47, BIOL 59;
COSC 35, COSC 74 (see above);
ECON 20, ECON 80:
QBS 149.

Culminating Experience: Majors in Mathematical Data Science must complete a data intensive research project to satisfy the culminating experience. Students may complete this by writing a thesis, completing an independent research project, or completing a course with a significant statistical project. The culminating experience must be approved in advance by the Adviser to Majors.

Minors in Mathematics
The following minors are available to all students who are not majoring in mathematics and who do not have a modified major with the Mathematics Department. For each minor, the prerequisites and required courses are listed below. Approval of a minor can be obtained through the Department’s Advisor to Mathematics Majors.

I. Mathematics
Prerequisites: MATH 3, MATH 8, MATH 13, MATH 22
Required Courses (4 courses): MATH 31 or MATH 71; MATH 35 or MATH 43 or MATH 63; plus two other Mathematics courses numbered 20 or above. MATH 17 is also acceptable.

II. Applied Mathematics for Physical and Engineering Sciences
Prerequisites: MATH 3, MATH 8, MATH 13 or MATH 22, COSC 1
III. Applied Mathematics for Biological and Social Sciences

Prerequisites: MATH 3, MATH 8, MATH 13, MATH 22

Required Courses (5 courses): MATH 20, MATH 23, MATH 27, MATH 28 or MATH 36, MATH 40* or MATH 53 or MATH 76.

IV. Mathematical Biology

Prerequisites: MATH 3, MATH 8, MATH 13, and either MATH 22 or MATH 23; MATH 10 or BIOL 29

Required Courses (4 courses): Two courses chosen from among MATH 26, MATH 27, MATH 36, MATH 40*; and two courses chosen from among BIOL 21/BIOL 51, BIOL 39, BIOL 47, BIOL 59, COSC 75, MATH 37, MATH 47 and ENGS 41 (p. 273).

V. Mathematical Logic

Prerequisites: MATH 3, MATH 8, MATH 24 (MATH 22 by permission)

Required Courses (5 courses): MATH 19; MATH 29 or COSC 39; MATH 39 or MATH 69; MATH 63 (not MATH 35); one additional course chosen from among MATH 31, MATH 71, MATH 54, PHIL 32, MATH 29 if COSC 39 is taken as a required course.

VI. Mathematical Physics

This minor is sponsored by the faculty in Mathematics and Physics. It may be combined with majors in either of the two departments, or any other department. Students majoring in both physics and mathematics cannot take the minor.

Prerequisites: PHYS 13, PHYS 14, PHYS 19 (or PHYS 15 and PHYS 16), and PHYS 40, MATH 3, MATH 8, MATH 13, and MATH 22 or MATH 24.

Requirements: A total of four additional courses are required. These must include MATH 23 and MATH 46. Mathematics majors must choose two elective physics courses from the following list; physics majors must choose two elective mathematics courses; students majoring in a department other than mathematics or physics must choose one math and one physics course.

PHYS 30, PHYS 31 (p. 588), PHYS 41, PHYS 43, PHYS 44, PHYS 47, PHYS 66, PHYS 50, PHYS 72, PHYS 75, PHYS 77, PHYS 90 (p. 591). [NOTE: PHYS 50 requires PHYS 40]

MATH 31 or MATH 71, MATH 42, MATH 43, MATH 53, MATH 54, MATH 63, MATH 66, MATH 73, MATH 76.

An advanced undergraduate or graduate level physics or mathematics course may be substituted, with permission from the physics or mathematics department undergraduate advisor. No course may count towards both the major and minor.

VII. Mathematical Finance

Mathematical Finance is an interdisciplinary minor that will provide students with the opportunity to see how mathematics, economics and computer science can be used to study theoretical and applied problems arising in economics, finance and risk management. The minor requires students to take 5 courses beyond the prerequisites. To allow for maximum flexibility in scheduling, students are encouraged to complete (either MATH 60 or both MATH 20 and MATH 40*), MATH 23 and COSC 1 by the end of their sophomore year as these courses are requirements for MATH 86, which serves as the capstone for the minor.

Prerequisites: MATH 3, MATH 8, MATH 13, MATH 22 or MATH 24, COSC 1, ECON 21.

Required Courses (5 courses): MATH 60 or both Math 20 and Math 40*, MATH 23, MATH 86, ECON 26, ECON 36

VIII. Complex Systems

Complex Systems is an interdisciplinary field that integrates ideas and techniques from mathematics and the sciences to study emergent phenomena, generally characterized by an evolutionary nature in which the “whole is more than the sum of its parts.” Examples include the collective of species-species interactions that give rise to an ecosystem, the aggregate of buyer-seller interactions that create economies or markets, the neuron-neuron signalings that create the brain and mind, or individual social relationships that result in a coherent society, all of which display properties of adaptation and selection and multiscale structure. The study of complex systems is highly interdisciplinary, at its best, using insights into the etiology of one phenomenon to inform another, a kind of analogical reasoning made possible through the use of common mathematical and computational tools.

The minor requires students to take 5 courses beyond the prerequisites and includes the accomplishment of an integrative independent project, advised by a faculty member in mathematics, as evidence of the ability to integrate these ideas into a coherent whole.

Prerequisites: MATH 3, MATH 8, MATH 13, MATH 22 or MATH 24; One of COSC 1, COSC 3, COSC 8, COSC 10 or ENGS 20; BIOL 11 or PHYS 30/ENGS 30.

Required Courses:
IX. Minor in Statistics

It is difficult to overstate the importance of statistical training in the twenty-first century, especially in today’s (and the future) job market. Students completing this minor will have the skills to perform advanced statistical analyses and with the accompanying accreditation will be able to compete successfully for employment and professional school admission.

Prerequisites: MATH 3, MATH 8, MATH 13; MATH 22; COSC 1 or ENGS 20 or Permission of the Instructor.

Required Courses (4 courses): MATH 20 (or MATH 60), MATH 40*, MATH 70 and one other major level course in Mathematics. At the discretion of the Advisor to Majors, students may substitute MATH 30, BIOL 15, BIOL 16: ECON 29, ECON 49, ECON 76; SOCY 16, SOCY 27; EARS 15, EARS 67; PSYC 40/COSC 79, PSYC 46; PHYS 30, PHYS 43; COSC 58, COSC 75, COSC 79, COSC 81; CHEM 41, CHEM 75; ENGS 30, ENGS 35, ENGS 114 (p. 771). Students may substitute for the additional course either in biology, chemistry, economics, sociology, environmental sciences, computer science, physics, or psychological and brain sciences with the approval of the advisor to majors.

*NOTE: Prior to Fall 2014, Math 40 was numbered Math 50 and can be used accordingly.

The Honors Program in Mathematics

A student who satisfies the requirements of the College for admission to the Honors Program and is interested in doing independent work is strongly encouraged to participate in the departmental Honors Program. Students who successfully complete the Honors Program will have their degrees conferred with ‘Honors’ or ‘High Honors’ in mathematics; high honors is awarded only if the student submits a written thesis. Interested students should read this section of the ORC carefully and consult the Advisor to Majors. This program can be especially important to those who contemplate graduate work in mathematics or a related field.

Admission: Admission to the Honors Program requires a general College average of B, and a B average in the Mathematics Department at the time of admission and at the time of graduation. Moreover, a B+ average is required in the work of the Honors Program. The B average in the Department is computed as follows: Courses prerequisite to the major and undergraduate research courses (MATH 97) are not counted, but all other courses titled (or cross listed with) mathematics which the student has taken are counted, whether or not these courses form part of the student’s formal major. In the case of a modified major, this average may include courses outside the Mathematics Department. The B+ average required in the work of the Honors Program is defined to be a grade of B+ given by the faculty advisor on the research project. Questions about this requirement should be directed to the Advisor to Majors.

Requirements: Under the supervision of a faculty member, the student must complete an independent research project or thesis beyond what is required as part of a course. Often the subject of the project or thesis will be motivated by concepts or the content of an advanced seminar or course in which the student has participated, and, typically, the project or thesis will be completed over a period of three terms. The student should consult with his/her prospective faculty advisor and submit to the Advisor to Mathematics Majors a brief written proposal of the project that has the written approval of the faculty advisor. The Advisor to Majors will then review the student’s proposal and the courses that have been selected for the Honors major. Approval of the proposal and course selection constitutes formal admission into the Honors Program. This procedure should be completed by the beginning of fall term of the student’s senior year. The student may then register for (at most two terms of) MATH 97, Undergraduate Research.

In the first week of the student’s final term in residence, the student must register with his/her faculty advisor for ‘Honors Thesis/Project Supervision.’ This is not an official College course; rather, it represents a declaration of intent to the Department that the student wishes to be considered for honors at the time of graduation. Forms for this purpose are available from the Advisor to Majors. No student who has failed to file this intent form with the Advisor to Majors will be considered for honors in the major.

After the thesis is completed and submitted to the faculty advisor, the student will give a short presentation of their results. The advisor can then offer a recommendation for honors or high honors on behalf of the student; this recommendation must be ratified by a vote of the Department faculty.

Modified Majors

Modified Major with Mathematics as the primary Department

Prerequisite: Same as mathematics major plus some additional prerequisites from modifying major (subject to approval of Advisor to Majors).
Requirements: An algebra and an analysis course that satisfy the requirements of the mathematics major, together with four additional Mathematics courses that normally count towards the major in mathematics, including one course that satisfies the culminating experience requirement (choice subject to approval of Advisor to Majors). Subject to the approval of the Advisor to Majors, the algebra course can be replaced by one of the following courses: MATH 28, MATH 38, MATH 54, MATH 69.

Four additional courses from the secondary department selected with the approval of the Advisor to Majors and the secondary department. In particular, these ten non-prerequisite courses must form a coherent unit that renders the modified major academically more valuable than an abbreviated major together with a minor in the secondary department.

Mathematics Modified with Biology
Prerequisite: MATH 3, MATH 8, MATH 13, MATH 22. Students may replace MATH 22 with MATH 24 if they prefer.

Requirements: All students pursuing this modified major must complete an algebra and an analysis course which would satisfy the requirements for the Mathematics major, together with four additional courses that normally count towards the major in mathematics. One of these courses must fulfill the culminating experience requirement and two of these courses must be from the following list: MATH 20, MATH 27, MATH 36, MATH 46, MATH 40*, MATH 53 and MATH 76.

All students pursuing the modified major must take one course from among BIOL 12 (Cell Structure and Function), BIOL 13 (Gene Expression and Inheritance), BIOL 14 (Physiology), BIOL 15 (Genetic Variation and Evolution) or BIOL 16 (Ecology) and three other biology courses from the list below. One additional course from among BIOL 12 - 16 may be used as one of the three additional courses. These should be chosen in consultation with the departments. Some possible areas of focus include:

Genomics: BIOL 47 (p. 165) (From Data to Analysis),
Biostatistics & Experimental Design: BIOL 22 (Methods in Ecology), BIOL 29 (Biostatistics), BIOL 59 (Advanced Biostatistics).


Molecular & Cellular Biology: BIOL 38 (Experimental Genetic Analysis), BIOL 40 (Biochemistry), BIOL 45 (Molecular Biology), BIOL 66 (Molecular Basis of Cancer), BIOL 69 (Cell Signaling), BIOL 71 (Advanced Topics in Cell Biology).

In every case, the collection of courses must be approved. Majors should demonstrate a coherent intellectual rationale.

Modified Major in Mathematics with Philosophy
Prerequisite: MATH 3, MATH 8, MATH 13, MATH 24 (MATH 22 with permission); PHIL 1, PHIL 6.

Requirements: To complete the major, it is necessary to complete successfully at least six mathematics courses and four philosophy courses (as described below) in addition to the prerequisites, including a culminating experience. MATH 69 satisfies the culminating experience requirement. Modified majors may participate in the honors program and write an honors thesis. The required courses are: MATH 19, MATH 31 or MATH 71, MATH 35 or MATH 63, MATH 29 (COSC 39 may be substituted), MATH 39 or MATH 69, and an additional mathematics course numbered 20 or above, excluding MATH 97 (MATH 17 is also acceptable). Four philosophy courses chosen from among PHIL 26, PHIL 27, PHIL 29, PHIL 32, PHIL 33, PHIL 34 (p. 570).

Modified Major for Complex Systems

Complex Systems is an interdisciplinary field that integrates ideas and techniques from mathematics and the sciences to study emergent phenomena, generally characterized by an evolutionary nature in which the “whole is more than the sum of its parts.” Examples include the collective of species-species interactions that give rise to an ecosystem, the aggregate of buyer-seller interactions that create economies or markets, the neuron-neuron signalings that create the brain and mind, or individual social relationships that result in a coherent society, all of which display properties of adaptation and selection and multiscale structure. The study of complex systems is highly interdisciplinary, at its best, using insights into the etiology of one phenomenon to inform another, a kind of analogical reasoning made possible through the use of common mathematical and computational tools.

The major requires students to take 10 courses beyond the prerequisites, 6 in mathematics and 4 in other departments, and includes the accomplishment of an integrative independent project, advised by a faculty member in mathematics, as evidence of the ability to integrate these ideas into a coherent whole. This independent project satisfies the culminating experience requirement. Modified majors may participate in the mathematics department honors program; with the approval of the advisor to majors, the independent project may comprise part of an honors thesis project.
In every case, the collection of courses should be approved. Majors should demonstrate a coherent intellectual rationale.

Prerequisites: MATH 3, MATH 8, MATH 13, MATH 22 or MATH 24; One of COSC 1, COSC 3, COSC 8, COSC 10, or ENGS 20; BIOL 11 or PHYS 30/ENGS 30.

Required Courses:
(a) A course in differential equations (MATH 23 or MATH 46);
(b) A course in probability or statistics (MATH 20, MATH 40*, or MATH 60);
(c) Two courses from among MATH 27, MATH 36, MATH 53, MATH 76, at least one of which must be either MATH 36 or MATH 76.
(d) MATH 87 (Note that students will need to find an advisor for their MATH 87 project, which must be integrative in nature);
(e) One course from among MATH 31, MATH 35, MATH 43, MATH 63, and MATH 71.
(f) Four courses chosen from BIOL 15, BIOL 16; ECON 29, ECON 49, ECON 76; SOCY 16, SOCY 27; EARS 15, EARS 67; PSYC 40/COSC 79, PSYC 46; PHYS 30, PHYS 43; COSC 58, COSC 75, COSC 81; CHEM 41, CHEM 75; ENGS 30, ENGS 35, ENGS 114. With the approval of the advisor to majors, students may replace up to two of these courses with other appropriate courses in biology, chemistry, economics, sociology, environmental sciences, computer science, physics, or psychology, or, with a compelling rationale, another department.

Courses
Course Numbering System: For most courses numbered 20 or above, the last digit in the course number indicates the field of mathematics as follows: probability and statistics, 0; algebra, 1; geometry, 2; analysis, 3; topology, 4; number theory, 5; applications, 6; combinatorics, 8; logic and foundations, 9.

Course Prerequisites: In all cases in which a prerequisite to a course is listed, the honors or advanced placement equivalent of that course may be substituted. For example, wherever MATH 13 appears as a prerequisite, MATH 14 will serve. MATH 11 and MATH 12 also serve in place of MATH 13 as a prerequisite.

Please note that course meeting times and instructors are subject to change until the Timetable of Class Meetings for the specific term is published by the Registrar’s Office.

MATH - Mathematics - Undergraduate Courses
To view Mathematics Undergraduate requirements, click here. (p. 497)
To view Mathematics Graduate requirements, click here. (p. 790)
To view Mathematics Graduate courses, click here.
See the Department website for projected terms for future course offerings.
Please note that course meeting times and instructors are subject to change until the Timetable of Class Meetings for the specific term is published by the Registrar’s Office.

MATH 1 - Introduction to Calculus
Instructor: The Staff, The Staff, The Staff, The Staff
This course is an introduction to single variable calculus for students who have not taken calculus before. Students who have seen some calculus, but not enough to place out of MATH 3, should take MATH 3. MATH 1 reviews relevant techniques from algebra and pre-calculus, covers the manipulation and analysis of functions, including polynomial, trigonometric, logarithmic, and exponential functions, an introduction to convergence and limits, continuity, rates of change and derivatives, differentiation rules, and applications to approximation. Students wishing to continue their study of calculus after MATH 1 take MATH 3.
Distributive: QDS

MATH 3 - Calculus
Instructor: Pauls, The Staff, The Staff, The Staff, The Staff
This course is an introduction to single variable calculus aimed at students who have seen some calculus before, either before matriculation or in MATH 1. MATH 3 begins by revisiting the core topics in MATH 1 - convergence, limits, and derivatives - in greater depth before moving to applications of differentiation such as related rates, finding extreme values, and optimization. The course then turns to integration theory, introducing the integral via Riemann sums, the fundamental theorem of calculus, and basic techniques of integration.
Distributive: QDS
MATH 4 - Applications of Calculus to Medicine and Biology

This course will establish the relevance of calculus to medicine. It will develop mathematical tools extending the techniques of introductory calculus, including some matrix algebra and solution techniques for first order differential equations. These methods will be used to construct simple and elegant models of phenomena such as the mutation of HIV, spread of infectious disease, and biological disposition of drugs and inorganic toxins, enzyme kinetics and population growth.

Prerequisite: MATH 3. Note: This is a sequel to MATH 3, but it does not cover the same material as MATH 8, and does not serve as a prerequisite for MATH 13. There is a version of this course suitable for major credit: see MATH 27.

Distributive: QDS

MATH 5.01 - Computational Text Analysis for the Social Sciences

Language is the medium for politics and political conflict. Candidates debate during elections. Representatives write laws. Nations negotiate peace treaties. Clerics issue Fatwas. Citizens express their opinions about politics on social media sites. These examples, and many others, suggest that to understand what politics is about, we need to know what political actors are saying and writing. This course introduces techniques to collect, analyze, and utilize large collections of text for social science inferences. Students will also have the opportunity to develop their programming abilities.

We will explore a range of datasets from the text of The Federalist Papers to the millions of tweets sent to and from members of Congress.

Prerequisite: GOVT/ECON/PSYC/SOCY/MATH 10 or QSS 15 or COSC 1
Cross-Listed as: GOVT 19.05 QSS 30.02
Distributive: Dist:TLA

MATH 5.04 - Fundamental Applied Mathematics for the Sciences

Mathematics is the language of science. However, mathematics preparation for most science students typically involves only the study of calculus at the university level. While many scientific problems involve calculus, two other areas of mathematics are equally (if not more) important: linear algebra and probability. For example, linear algebra is fundamental to stoichiometry and the conservation of matter in chemistry, hydrology and atmospheric dynamics in earth sciences, and cell growth and population dynamics in biology. Moreover, most features of the natural world are probabilistic and frequently best described by probability models, such as the firing of neurons in the brain or the timing of earthquakes. Both are also central to all problems in statistics. This course will explore the application of linear algebra and probability to problems across the sciences. We will cover the basics of solving linear algebra and probability problems as well as formulating simple models to describe and analyze natural phenomena from across the sciences.

Cross-Listed as: BIOL 5
Distributive: QDS

MATH 7 - First-Year Seminar in Mathematics

MATH 8 - Calculus of Functions of One and Several Variables

Instructor: Wang, Petkova, The Staff (fall), Lafreniere, Tyomkin (winter), Chen, Petok(spring)

This course is a sequel to MATH 3 and is appropriate for students who have successfully completed an AB calculus curriculum (or the equivalent) in secondary school. Roughly half of the course is devoted to topics in one-variable calculus, selected from techniques of integrations, areas, volumes, numerical integration, sequences and series including Taylor series, ordinary differential equations and techniques of their solution. The second half of the course studies scalar valued functions of several variables. It begins with the study of vector geometry, equations of lines and planes, and space curves (velocity, acceleration, arclength). The balance of the course is devoted to studying differential calculus of functions of several variables. Topics include limits and continuity, partial derivatives, tangent planes and differentials, the Chain Rule, directional derivatives and applications, and optimization problems including the use of Lagrange multipliers.

Prerequisite: MATH 3 or equivalent.
Distributive: QDS

MATH 9 - Multivariable Differential Calculus with Linear Algebra

Instructor: Schembri, Assaf

This course includes the multivariable calculus material present in MATH 8 along with a brief introduction to concepts from linear algebra, a topic pervasive throughout mathematics and its applications. The introduction to linear algebra enables a more thorough understanding of multivariable calculus. Topics include vector geometry, equations of lines and planes, matrices and linear transformations, space curves (velocity, acceleration, arclength), functions of several variables (limits and continuity, partial derivatives, the derivative as a linear transformation, tangent planes and linear approximation, the Chain Rule, directional derivatives and applications,
and optimization problems including the use of Lagrange multipliers).

First-year students who have successfully completed a BC calculus curriculum in secondary school may complete multivariable calculus either by taking the two-term sequence MATH 9, 13 or by taking the single faster-paced course MATH 11, which covers the second half of Math 8 together with the material from Math 13 in a single term.

Prerequisite: Advanced placement into MATH 9 or MATH 11.

Distributive: Dist:QDS

MATH 10 - Introductory Statistics

Instructor: Choi, van Erp

An introduction to the basic concepts of statistics. Topics include elementary probability theory, descriptive statistics, the binomial and normal distributions, confidence intervals, basic concepts of tests of hypotheses, chi-square tests, nonparametric tests, normal theory t-tests, correlation, and simple regression. Packaged statistical programs will be used. Because of the large overlap in material covered, no student may receive credit for more than one of the courses ECON 10, ENVS 10, GOVT 10, MATH 10, PSYC 10, QSS 15, and SOCY 10, except by special petition to the Committee on Instruction.

Distributive: Dist:QDS

MATH 11 - Accelerated Multivariable Calculus

Instructor: Voight, van Wyk, Shu, Tyomkin

This briskly paced course can be viewed as equivalent to MATH 13 in terms of prerequisites, but is designed especially for first-year students who have successfully completed a BC calculus curriculum in secondary school. In particular, as part of its syllabus it includes most of the multivariable calculus material present in MATH 8 together with the material from MATH 13. Topics include vector geometry, equations of lines and planes, and space curves (velocity, acceleration, arclength), limits and continuity, partial derivatives, tangent planes and differentials, the Chain Rule, directional derivatives and applications, and optimization problems. It continues with multiple integration, vector fields, line integrals, and finishes with a study of Green's and Stokes' theorem.

Students who have successfully completed a BC calculus curriculum in secondary school may complete multivariable calculus either by taking the two term sequence MATH 9 and MATH 13 or by completing the single, faster-paced, MATH 11. Not open to students who have received credit for MATH 013.

Prerequisite: MATH 8

Distributive: Dist:QDS

MATH 13 - Calculus of Vector-Valued Functions

Instructor: Miller (fall), Wong, Wong, Miller (winter), Wong, Wang (spring)

This course is a sequel to MATH 8 and provides an introduction to calculus of vector-valued functions. Topics include differentiation and integration of parametrically defined functions with interpretations of velocity, acceleration, arclength and curvature. Other topics include iterated, double, triple and surface integrals including change of coordinates. The remainder of the course is devoted to vector fields, line integrals, Green's theorem, curl and divergence, and Stokes' theorem.

Prerequisite: MATH 8 or Math 9 or equivalent. Note: First-year students who have received two terms of credit from the AP-BC exam generally should take MATH 11 instead. On the other hand, if the student has had substantial exposure to multivariable techniques, they are encouraged to consult with the First-Year Advisor for Mathematics during orientation week to determine if placement into MATH 13 is more appropriate.

Distributive: QDS

MATH 17 - An Introduction to Mathematics Beyond Calculus

Instructor: Petkova (winter), TBS (spring)

Gives prospective Mathematics majors an early opportunity to delve into topics outside the standard calculus sequence. Specific topics will vary from term to term, according to the interests and expertise of the instructor. Designed to be accessible to bright and curious students who have mastered BC Calculus, or its equivalent. This course counts toward the Mathematics major, and is open to all students, but enrollment may be limited, with preference given to first-year students.

Prerequisite: MATH 8

Distributive: QDS

MATH 19 - Introduction to Set Theory

Instructor: Groszek

This course introduces the axioms of set theory, the universe of sets, and set theory as a foundation for mathematics. It touches on historical and philosophical aspects of set theory. Mathematical topics covered include the algebra of sets, ordinals and cardinals, transfinite induction and recursion, and the axiom of choice. Students will learn language and concepts used throughout mathematics, and learn how to write mathematical proofs.

Distributive: Dist:QDS

MATH 20 - Probability

Instructor: Glaubitz (fall), The Staff (spring)
Our capacity to fathom the world around us hinges on our ability to understand quantities which are inherently unpredictable. Therefore, in order to gain more accurate mathematical models of the natural world we must incorporate probability into the mix. This course will serve as an introduction to the foundations of probability theory. Topics covered will include some of the following: (discrete and continuous) random variable, random vectors, multivariate distributions, expectations; independence, conditioning, conditional distributions and expectations; strong law of large numbers and the central limit theorem; random walks and Markov chains. There is an honors version of this course: see MATH 60.

Prerequisite: MATH 8.

Distributive: QDS

MATH 22 - Linear Algebra with Applications

Instructor: Wang, The Staff (fall), Orellana, Orellana, Rockmore (spring)

This course presents the fundamental concepts and applications of linear algebra with emphasis on Euclidean space. Significant goals of the course are that the student develop the ability to perform meaningful computations and to write accurate proofs. Topics include bases, subspaces, dimension, determinants, characteristic polynomials, eigenvalues, eigenvectors, and especially matrix representations of linear transformations and change of basis. Applications may be drawn from areas such as optimization, statistics, biology, physics, and signal processing. Students who plan to take either MATH 63 or MATH 71 are strongly encouraged to take MATH 24.

Distributive: Dist:QDS

MATH 23 - Differential Equations

Instructor: Gelb, The Staff (fall), Choi, Shu (winter), Choi, Lee (spring)

This course is a survey of important types of differential equations, both linear and non-linear. Topics include the study of systems of ordinary differential equations using eigenvectors and eigenvalues, numerical solutions of first and second order equations and of systems, and the solution of elementary partial differential equations using Fourier series.

Prerequisite: MATH 13.

Distributive: QDS

MATH 24 - Linear Algebra

Instructor: Tyomkin (winter), Groszek (spring)

This course is an introduction to the fundamental concepts of linear algebra in abstract vector spaces. The topics and goals of this course are similar to those of MATH 22, but with an additional emphasis on mathematical abstraction and theory. (MATH 24 can be substituted for MATH 22 as a prerequisite for any course or program.)

Prerequisite: MATH 8.

Distributive: QDS

MATH 25 - Number Theory

Instructor: Petok

The great mathematician C. F. Gauss once wrote "Mathematics is the queen of sciences and number theory is the queen of mathematics." Number theory is that part of mathematics dealing with the integers and certain natural generalizations. Topics include modular arithmetic, unique factorization into primes, linear Diophantine equations, and Fermat's Little Theorem. Discretionary topics may include cryptography, primality testing, partition functions, multiplicative functions, the law of quadratic reciprocity, historically interesting problems.

Prerequisite: MATH 8.

Distributive: QDS

MATH 27 - Advanced Calculus and Dynamics in Biology and Medicine

Instructor: Shu

This course will prepare students to read the technical literature in mathematical biology, epidemiology, pharmacokinetics, ecological modeling and related areas. Topics include systems of nonlinear ordinary differential equations, equilibria and steady state solutions, phase portraits, bifurcation diagrams, and some aspects of stability analysis. Emphasis is placed on the student's ability to analyze phenomena and create mathematical models. This interdisciplinary course is open to mathematics majors, biology majors, and students preparing for a career in medicine.

Prerequisite: MATH 22. Note: Students without the mathematical prerequisites can take this course as MATH 4; no student may take both MATH 4 and MATH 27 for credit, and only MATH 27 is eligible to count towards the major in mathematics.

Distributive: QDS

MATH 28 - Introduction to Combinatorics

Instructor: Orellana

Beginning with techniques for counting permutations and combinations, inclusion-exclusion, recursions, and generating functions—the course then takes up graphs and directed graphs and ordered sets, and concludes with some examples of maximum-minimum problems of finite sets. Topics in the course have application in the areas of probability, statistics, and computing.

Prerequisite: MATH 8.
I. MAJORS AND THE MINOR OPEN TO THE CLASSES OF 2023 AND EARLIER

Distributive: QDS

**MATH 29 - Introduction to Computability**
Instructor: Miller

What does it mean for a function to be computable? This course examines several different mathematical formalizations of the notion of computability, inspired by widely varying viewpoints, and establishes the surprising result that all these formalizations are equivalent. It goes on to demonstrate the existence of noncomputable sets and functions, and to make connections to undecidable problems in other areas of mathematics. The course concludes with an introduction to relative computability. This is a good companion course to COSC 39; the two share only the introduction of Turing machines. Offered in alternate years.

Prerequisite: None, but the student must be willing to learn to work abstractly and to read and write proofs.

Distributive: QDS

**MATH 30.04 - Evolutionary Game Theory and Applications**
Instructor: Chu

Pioneered by John Maynard Smith and others, evolutionary game theory has become an important approach to studying a wide range of biological and social problems, such as microbial interactions and animal behavior. In evolutionary game dynamics, the fitness of individuals depends on the relative abundance of all individual types in the population, and higher-fitness individual types tend to increase in abundance. This course introduces basic concepts in evolutionary game theory, including evolutionarily stable strategies, replicator dynamics, finite populations, and games on networks, along with applications to social evolution, particularly to understanding human cooperation.

Prerequisite: Math 3 and Math 20

Cross-Listed as: QSS 30.04

Distributive: Dist:QDS

**MATH 31 - Topics in Algebra**
Instructor: Petok

This course will provide an introduction to fundamental algebraic structures, and may include significant applications. The majority of the course will consist of an introduction to the basic algebraic structures of groups and rings. Additional work will consist either of the development of further algebraic structures or applications of the previously developed theory to areas such as coding theory or crystallography. As a result of the variable syllabus, this course may not serve as an adequate prerequisite for MATH 81. Students who contemplate taking MATH 81 should consider taking MATH 71 instead of this course.

Prerequisite: MATH 22.

Distributive: QDS

**MATH 32 - The Shape of Space**
Instructor: Doyle

Topics in intuitive geometry and topology, for example: how to turn a sphere inside out; knots, links, and their invariants; polyhedra in 2, 3, and 4 dimensions; the classification of surfaces; curvature and the Gauss-Bonnet theorem; spherical and hyperbolic geometry; Escher patterns and their quotients; the shape of the universe. Offered in alternate years.

Prerequisite: MATH 22 or MATH 24.

Distributive: QDS

**MATH 35 - Real Analysis**
Instructor: van Wyk

This course introduces the basic concepts of real-variable theory. Topics include real numbers and cardinality of sets, sequences and series of real numbers, metric spaces, continuous functions, integration theory, sequences and series of functions, and polynomial approximation. Some applications of the theory may be presented. MATH 63 presents similar material, but from a more sophisticated point of view. This course may not serve as an adequate prerequisite for either MATH 73 or 83. Students who contemplate taking one of these two advanced courses should consider taking MATH 63 instead of this course.

Prerequisite: MATH 13 and permission of the instructor, or MATH 22.

Distributive: QDS

**MATH 36 - Mathematical Models in the Social Sciences**
Instructor: The Staff

Disciplines such as anthropology, economics, sociology, psychology, and linguistics all now make extensive use of
mathematical models, using the tools of calculus, probability, game theory, network theory, often mixed with a healthy dose of computing. This course introduces students to a range of techniques using current and relevant examples. Students interested in further study of these and related topics are referred to the courses listed in the Mathematics and Social Sciences program.

Prerequisite: MATH 13, MATH 20.

Cross-Listed as: QSS 36

Distributive: TAS

MATH 37 - Computational methods in mathematical biology

Introduction into cellular automata and agent-based modeling using the Java programming language. Focus of this course will be simulation of stochastic events, model parameterization and calibration, model validation, simulation and result visualization. This is a hands-on course with laboratory sessions and training exercises on individual computers.

Prerequisite: MATH 22 and MATH 24, MATH 23, one of COSC 1, COSC 10, ENGS 20 or equivalent experience.

Distributive: Dist:QDS

MATH 38 - Graph Theory

Instructor: Lafreniere

The theory of graphs has roots in both practical and recreational mathematics. Today there are major applications of graph theory in management science (operations research) and computer science. This course is a survey of the theory and applications of graphs. Topics will be chosen from among connectivity, trees, and Hamiltonian and Eulerian paths and cycles; isomorphism and reconstructability; planarity, duality, and genus; independence and coloring problems, including interval graphs, interval orderings and perfect graphs, color-critical graphs and the four-color theorem; matchings; network flows, including applications to matchings, higher connectivity, and transportation problems; matroids and their relationship with optimization.

Prerequisite: MATH 22 (or COSC 55 and permission of the instructor).

Distributive: QDS

MATH 40 - Probability and Statistical Inference

Instructor: Lee

Introduction to continuous probability and statistical inference for data analysis. Includes the theory of estimation and the theory of hypothesis testing using normal theory t-tests and nonparametric tests for means and medians, tests for variances, chi-square tests, and an introduction to the theory of the analysis of variance and regression analysis. Analysis of explicit data sets and computation are an important part of this hands-on statistics course. *NOTE: Prior to Fall 2014 Math 40 was numbered Math 50.

Prerequisite: MATH 13 and MATH 20, or permission of the instructor.

Distributive: QDS

MATH 42 - Differential Geometry I

Instructor: Chernov

This course will cover curves and surfaces in Euclidean 3-dimensional space. Topics include curvature and torsion of curves, the Frenet-Serret equations, Gaussian and mean curvature of surfaces, geodesics and parallel transport, isometries and Gauss's Theorem Egregium, the Riemann Curvature tensor. One or more of the following topics will be studied if time permits: vector fields, tangent bundles, hypersurfaces, connections, and curvature. Offered in alternate years.

Prerequisite: MATH 22 or permission of the instructor, and MATH 23.

Distributive: QDS

MATH 43 - Functions of a Complex Variable

Instructor: Williams

This course covers the differential and integral calculus of complex variables including such topics as Cauchy's theorem, Cauchy's integral formula and their consequences; singularities, Laurent's theorem, and the residue calculus; harmonic functions and conformal mapping. Applications will include two-dimensional potential theory, fluid flow, and aspects of Fourier analysis.

Prerequisite: MATH 13.

Distributive: QDS

MATH 46 - Introduction to Applied Mathematics

Instructor: Glaubitz

This course introduces a wide variety of mathematical tools and methods used to analyze phenomena in the physical, life, and social sciences. This is an introductory course and is accessible to undergraduate and graduate students in mathematics and other scientific disciplines who have completed the prerequisites. Topics include dimensional analysis and scaling, perturbation analysis, calculus of variations, integral equations, and eigenvalue problems.

Prerequisite: MATH 22 and MATH 23, or permission of the instructor.

Distributive: Dist:TAS
MATH 47 - Introduction to Mathematical Oncology
Introduction into cancer biology and basic mathematical approaches to simulate cancer dynamics on the subcellular, cellular, and tissue level. Techniques for quantitative modeling are plentiful, and an increasing number of theoretical approaches are successfully applied to cancer biology. Differential equation models and individual-based cell models paved the way into quantitative cancer biology about two decades ago. Herein we will give an introduction on how such models are derived and how they can be utilized to simulate tumor growth and treatment response. We will then discuss a number of different models and discuss their confirmative and predictive power for cancer biology.
Prerequisite: MATH 22 and MATH 24, MATH 23, one of COSC 1, COSC 10, ENGS 20 or equivalent experience.
Distributive: Dist:QDS

MATH 50 - Introduction to Linear Models
Instructor: Levien
This course provides an introduction to the most common model used in statistical data analysis. Simple linear regression, multiple regression, and analysis of variance are covered, as well as statistical model-building strategies. Regression diagnostics, analysis of complex data sets and scientific writing skills are emphasized. Methods are illustrated with data sets drawn from the health, biological, and social sciences. Computations require the use of a statistical software package such as STATA. Offered in alternate years.
Prerequisite: MATH 10, another elementary statistics course, or permission of the instructor.
Distributive: TAS

MATH 53 - Partial Differential Equations
Instructor: Lee
Partial differential equations play critical roles in wide areas of mathematics, science, and engineering. This is an introductory course, accessible to undergraduate and graduate students in mathematics and other scientific disciplines who have completed the prerequisites. Examples will come from both linear and non-linear partial differential equations, including the wave equation, diffusion, boundary value problems, conservation laws, and the Monge-Ampere equations. Offered in alternate years.
Prerequisite: MATH 22 and MATH 23, or permission of the instructor.
Distributive: Dist:QDS

MATH 54 - Topology I
This course begins with the definitions of topological space, open sets, closed sets, neighborhoods, bases and subbases, closure operator, continuous functions, and homeomorphisms. The course will study constructions of spaces including subspaces, product spaces, and quotient spaces. Special categories of spaces and their interrelations will be covered, including the categories defined by the various separation axioms, first and second countable spaces, compact spaces, and connected spaces. Subspaces of Euclidean and general metric spaces will be among the examples studied in some detail.
Prerequisite: MATH 13 and MATH 22.
Distributive: QDS

MATH 56 - Computational Methods
Instructor: Zhou
This course introduces computational algorithms solving problems from a variety of scientific disciplines. Mathematical models describing a phenomenon of interest are typically too complex to construct analytical solutions, leading us to numerical methods. Motivated by models from physics, biology, and medicine, students will develop numerical algorithms and mathematically analyze their accuracy, efficiency, and convergence properties. The course will provide external coding resources as students will implement algorithms in MATLAB. Sample topics include matrix decompositions, inverse problems, optimization, data fitting, and differential equations.
Prerequisite: MATH 22 or MATH 24, COSC 1 or ENGS 20, or permission of the instructor.
Distributive: Dist:QDS

MATH 60 - Probability (Honors Section of MATH 20)
Instructor: Fu
This course is a more theoretical introduction to probability theory than MATH 20. In addition to the basic content of MATH 20, the course will include other topics such as continuous probability distributions and their applications. Offered in alternate years.
Prerequisite: MATH 13, or permission of the instructor.
Distributive: QDS

MATH 63 - Real Analysis
Instructor: Trout
This course introduces the basic concepts of real-variable theory. Topics include real numbers and cardinality of sets, sequences and series of real numbers, metric spaces, continuous functions, integration theory, sequences and series of functions, and polynomial approximation. Students may not take both MATH 35 and 63 for credit.
Prerequisite: MATH 22 or MATH 24, or MATH 13 and permission of the instructor.

Distributive: QDS

**MATH 66 - Mathematical Topics in Modern Physics**

Instructor: Trout

This introductory course presents mathematical topics that are relevant to issues in modern physics. It is mainly designed for two audiences: mathematics majors who would like to see modern physics and the historical motivations for theory in their coursework, and physics majors who want to learn mathematics beyond linear algebra and calculus. Possible topics include (but are not limited to) introductory Hilbert space theory, quantum logics, quantum computing, symplectic geometry, Einstein's theory of special relativity, Lie groups in quantum field theory, etc. No background in physics is assumed. Offered in alternate years.

Prerequisite: Math 23 and MATH 24 (or MATH 22 with permission of the instructor).

Distributive: QDS

**MATH 68 - Algebraic Combinatorics**

Instructor: Lafreniere

This course covers the use of abstract algebra in studying the existence, construction, enumeration, and classification of combinatorial structures. The theory of enumeration, including both Polya Theory and the Incidence Algebra, and culminating in a study of algebras of generating functions, will be a central theme in the course. Other topics that may be included if time permits are the construction of block designs, error-correcting codes, lattice theory, the combinatorial theory of the symmetric group, and incidence matrices of combinatorial structures. Offered in alternate years.

Prerequisite: MATH 28 and MATH 31, or MATH 71, or permission of the instructor.

Distributive: QDS

**MATH 69 - Logic (Honors Section of MATH 39)**

This course begins with a study of relational systems as they occur in mathematics. First-order languages suitable for formalizing such systems are treated in detail, and several important theorems about such languages, including the compactness and Lowenheim-Skolem theorems, are studied. The implications of these theorems for the mathematical theories being formulated are assessed. Emphasis is placed on those problems relating to first-order languages that are of fundamental interest in logic. Offered in alternate years.

Prerequisite: experience with mathematical structures and proofs, as offered by such courses as MATH 71, MATH 54, or MATH 24; or permission of the instructor.

Distributive: QDS

**MATH 70 - Elements of Multivariate Statistics & Statistical Learning**

Instructor: Demidenko

This course focuses on modern methods of statistical analysis including nonlinear models, data mining, and classification. Students gain a theoretical basis for multivariate statistical analysis, optimal statistical hypothesis testing, and point and interval estimation. The course is grounded in applications and students will gain experience in solving problems in data analysis. Students are required to use the statistical package R.

Prerequisite: MATH 40

Distributive: Dist:QDS

**MATH 71 - Algebra**

Instructor: Auel

The sequence MATH 71 and 81 is intended as an introduction to abstract algebra. MATH 71 develops basic theorems on groups, rings, fields, and vector spaces.

Prerequisite: MATH 22 or MATH 24.

Distributive: QDS

**MATH 72 - Topics in Geometry**

Instructor: Chernov

This course develops one or more topics in geometry. Possible topics include hyperbolic geometry; Riemannian geometry; the geometry of special and general relativity; Lie groups and algebras; algebraic geometry; projective geometry. Offered in alternate years.

Prerequisite: MATH 71, or permission of the instructor. Depending on the specific topics covered, MATH 31 may not be an acceptable prerequisite; however, in consultation with the instructor, MATH 31 together with some outside reading should be adequate preparation for the course.

Distributive: QDS

**MATH 72.01 - Calculus on Manifolds**

Instructor: Sutton

Manifolds provide mathematicians and other scientists with a way of grappling with the concept of “space” (from a global viewpoint). The space occupied by an object. The space that we inhabit. The space of solutions to a system of equations. Or, perhaps, the space of configurations of a mechanical system. While manifolds are central to the study of geometry and topology, they also provide an appropriate framework in which to explore aspects of mathematical physics, dynamics, control theory, medical imaging, and robotics, to name just a few. This course will demonstrate how ideas from calculus can be generalized to manifolds, providing a new perspective and toolkit with
which to explore problems where “space” plays a fundamental role.

Distributive: Dist:QDS

**MATH 72.02 - Lie Groups: An Introduction Via Matrix Groups**

Created by Sophus Lie (1842-1899) with the intent of developing a “Galois theory” of differential equations, Lie groups are a mathematically rigorous realization of our intuitive notion of “continuous transformation groups” and play a fundamental role in the study of geometry and physics.

Formally, a Lie group is a group $G$ equipped with the structure of a smooth manifold with respect to which the group operations (i.e., multiplication and inversion) are smooth. Our exploration of Lie groups will begin with the study of “matrix groups” (e.g., $SO(n)$, $SU(n)$, $Sp(n)$ and $SL_n(R)$). By focusing on this concrete class of examples, we will build our intuition and encounter many of the interesting themes that arise in the general theory of Lie groups.

Distributive: Dist:QDS

**MATH 73 - Metric Spaces and Measure Theory**

Instructor: van Wyk

This course reviews the basic theory of metric spaces and their topology including continuity, completeness, connectedness, and compactness. An introduction to abstract measure theory follows, with topics including measurability, measures, integration, the construction of Lebesgue measure, as well as additional topics as time allows.

Prerequisite: MATH 43 and MATH 63 or a basic course in real analysis and an undergraduate complex analysis course or permission of the instructor.

Distributive: Dist:QDS

**MATH 74 - Algebraic Topology**

Instructor: van Erp

This course provides a foundation in algebraic topology, including both homotopy theory and homology theory. Topics may include: the fundamental group, covering spaces, calculation of the fundamental group, singular homology theory, Eilenberg-Steenrod axioms, Mayer-Vietoris sequence, computations, applications to fixed points and vector fields.

Prerequisite: MATH 31/ MATH 71 and MATH 54 and permission of the instructor or MATH 54 and MATH 101.

Distributive: Dist:QDS

**MATH 75 - Applied Topics in Number Theory and Algebra**

Instructor: Auel

Provides some applications of number theory and algebra. Specific topics will vary; two possibilities are cryptology and coding theory. The former allows for secure communication and authentication on the Internet, while the latter allows for efficient and error-free electronic communication over noisy channels. Students may take Math 75 for credit more than once. Offered in alternate years.

Prerequisite: Math 71, or Math 25 and 31, or instructor permission

Distributive: QDS

**MATH 75.01 - Applied Topics in Number Theory and Algebra**

Instructor: Wallace (Winter), Li (Spring)

Provides some applications of number theory and algebra. Specific topics will vary; two possibilities are cryptology and coding theory. The former allows for secure communication and authentication on the Internet, while the latter allows for efficient and error-free electronic communication over noisy channels. Students may take Math 75 for credit more than once. Offered in alternate years.

Prerequisite: MATH 25 or MATH 22/ MATH 24 or MATH 31/ MATH 71, or permission of the instructor.

Distributive: QDS

**MATH 76 - Topics in Applied Mathematics**

The numerical nature of twenty-first century society means that applied mathematics is everywhere: animation studios, search engines, hedge funds and derivatives markets, and drug design. Students will gain an in-depth introduction to an advanced topic in applied mathematics. Possible subjects include digital signal and image processing, quantum chaos, computational biology, cryptography, coding theory, waves in nature, inverse problems, information theory, stochastic processes, machine learning, and mathematical finance.

Distributive: QDS

**MATH 76.01 - Topics in Applied Mathematics**

Instructor: Wallace (Winter), Li (Spring)

The numerical nature of twenty-first century society means that applied mathematics is everywhere: animation studios, search engines, hedge funds and derivatives markets, and drug design. Students will gain an in-depth introduction to an advanced topic in applied mathematics. Possible subjects include digital signal and image processing, quantum chaos, computational biology, cryptography, coding theory, waves in nature, inverse problems,
information theory, stochastic processes, machine learning, and mathematical finance.

Prerequisite: MATH 22, MATH 23, or permission of the instructor.

Distributive: QDS

MATH 81 - Abstract Algebra
Instructor: Petok

This course provides a foundation in core areas in the theory of rings and fields. Specifically, it provides an introduction to commutative ring theory with a particular emphasis on polynomial rings and their applications to unique factorization and to finite and algebraic extensions of fields. The study of fields continues with an introduction to Galois Theory, including the fundamental theorem of Galois Theory and numerous applications.

Prerequisite: MATH 71. In general, MATH 31 is not an acceptable prerequisite; however, in consultation with the instructor, MATH 31 together with some outside reading should be adequate preparation for the course.

Cross-Listed as: MATH 111

Distributive: QDS

MATH 86 - Mathematical Finance I
Instructor: van Erp

Financial derivatives can be thought of as insurance against uncertain future financial events. This course will take a mathematically rigorous approach to understanding the Black-Scholes-Merton model and its applications to pricing financial derivatives and risk management. Topics may include: arbitrage-free pricing, binomial tree models, Ito calculus, the Black-Scholes analysis, Monte Carlo simulation, pricing of equities options, and hedging.

Prerequisite: MATH 20 and MATH 40, or MATH 60; MATH 23; and COSC 1 or the equivalent.

Distributive: QDS

MATH 87 - Reading Course

Advanced undergraduates occasionally arrange with a faculty member a reading course in a subject not occurring in the regularly scheduled curriculum.

MATH 89 - Seminar in Logic

A study of selected topics in logic, such as model theory, set theory, recursive function theory, or undecidability and incompleteness. Offered in alternate years.

Prerequisite: MATH 39 or MATH 69.

Distributive: QDS

MATH 97 - Undergraduate Research

Open only to students who are officially registered in the Honors Program. Permission of the adviser to majors and thesis adviser required. This course does not serve for major credit nor for distributive credit, and may be taken at most twice.

Medieval and Renaissance Studies

Steering Committee: J. L. Carroll (Art History); N. Cirnigliaro (Spanish and Portuguese); M. C. Gaposchkin (History); T. Luxon (English); C. H. MacEvnitt (Religion); M. Otter (English and Comparative Literature); A. K. Reinhart (Religion); W. P. Simons (History); C. Quaintance (French and Italian); A. Tarnowski (French and Italian); M. Warren (Comparative Literature).

Medieval and Renaissance Studies offers students the ability to modify their majors with a broad array of courses concerning societies and cultures that developed and flourished from late antiquity to early modernity. While centered on Europe, the concentration also embraces developments in related cultures, especially, but not only, those of the Mediterranean. This interdisciplinary course of study provides students with the opportunity to examine the period from a variety of interconnected perspectives. The Medieval and Renaissance Studies concentration is coordinated through the Leslie Center for the Humanities.

Modification

Students who choose to modify their majors with Medieval and Renaissance Studies are required to take four Medieval and Renaissance Studies courses in at least two departments and/or programs (not including the department or program of the student’s major). A list of Medieval and Renaissance Studies courses is available at www.dartmouth.edu/~medren/courses. Cross-listed courses may be taken for Medieval and Renaissance Studies credit, even if the student is majoring in one of the departments or programs offering the course. Although courses used to fulfill the requirements for a Medieval and Renaissance Studies modification cannot count toward a major, students are strongly advised to take Medieval and Renaissance Studies courses, when possible, within their majors. Students are also strongly advised to enroll in language courses appropriate to their field of study.

Students who wish to modify their majors with Medieval and Renaissance Studies must sign up for it no later than the third term prior to their graduation. Courses counting toward the modification will be chosen in consultation with a member of the Medieval and Renaissance Studies faculty. These courses, along with a short description of the student’s reasons for modification, must be approved by a member of the Steering Committee.
Middle Eastern Studies
Chair: Christopher MacEvitt

Professors T. El-Ariss, L. H. Glinert; Associate Professors H. N. Kadhim, J. Smolin; Assistant Professor E. S. Morsi; Senior Lecturers N. Ben Yehuda, J. Chahboun, E. C. Fishere, M. Ouajjani; Lecturers M. Bouba, A. Simon; Visiting Professors H. Barakat

Middle eastern studies MAJOR

- Two language courses at the intermediate level: Arabic 22-23 or Hebrew 21-22 or approved language at equivalent level (e.g. Greek 20).

- Introduction to Middle Eastern Studies Seminar (MES 1)

- Two Core Courses (from MES 2, 3, 4, 5, 6, 8, or 9). Examples include:
  - MES 2.01: The Making of the Modern Middle East
  - MES 4.01: Energy and Society in the Middle East
  - MES 5.01: Identity and Representation in the Middle East
  - MES 8.01: Introduction to Middle Eastern Politics

- Four Electives from MES owned or cross-listed courses. Students may construct their disciplinary focus through these courses.

- One Culminating Experience (a course at the MES 80-level (i.e. 81 or 85)); substitutes may be approved by the Chair.

- Total = Ten Courses

All majors must have at least one course in: humanities, history or politics, pre-modern period, and modern period

HONORS program

Standard major requirements with a minimum GPA of 3.25 and the following additional requirements:

- Two advanced language courses beyond Arabic 23 or Hebrew 23.

- Senior Thesis:

- MES 88, Senior Honors Thesis part 1, and MES 89, Senior Honors Thesis part 2. These two courses (taken in winter and spring) will be coordinated with a faculty advisor. The Honors proposal is due by the 5th week of the preceding fall term.

Middle eastern studies MINOR

The minor will consist of six courses. Students are required to take the Introduction to the Middle East Seminar (MES 1) and two core courses.

Only language courses beyond the first-year sequence may count for the minor. A maximum of three language courses may count for the minor.

HEBR - Hebrew Courses

To view Hebrew requirements, click here.

HEBR 1 - First-Year Courses in Modern Hebrew
Instructor: Ben Yehuda

An introduction to spoken and written Modern Israeli Hebrew (MIH). In addition to mastering the basics of grammar, emphasis is placed on active functional communication in the language, reading comprehension, and listening comprehension. Mandatory student-run drill sessions meet four times/week for one hour (4 hours/week) for all beginning Hebrew language classes.

HEBR 2 - First-Year Courses in Modern Hebrew
Instructor: Ben Yehuda

An introduction to spoken and written Modern Israeli Hebrew (MIH). In addition to mastering the basics of grammar, emphasis is placed on active functional communication in the language, reading comprehension, and listening comprehension. Mandatory student-run drill sessions meet four times/week for one hour (4 hours/week) for all beginning Hebrew language classes.

HEBR 3 - First-Year Courses in Modern Hebrew
Instructor: Ben Yehuda

An introduction to spoken and written Modern Israeli Hebrew (MIH). In addition to mastering the basics of grammar, emphasis is placed on active functional communication in the language, reading comprehension, and listening comprehension. Mandatory student-run drill
sessions meet four times/week for one hour (4 hours/week) for all beginning Hebrew language classes.

**HEBR 21 - Intermediate Modern Hebrew**
Instructor: Ben Yehuda

Continued study of Modern Israeli Hebrew grammar and syntax. Emphasis is placed on acquisition of the spoken language and on listening and reading comprehension. The course includes selected readings from contemporary Hebrew authors.

Prerequisite: HEBR 3 or permission of instructor.
Distributive: Dist:LIT; WCult:NW

**HEBR 22 - Intermediate Modern Hebrew**
Instructor: Ben Yehuda

Continued study of Modern Israeli Hebrew grammar and syntax. Emphasis is placed on acquisition of the spoken language and on listening and reading comprehension. The course includes selected readings from contemporary Hebrew authors.

Prerequisite: HEBR 3 or permission of instructor.
Distributive: Dist:LIT; WCult:NW

**HEBR 51 - The Hebrew of the Bible**
Instructor: Ben Yehuda

An introduction to the language of the Hebrew Bible. The course teaches basic Biblical grammar, script, and vocabulary for recognition. Readings will be taken from a sampling of Biblical texts. This course serves as a requirement for students wishing to major and minor in Hebrew language and literature.

Cross-Listed as: JWST 24.01
Distributive: Dist:LIT; WCult:NW

**HEBR 59 - Independent Advanced Study in Hebrew Language and Literature**

Available to students who wish to do advanced or independent study in Hebrew. The student must first submit a proposal to the Major/Minor advisor, and the section faculty, before obtaining permission from the faculty member with whom he or she wishes to work.

Distributive: Dist:LIT; WCult:NW

**ARAB - Arabic**

**ARAB 1 - First-Year Courses in Arabic**
Instructor: Chahboun, Ouajjani

An introduction to written and spoken Modern Standard Arabic (MSA). In addition to mastering the basics of grammar, emphasis is placed on active functional communication in the language, reading comprehension, and listening comprehension. Mandatory apprentice-teacher-run drill sessions meet four times/week (4 hours/week) for all beginning Arabic language classes.

Never serves in partial satisfaction of Distributive or World Culture requirements.

**ARAB 1.01 - Intensive Beginning Arabic**

Arabic 1-2 is a combined course of elementary to intermediate beginner Arabic that is built on the fundamentals experiential and skill-based learning. The focus of this course falls exclusively on Modern Standard Arabic- العربية requenable (MSA) -- the standard language for reading, writing, and all formal speech in the media and school instruction. It is the basic foundation for any serious engagement with the Middle East and North Africa. We focus on the progressive development of the four skills: speaking, reading, listening and writing. We start with the beginning level designed as a basic introduction to the Arabic language, where students learn vocabulary, basic grammatical structures, and effective participation in daily life interactions, to a beginner’s intermediate level that aims at building students’ skills in understanding written texts, oral and audio-visual materials on a wide variety of topics while continuing to strengthen their proficiency skills in Arabic. This first course is part of an intensive version of ARAB 001 and 002 combined in one term where students will be required to enroll in both courses.

**ARAB 1.20 - Intensive Arabic**
Instructor: Bouba

ARAB 1.2 is an intensive course that combines elementary and intermediate beginner Arabic (ARAB 1 and 2). Students who take this course can go on to take ARAB 3. This intensive Arabic course is built on the fundamentals of experiential and skill-based learning. The focus of this course falls exclusively on Modern Standard Arabic- العربية requenable (MSA) -- the standard language for reading, writing, and all formal speech in the media and school instruction. It is the basic foundation for any serious engagement with the Middle East and North Africa. We focus on the progressive development of the four skills: speaking, reading, listening and writing.

**ARAB 2 - First-Year Courses in Arabic**
Instructor: Chahboun, Ouajjani

An introduction to written and spoken Modern Standard Arabic (MSA). In addition to mastering the basics of grammar, emphasis is placed on active functional communication in the language, reading comprehension, and listening comprehension. Mandatory apprentice-teacher-run drill sessions meet four times/week (4 hours/week) for all beginning Arabic language classes.
I. MAJORS AND THE MINOR OPEN TO THE CLASSES OF 2023 AND EARLIER

Never serves in partial satisfaction of Distributive or World Culture requirements.

**ARAB 2.01 - Intensive Beginning Arabic**

*Arabic 1-2 is a combined course of elementary to intermediate beginner Arabic that is built on the fundamentals experiential and skill-based learning. The focus of this course falls exclusively on Modern Standard Arabic* - العربية الفصاةلفصاقى (MSA) -- the standard language for reading, writing, and all formal speech in the media and school instruction. It is the basic foundation for any serious engagement with the Middle East and North Africa. We focus on the progressive development of the four skills: speaking, reading, listening and writing. We start with the beginning level designed as a basic introduction to the Arabic language, where students learn vocabulary, basic grammatical structures, and effective participation in daily life interactions, to a beginner’s intermediate level that aims at building students’ skills in understanding written texts, oral and audio-visual materials on a wide variety of topics while continuing to strengthen their proficiency skills in Arabic. This second course is part of an intensive version of ARAB 001 and 002 combined in one term where students will be required to enroll in both courses.

**ARAB 3 - First-Year Courses in Arabic**

Instructor: Chahboun, Ouajjani

An introduction to written and spoken Modern Standard Arabic (MSA). In addition to mastering the basics of grammar, emphasis is placed on active functional communication in the language, reading comprehension, and listening comprehension. Mandatory apprentice-teacher-run drill sessions meet four times/week (4 hours/week) for all beginning Arabic language classes.

Never serves in partial satisfaction of Distributive or World Culture requirements.

**ARAB 21 - Intermediate Arabic**

Intermediate level of Modern Standard Arabic (MSA). Continuation of presentation of fundamentals of grammar and development of proficiency in reading, writing, spoken communication skills, and aural comprehension, including much authentic cultural material.

**ARAB 22 - Intermediate Arabic**

Instructor: Ouajjani/Chahboun

Intermediate level of Modern Standard Arabic (MSA). Continuation of presentation of fundamentals of grammar and development of proficiency in reading, writing, spoken communication skills, and aural comprehension, including much authentic cultural material.

**ARAB 23 - Intermediate Arabic**

Instructor: Ouajjani/Chahboun

Intermediate level of Modern Standard Arabic (MSA). Continuation of presentation of fundamentals of grammar and development of proficiency in reading, writing, spoken communication skills, and aural comprehension, including much authentic cultural material.

**ARAB 25 - Moroccan Arabic**

Instructor: Chahboun

This course will introduce students to the colloquial language spoken today in Morocco. In addition to emphasizing grammar and vocabulary, this course will focus on daily communication and teach students how to interact with Moroccans in a wide variety of settings. Attention will also be paid to the role of culture in communication. ARAB 25 is a prerequisite for the LSA+.

**ARAB 31 - Advanced Arabic**

Instructor: Ouajjani

A continuation of the fundamentals of grammar and further acquisition of spoken communication skills, aural comprehension, and proficiency in reading and writing. Students will be expected to master a wide variety of reading materials.

**ARAB 32 - Advanced Arabic**

Instructor: Smolin

A continuation of the fundamentals of grammar and further acquisition of spoken communication skills, aural comprehension, and proficiency in reading and writing. Students will be expected to master a wide variety of reading materials.

Prerequisite: Two out of the following three courses: ARAB 21, ARAB 22, ARAB 23, or permission of the instructor, or the equivalent.

**ARAB 35 - Advanced Arabic**

Instructor: Smolin

A continuation of the fundamentals of grammar and further acquisition of spoken communication skills, aural comprehension, and proficiency in reading and writing. Students will be expected to master a wide variety of reading materials.

Prerequisite: Two out of the following three courses: ARAB 21, ARAB 22, ARAB 23, or permission of the instructor, or the equivalent.
ARAB 33 - Advanced Arabic
Instructor: Ouajjani
A continuation of the fundamentals of grammar and further acquisition of spoken communication skills, aural comprehension, and proficiency in reading and writing. Students will be expected to master a wide variety of reading materials.
Distributive: Dist:LIT; WCult:NW

ARAB 34 - Media Arabic
Instructor: Chahboun
This course is an introduction to the language of the Arabic press and broadcast media. It offers training in the basic skills required to read, comprehend, and translate Arabic media texts. The course is intended as a supplement to language training based on Modern Standard Arabic (MSA).
Prerequisite: Two second-year level Arabic courses or permission of the instructor.
Distributive: Dist:LIT; WCult:NW

ARAB 41 - Advanced Arabic
Instructor: Kadhim
This three-course series (41, 42 and 43) may be taken non-sequentially. Readings for the courses are extensive and of a high level of complexity; they are drawn from a variety of genres and periods. The progression towards full proficiency in the language is a fundamental objective of the sequence. The courses will be conducted entirely in Arabic.
Prerequisite: Two third-year level Arabic courses, or permission of the instructor.
Distributive: Dist:LIT; WCult:NW

ARAB 42 - Advanced Arabic
Instructor: Kadhim
This three-course series (41, 42 and 43) may be taken non-sequentially. Readings for the courses are extensive and of a high level of complexity; they are drawn from a variety of genres and periods. The progression towards full proficiency in the language is a fundamental objective of the sequence. The courses will be conducted entirely in Arabic.
Prerequisite: Two third-year level Arabic courses, or permission of the instructor.
Distributive: Dist:LIT; WCult:NW

ARAB 43 - Advanced Arabic
Instructor: Kadhim
This three-course series (41, 42 and 43) may be taken non-sequentially. Readings for the courses are extensive and of a high level of complexity; they are drawn from a variety of genres and periods. The progression towards full proficiency in the language is a fundamental objective of the sequence. The courses will be conducted entirely in Arabic.
Prerequisite: Two third-year level Arabic courses, or permission of the instructor.
Distributive: Dist:LIT; WCult:NW

ARAB 59 - Independent Advanced Study in Arabic Language and Literature
Instructor: Staff
Available to students who wish to do advanced or independent study in Arabic. The student must first consult with a faculty member and then obtain departmental permission in the term before the course.
Distributive: Dist:LIT; WCult:NW

MES - Middle Eastern Studies
MES 1.01 - Introduction to Middle Eastern Studies
Instructor: Smolin
This interdisciplinary course offers an introduction to the modern Middle East as a field of study, a region, and a site of cultural and artistic production. Starting with the rise of modernity and the effects of European colonialism on regional politics and culture, we will examine the rise of nationalism, authoritarianism, and fundamentalism. We will analyze recent developments in the region, focusing on social media and youth culture, displacement and exile, and gender and sexuality.
Distributive: Dist:INT or SOC; WCult:NW

MES 2.01 - The Making of the Modern Middle East
Instructor: Simon
This panoramic course surveys major developments in Middle East history, politics, and society. Covering more than a two hundred year stretch, we will move across an expansive geography encompassing North Africa, the Levant, the Arabian Peninsula, and parts of Central Asia. Throughout this journey, particular attention will be paid to five important themes: imperialism, modernization, nationalism, Islam, and revolution. In the process of navigating these seminal topics, we will develop a more nuanced understanding of the modern Middle East and a greater appreciation for the insights offered by primary sources, from poems and national speeches to songs and motion-pictures, into the region’s dynamic past. We will begin with a basic question – what and where is the Middle East? – prior to exploring the impact, importance, and mechanics of empires (Ottoman, French, British). Once
elucidating this imperial backdrop, we will study sweeping reforms, struggles for independence, and the fashioning of nation-states, before examining a series of revolutionary moments, America’s presence in the Middle East, and the “Arab Spring” and its aftermath. Whenever possible, we will strive to illuminate ordinary people, as opposed to only elite actors, who contributed to the making of the modern Middle East.

Cross-Listed as: HIST 90.04 JWST 44
Distributive: Dist:INT or SOC; WCult:NW

MES 2.02 - Introduction to the History of the Islamic Middle East
Instructor: Nikpour
This course is a survey of the histories and cultures of the Islamic Middle East, starting in the era before the advent of Islam in the 7th century until the eve of the 20th century. This class will begin with the regional and global contexts in which Islam emerged, examining the history of the Prophet Muhammad, the Qur’anic revelation, and the first community of believers. We will then look at the expansion of the “abode of Islam” over the course of several centuries, asking why so many people in so many different regions converted to Islam. We will also study philosophical, cultural, legal, political, and social trends in region now known as the Middle East and North Africa until the era of early European colonialism.

Cross-Listed as: HIST 05.02
Distributive: Dist:INT or SOC; WCult:NW

MES 2.03 - Introduction to the Modern Middle East and North Africa
Instructor: Nikpour
The diverse nations and peoples that make up the Middle East and North Africa are of major significance in our contemporary world, at the same time that they are often misunderstood or given only superficial (albeit spectacular) popular attention. This lecture course is designed to give students a nuanced introductory overview of the modern histories of this region. Students will read a variety of primary and secondary materials designed to familiarize them with the historical, cultural, and social processes that have affected and transformed the region in question, and will learn to put these regional histories in a global framework. The course begins with a brief summary of the early modern Islamicate “Gunpowder” Empires—Mughal, Safavid/Qajar, Ottoman—and then moves through several topics of significance: the era of European colonialism; the establishment of the nation state; competing discourses of nationalism; the emergence of Third Worldist and anti-colonial movements; the Israeli-Palestinian conflict; debates over the politics of gender; the effects of the Cold War; the processes of decolonization and the establishment of post-colonial states; the rise of revolutionary Islamism; oil politics and policies; globalization and neoliberalism; 9/11, terrorism, and wars in Iraq and Afghanistan; the Arab uprisings of 2010-2011; and the region’s uncertain present and future.

Cross-Listed as: HIST 04.03
Distributive: Dist:SOC; WCult:NW

MES 3.02 - Archaeology of the Middle East
Instructor: Casana
This course provides an introduction to the civilizations of the ancient Middle East and to the history of archaeological research in this important region. Encompassing the modern nations of Iraq, Iran, Syria, Turkey, Jordan, Lebanon and Israel/Palestine, the Near East saw the emergence of the world’s first villages, cities, and empires, and is therefore central to our understanding of human history. Following an overview of its geography, this course offers a survey of Middle Eastern cultural development, art, and archaeology from the earliest evidence of human settlement around 13,000 BC to the conquest of the region by Alexander the Great. This course is not open to students who have received credit for ANTH 12.02 - Archaeology of the Ancient Near East

Cross-Listed as: ANTH 039
Distributive: Dist:SOC; WCult:NW

MES 4.01 - Energy and Society in the Middle East and North Africa
Instructor: Elias and Vandewalle
This course focuses on the economic, political, social and cultural consequences of rapid development in the hydrocarbon states of the Middle East and North Africa: states whose development is highly dependent on access to the global economy for income from oil. The course aims to provide students with an understanding—from both a Social Science and a Humanities perspective—of how hydrocarbon-led development has dramatically changed the economic, political, and cultural life of what were previously tribal societies.

Cross-Listed as: AMES 41.20 GOVT 40.23
Distributive: Dist:INT; WCult:NW

MES 4.02 - History of Technology in the Middle East
Instructor: Simon
What may cassette tapes teach us about the creation of Egyptian culture? How may cameras assist us in picturing the past and archiving the present in the Arab world? And what is the relationship between online communities and offline activism in Iran? In this class, we will explore the impact, significance, and social life of numerous technologies throughout Middle East history. We will cover devices we often take for granted as well as things
that command our attention. Cameras, radios, and records, dams, the Internet, and electrical grids, printing presses, clothing, and modes of transportation, will all surface in readings that transcend any single historical genre, bridging the local and the global, the social and the cultural, the intellectual and the environmental. The scope of this course is consciously panoramic in nature. In traversing nearly two hundred years of history, we will examine a wide array of case studies that unfold across the Middle East and occasionally travel further afield.

Distributive: WCult:NW

**MES 5.02 - Introduction to Hebraic and Israeli Culture**

Instructor: Glinert

This course explores the interaction of Hebrew literature, film, music, religion, and society. For millennia, Hebrew has had a unique spiritual hold on both the Jewish and Christian identity. We will focus on the Bible as wisdom, law, and poetry, the Talmud of the ancient Rabbis, Kabbalah and Hebrew alphabet mysticism, war and the Israeli cinema, Hebrew folk and rock culture, and a modern political mystery: how today's Hebrew created a new Jewish identity. Required for the major and minor. No knowledge of Hebrew is required.

Cross-Listed as: JWST 016

**MES 6.02 - An Introduction to Islam**

Instructor: Vignone

This course will provide students with useful tools for reading about, thinking about, or otherwise engaging with Islam and Muslims. It is first a survey of important topics in the study of the religion of Islam, including the Qur'an and the Prophet, the role of Islamic mysticism, Islam and the state, Islamic law, and Islamic theories of family and person. We also discuss Orientalism and the western study of Islam, so that we can understand ourselves as students of the Islamic tradition.

Not open to students who have received credit for REL 8

Cross-Listed as: REL 16.01

Distributive: Dist:TMV; WCult:NW

**MES 7.01 - Arab Revolutions: Dependency, Despotism and the Struggle for Democracy**

Instructor: Fishere

This course explores the long struggle of Arabs to build independent and democratic states. After long cycles of revolutions and repression, the Arab World still suffers from despotism and dependency, and its people still yearn and struggle for freedom and good governance. Why have Arab revolutions failed? Are Arabs condemned to live under tyranny or is there hope for those who seek democratic, accountable governments and rule of law? To answer this question, we will dig into the complex political and cultural realities of the Arab World. We will read about old and new Arab revolutions; from Prince Abdul---Qader’s armed revolt in Algeria (1832---1847); Egypt’s multiple revolutions (1882 and 1919); Lawrence of Arabia’s Arab revolt (1914---1918); the bleak revolution of Palestine (1936), all the way to the Arab Spring of 2011 and its subsequent collapse into civil war and despotism. The readings cover these revolutions and the deep dynamics that shape Arab societies and states. As such, this course introduces students to the politics and culture of one of the most turbulent regions of our world.

Distributive: Dist:INT; WCult:NW

**MES 7.03 - Jerusalem: Vision and Reality**

Instructor: Glinert

Jerusalem has always mesmerized minds -- Royal City of Solomon, mystical core of the world, site of a foretold apocalypse, twice rased to the ground, focus of Jewish messianic dreams, since 1948 once more a Jewish capital but still savagely fought over. In this course, we will sample the symbolism of Jerusalem in Jewish, Christian and Islamic intellectual and artistic expression, from the Bible down to the present. Why has this city evoked such passions?

Distributive: Dist:LIT; WCult:NW

**MES 8.01 - Introduction to Middle East Politics**

Instructor: Fishere

This is a gateway course to the political life of the Middle East. It will introduce students to the main political issues and dynamics of the region, including: We will cover the basic contours and intellectual debates around these issues, analyzing the main texts tracing their development. The aim of this course is not only to familiarize students with the basic political features of the Middle East but also to equip students with the tools necessary to pursue future academic and analytical work on the politics of the region.

Cross-Listed as: GOVT 40.25

Distributive: Dist:INT or SOC; WCult:NW

**MES 9.01 - Islam and Medicine from the Medieval to Modern Eras**

Instructor: Vignone

What was the place of medicine in medieval Islamic societies? How does medicine inform the social, political and sexual experiences of Muslims living in modernity? In this course students will explore primary and secondary sources describing Islamic medical ethics, drug use, dieting, contagion and sexual practice. Students will learn how ideas of religious devotion, class, sexuality, gender and political legitimacy changed in the medieval to postcolonial Middle East while remaining in constant conversation with medicine. Open to all.
Not open to students who have received credit for REL 19.30

Cross-Listed as: REL 19.30
Distributive: Dist:TMV; WCult:NW

MES 10.10 - Soundscapes of the Middle East
Instructor: Simon
In recent years, scholars have started to question the conspicuous “silence” pervading many academic works that privilege one sense – sight – to the detriment of all others. This seminar builds upon these long overdue efforts by critically engaging the writings of historians, anthropologists, ethnomusicologists, and media experts with the aim of uncovering how the study of sound may radically enrich our understanding of the modern Middle East. Beginning with an overview of sound studies, we will consider where multi-sensory scholarship on North Africa, the Levant, and the Gulf fits into this burgeoning field of inquiry. After situating the Middle East within a body of literature that is at once innovative and highly interdisciplinary, we will then shift to exploring several key themes, including religion, popular culture, mass media, gender, space, and the environment, in relation to the region’s soundscapes. We will listen to audiocassette sermons in Egypt, jazz in Istanbul, and the din of warfare in Iraq, among many other acoustic items, to gain a greater appreciation for the centrality of sound in people’s everyday lives and its significance in the domain of Middle Eastern studies.

Cross-Listed as: JWST 45
Distributive: Dist:INT or ART; WCult:NW

MES 12.02 - Modern Iraq: Society, Politics, and Literature
Instructor: Kadhim
Iraq is a pivotal country in the Middle East. Known to history as “the cradle of civilization,” Iraq was also the center of the Islamic world in medieval times. From Baghdad, the present-day capital of Iraq, Abbasid caliphs ruled a vast Muslim empire from the eighth to the thirteenth centuries. The political history of modern Iraq, however, has been characterized by authoritarian rule, communal strife, wars and occupation. In this course, we will examine the politics of Iraq under the British mandate, as an independent state under the monarchy, and as a republic after the coup of 1958. We will also examine the rule of the Baath and of Saddam Hussein as well as the American invasion of Iraq and its aftermath. Drawing on a mixture of texts and media, the course explores the prevalent tropes of Iraqi culture, the ideologies underpinning these tropes and in doing so provides a cultural context for understanding the forces that shaped the modern history of that country.

Distributive: Dist:INT or SOC; WCult:W

MES 12.03 - Egyptian Culture, Society, and Politics
Instructor: Fishere
This seminar will examine the cultural, social, and political life of modern Egypt. One way of examining this complex society is through revisiting Egypt’s struggle with modernity. From Mohamed Ali’s modernization program in the 19th century to the recent chanting for freedom in Tahrir Square, Egypt’s modernity is different and sometimes contradictory. This struggle transformed the political, economic, social and cultural landscape of the country, and continues to be the focal point of its unfolding drama. The spread of modern ideologies (nationalism, liberalism, socialism), the construction of Islamism, the reordering of social hierarchies and family structure, the transformation of norms and values, among other issues, are better understood when read as part of this long, twisted, and tormented march of modernity.

Distributive: Dist:SOC; WCult:W

MES 12.04 - America and the Middle East
Instructor: Fishere
The United States has played a major role in shaping the political, economic and cultural development of the Middle East. Oil, global security, Israel’s survival, and promotion of democracy, all have drawn the US into the complex politics of the Middle East since the 1920s. This course introduces students to various aspects of this role and the reactions it triggered. It covers the role played by American missionaries and travelers/immigrants around the turn of the 20th century. It analyzes the transformative impact of the discovery of oil, the establishment of the state of Israel, the Cold War, Turkey’s integration into NATO and the US attempts to establish a security regime for the Middle East. It also examines how Americans viewed the Middle East and their role in its life. In addition, the course then takes the students in a tour d’horizon of US role in Middle East politics: its involvement in the Arab-Israeli Peace Process, its responses to Radical Islamism and 9/11, the invasion of Iraq and its consequences, the uneasy relationship with a changing Turkey, and its policy of “democracy promotion”. It discusses the doctrines defining US role in the region since Truman until Obama’s “disengagement”. Combining academic books with novels and movies, this course should give students a rounded view of the role and lasting impact of the United States in one of the world’s most turbulent regions.

Cross-Listed as: GOVT 20.08
Distributive: Dist:INT or SOC; WCult:W
MES 12.05 - Arab Political Thought
Instructor: Fishere
This is a gateway course to Arab political thought. It will introduce students to the main political and intellectual debates in the modern Arab world since its nascent beginnings during the first half of the 19th century to the ideologies that animated the Arab Spring and its aftermath, including:

We will cover the basic contours and intellectual debates around these issues, analyzing the main texts tracing their development. The aim of this course is not only to familiarize students with the basic political features of the Middle East but also to equip students with the tools necessary to pursue future academic and analytical work on the politics of the region.

Cross-Listed as: GOVT 60.17
Distributive: Dist:INT or SOC; WCult:NW

MES 12.06 - Dictatorship and Dissent: the Middle East in a Global Context
Instructor: Al-Aswany
Dictatorship is the defining characteristic of some governments, especially in the Arab world. Dictatorship is usually described as a strongman imposing his will on the nation through sheer force. French political philosopher Etienne de La Boétie (1530–1563) in his seminal essay Discours de la servitude volontaire (Discourse on Voluntary Servitude) presented the existence of a dictatorship as a relationship between two parties. Before every dictator is a population that is willing to accept rule by the dictator. The dictator cannot impose his will on a people that shun a dictatorship. Extrapolating from this concept, we can consider dictatorship to be a syndrome. The dictionary defines a syndrome as “a group of signs and symptoms that occur together and characterize a particular abnormality or condition.” In this course, students will examine the condition, signs, symptoms, and cures for the malady of dictatorship.

Cross-Listed as: GOVT 40.24
Distributive: Dist:INT or LIT; WCult:NW

MES 12.07 - The Sociology of International Development
Instructor: Parsa
This course will introduce students to the major sociological perspectives on economic and political development, with emphasis on developing countries. Among the views to be considered are modernization, which assumes that later developing countries will follow paths once traveled by today's advanced countries; and dependency and world system theories, which view the integration of less developed countries into the world market as problematic and, under certain conditions, even disadvantageous. We will test these theories by applying them to specific cases. A major part of the course will focus on the economic ‘miracle’ of East Asian countries, as well as cases that have not been so successful. Other important topics to be studied include the influence of states, markets, and multinational corporations in economic development; the relationship between different modes of development and income distribution; and political development and the prospects for democratization. Open to all classes.

Cross-Listed as: SOCY 022
Distributive: Dist:INT

MES 12.08 - Theories of Democratization and the Case of Iran
Instructor: Parsa
Theories of democratization generally examine the nature of the state, economy, social structure, class, culture and religion. This course will begin with an examination of various theories of democracy and democratization. It will then apply these theories to the specific case of Iran. Despite two major revolutions and two movements, Iran is still facing problems democratizing. The latter part of the course relies on documentary films that contain actual footages of Iran’s nationalist movement in the 1950s and the revolutionary struggles in 1979.

Cross-Listed as: SOCY 49.02
Distributive: Dist:SOC; WCult:NW

MES 12.09 - Politics of Israel and Palestine
Instructor: Avishai
This course explores the century-old conflict as seen from the political structures and changing narratives of Israelis and Palestinians, including the Zionist movement and the responses of the Palestinian Arab community to it; the formation of the Arab national movement as a whole—and within this, the claims of Palestinians before and after the British Mandate; the founding of the state of Israel and the formation of the post-1948 Palestinian national movement; the aftermath of the 1967 war; the start of the Israeli occupation and the latter’s impact on Israeli institutions, economy, and political parties; and the Palestine Liberation Organization and the founding of Hamas. We will explore contemporary political and economic developments in light of the global forces operating on the region, and consider the plausibility of a two-state solution.

Cross-Listed as: GOVT 40.09 JWST 40.01
Distributive: Dist:INT or SOC; WCult:NW

MES 12.12 - Cold War Arab Culture
Instructor: Al-Musawi
This course purports to study the effects and strategies of the cold war on Arab writing, education, arts and translation, and the counter movement in Arab culture to have its own identities. As the cold war functioned and still functions on a global scale, thematic and methodological comparisons are drawn with cultures in Latin America, India and Africa.

Distributive: Dist:INT or SOC; WCult:NW

**MES 12.13 - Modern Iran**

Instructor: Nikpour

This course examines the history of Iran from the early modern to the contemporary period. We will start in the era of the Islamicate empires then move through European imperialism, the rise of modern nationalism, the Constitutional Revolution (1905-1911), the formation of Pahlavi state institutions, the 1953 coup, the 1979 revolutionary movement, the establishment of the Islamic Republic, the Iran-Iraq War, and more. Students will learn to think through Iranian history in domestic and global contexts.

Cross-Listed as: HIST 70.02

Distributive: Dist:SOC; WCult:NW

**MES 15.01 - The Craft of Fiction: A Masterclass with Alaa Al Aswany**

Instructor: Al-Aswany

Fiction presents an abundance of rich and creative possibilities. Through the magic of imagination, fiction takes us deep inside worlds and into the lives of characters. This course trains students to recognize the qualities that make for spellbinding fiction, including the natural rhythm and tone, mapping the structure, and shaping the content.

The Art of Fiction course teaches the essential elements of sketching a story, creating a great opening, devising structure and plot twists, incorporating tension, implementing flashback and viewpoint, and mastering the art of dialogue. Students learn techniques of crafting a story, originating colorful characters, and developing ways of bringing imagination and intrigue into a literary work. They will learn how their stories can be woven into unforgettable narratives by mastering rhythm, tempo, tone, and brevity. Students will explore the process of developing lively characters, mapping out a plot, describing realistic settings, adding subtext and layers of meaning, and penning captivating fiction.

Cross-Listed as: CRWT 40.07

Distributive: Dist:LIT; WCult:NW

**MES 15.08 - The Art of the Novel: A Masterclass with Hoda Barakat**

Instructor: Barakat

Each novel has its own "secret of fabrication." This course introduces students to the processes, techniques, and themes involved in writing the novel. The approach will be personal, engaging author Hoda Barakat’s own experience as a novelist who had to confront in her writing war, exile, tribalism, violence, and love. Each week will focus on a particular set of questions, starting with the idea of the novel and the development of characters, and moving to questions of gender, sexuality, and voice. The course will focus on the fears, obsessions, excitement, and euphoria involved in the writing process, and on the social and political contexts from which works arise or that novels have to critique in today’s world. The students will engage Barakat’s writings and work to develop their own writing by working through their pieces throughout the term. *This course will be taught in Arabic.*

Distributive: Dist:INT or LIT; WCult:NW

**MES 15.09 - Language and Rebellion: Arabic Literature in a Comparative Context**

Instructor: Barakat

This course focuses on rebellion in modern Arabic literature. Rebellion could be a political act (an uprising against a colonial power or an authoritarian regime), a psychological act (rebellion against the father), and an artistic act (rebellion against a system of values and traditions). These realms are interconnected and it’s precisely their intersection that the students will analyze by engaging works by modern Arab authors. Exploring this theme in a comparative context, the students will explore the politics of language, the relation to personal and national identity, and the implications of writing in the language of the other (French, Hebrew, English, etc.). Each week focuses on one Arab author, situating his/her work in the appropriate historical and social context, and doing close readings of his/her work. All books are translated into English.

Cross-Listed as: COLT 51.04

Distributive: Dist:INT or LIT; WCult:NW

**MES 15.10 - Film, Fiction and the Arab-Israeli Conflict**

Instructor: Glinert

This course explores Israeli cinema in the context of the social and historical backdrop of the Arab-Israeli conflict and the painful emergence of a new Jewish-Israeli identity in the shadow of the Holocaust and constant warfare. We will study a dozen films in depth, situate them in the evolution of an Israeli cinema, and consider the problems of turning fiction into film.

Cross-Listed as: JWST 042

Distributive: Dist:LIT; WCult:CI
MES 15.11 - The Middle East in Film: Picturing the Past and Present

How may films serve as a starting point for revisiting the past and rethinking the present? In what ways may representations of the Middle East differ over time and across places? And why do the stories told by filmmakers in documentaries, historical dramas, and other cinematic productions matter? Movies depicting the Middle East routinely draw mass audiences and consequently shape popular perceptions of the region the world over. The very same films, however, are all too often understood by many people as mere entertainment. In this class, we will consider what movies, if treated critically, may teach us about Middle East history. Beginning with a brief introduction to film and media studies, we will contemplate where the Middle East fits into this field of inquiry. Once establishing how we will approach movies and the Middle East throughout the term, we will navigate a number of key themes together, from war, memory, and migration to (mis)information, revolution, and representation. Along the way, we will watch everything from indie films to big budget blockbusters. Regardless of the exact form these projects assume, all of the pictures we explore will generate debate and discussion around the past and present. Among the topics we will cover are the Israeli-Palestinian conflict, European colonialism, and America’s legacy in the Arab world. To assist us on this journey across the Middle East and well beyond its boundaries, we will engage several primary sources, with motion pictures at the forefront. These thought-provoking items will empower us to partake in conversations that traverse languages, national borders, historical eras, and artistic genres, enabling us to view the Middle East in an entirely new way.

Cross-Listed as: FILM 42.19 JWST 44.01
Distributive: Dist:ART; WCult:NW

MES 15.12 - History of the Arabic Language

In this course, we will survey the history of the Arabic language and the current linguistic situation across the Arabic speaking world. We will learn about the foundations of Arabic grammatical and philological tradition, and compare these with modern linguistic perspectives. We will also engage with the ideologies surrounding the multiple dialectal varieties, which serve as both liturgical and administrative languages, as well as languages of thought, conversation, and artistic expression.

Cross-Listed as: LING 11.18
Distributive: Dist:SOC

MES 16.03 - Language Behavior and Verbal Cultures in the Middle East

Instructor: Glinert

This course in anthropology and ethnography of language illustrates how Middle Eastern cultures employ language to construct and reflect values, identities and institutions, to create relationships and project personal status, and to perform actions (such as ending a phone call, apologizing, paying compliments and negotiating business deals). Particular attention will be paid to the language of health and healing. No prior knowledge of a particular language or culture is assumed. Open to all classes.

Cross-Listed as: LING 11.03
Distributive: Dist:INT or SOC; WCult:CI

MES 16.05 - Introduction to Arabic Culture

Instructor: Staff

This course will provide a broad introduction to the historical, literary, artistic, and popular cultures of the Middle East, from pre-and early Islamic times to the present. The aim of the course is to give students an appreciation of Arab and Arabo-Islamic culture, but also to examine ways in which prevailing historical, political, economic, and social conditions have impacted cultural production and expression in the Middle East. Sources and texts will include, but not be limited to, selections from the Quran, hadith, Arabic poetry and literature, historical chronicles, and film. Required for the FSP, major and minor.

Distributive: Dist:LIT; WCult:CI

MES 16.06 - Arab Cultures in the Americas

Instructor: Morsi

Arab Cultures in the Americas aims to introduce students to both: the main sociopolitical issues that affect(ed) the Arab diaspora and the principle literary and cultural trends that emerged from them. This interdisciplinary course will draw on historical, anthropological, literary and cinematic sources to explore such literary trends as the Romanticism of Adab al-Mahjar, as well as such sociopolitical issues as “assimilation”. Since this seminar covers an area that traverses five different linguistic spheres (Arabic, English, Spanish, Portuguese and French) and a time period of almost two centuries, it can neither be exhaustive nor comprehensive. The course will, instead, focus on a select number of countries and specific historical moments primarily in the twentieth century.

Cross-Listed as: ARAB 63.03 COLT 35.03
Distributive: Dist:INT or LIT; WCult:NW

MES 16.07 - The Arabian Nights East and West

Instructor: Kadhim

An introduction to Arabo-Islamic culture through its most accessible and popular exponent, One Thousand and One Nights. The course takes this masterpiece of world literature as the focal point for a multidisciplinary literary
study. It covers the genesis of the text from Indian and Mediterranean antecedents, its Arabic recensions, its reception in the West, and its influence on world literature. The course will be taught in English in its entirety. No prior knowledge of Arab culture, the Middle East or Islam is required.

Cross-Listed as: ARAB 62.02
Distributive: Dist:INT or LIT; WCult:NW

MES 16.08 - Women and War in Modern Arabic Literature and Film
Instructor: Morsi

Women are central figures in the political upheavals of the modern Middle East. Their images have had a remarkable hold on national and international imaginations. This course examines representations of war and everyday life in literature and film produced by Arab women to understand how armed aggression and violence shape gender (and vice versa). Supplemental readings in history, geography and psychology will provide students with the proper contexts to understand the impact of colonialism, imperialism, sectarianism and decolonization on the region.

Cross-Listed as: ARAB 61.10 WGSS 49.06
Distributive: Dist:LIT; WCult:NW

MES 16.10 - Special Topics in Arabic Studies
Instructor: Gilnert

Special Topics in Arabic Studies
Distributive: Dist:LIT; WCult:NW

MES 16.11 - From Genesis to Seinfeld: Jewish Humor and its Roots
Instructor: Gilnert

What is Jewish humor, what are its roots, and what can it begin to tell us about Jewish society, its values and its self-image? Using Freudian and other humor theory, we examine 2000 years of Hebrew comedy and satire, from the Bible to contemporary Israel, in such genres as short stories, jokes, and strip cartoons, and its relationship to American Jewish humor.

Distributive: Dist:LIT; WCult:W

MES 16.12 - Language, Politics and Power in the Middle East
Instructor: Gilnert

This course explores the sociopolitical dimensions of language at the macro level in the Middle East, past and present. How have political, ideological and social forces affected the fate of Arabic, Hebrew, Persian, Turkish, Ancient Greek, and other major regional languages such as Kurdish and Berber? How does language affect and reflect heritage, ethnicity, religion and nationhood, with their linguistic ideologies? What, objectively and subjectively, are "languages" and "dialects"? What are the causes of language conflict or repression? Is 'one state one language' an economically or politically rational policy? How and why might language and literacy be planned and managed? No prior knowledge of a particular language or culture is assumed.

Distributive: Dist:INT or SOC; WCult:CI

MES 16.22 - Arabic as a Cultural System

Examines the historical and cultural factors and forces that have molded and continue to mold colloquial Moroccan Arabic. This course includes an appreciation of the nonverbal aspects-gestures and body language-of communication and identity in the Moroccan setting. It also offers a minimal functional mastery of practical communicative skills-the sound system, basic sentence patterns, and everyday vocabulary of colloquial Moroccan Arabic as well as a knowledge of the Arabic script, a key element of Islamic civilization and identity.

Distributive: WCult:NW

MES 16.23 - Discovering an Islamic City

This course analyzes the historical and contemporary urban life of a traditional Islamic city as seen through the eyes of the town's scholars, planners, educators, writers, and crafts people, as well as scholarly readings that have shaped discussions in anthropology, history, and the history of religions. Fez is the locus of classical discussions of urbanism, public space, and civic life in the Muslim world. Participating in the life of the city, students have an opportunity to experience first hand its educational, economic, religious, kinship, and political institutions.

Distributive: Dist:SOC; WCult:NW

MES 16.24 - Jerusalem: A Cultural History

One of the main points of contention in the Israeli-Palestinian conflict is the status of Jerusalem. For more than 3,000 years, ever since Jerusalem first appeared on the stage of history as a Holy City and the City of the Kingdom, it has been enveloped in political and theological struggles, served as a locus for intense cultural interactions, and loomed large in collective imaginaries across the world.

Cross-Listed as: JWST 40.06
Distributive: Dist:INT; WCult:NW

MES 16.30 - Modern Arabic Fiction
Instructor: Smolin

This course is an introduction to twentieth-century fiction across the Arab world. Looking at works from North Africa to the Middle East, we will examine how Arab
writers and filmmakers have dealt with such themes as nationalism, immigration, freedom, sexuality, war, violence, and religion. Authors include Tayyib Salih, Mohamed Choukri, Ghassan Kanafani, Tahar Wattar, and Hanah al-Shaykh, among others.

Distributive: Dist:LIT; WCult:NW

MES 16.31 - Palestinian Literature and Cinema

This course explores various aspects of Palestinian existence through literature and cinema. What does it mean to be “Palestinian”? What unifies a cultural output produced not only in Arabic, but also in Hebrew and English, by people who carry a variety of citizenships (or none at all)? How have Palestinian authors and filmmakers grappled with issues such as collective identity, the “Other,” and internal social problems? How have these issues influenced their use of literature and film as art forms?

Distributive: Dist:LIT; WCult:NW

MES 16.32 - Themes in Arabic Literature and Culture

Arabic literature is widely regarded as the foremost intellectual and artistic accomplishment of the Arabs. In the course of over fourteen centuries of vigorous literary activity, Arab poets and writers have elaborated a set of themes that inform Arabo-Islamic culture in profound ways. Offerings of this course might range from the examination of a particular theme to broader comparative studies.

Courses numbered 61 - 63 are literature-in-translation courses, and do not require knowledge of the Arabic language. There are no prerequisites and courses are open to students of all classes. They may be repeated for credit if the topic varies.

MES 16.35 - Modern Arabic Literature in Translation: Narrating Tradition, Change and Identity

Instructor: Kadhim

This course is an introduction to the modern Arabic narrative tradition through the close reading of a number of key texts by leading twentieth and twenty-first centuries Arab authors. It takes as its focus a critical examination of representations of identity and change in modern Arabic discourses. Blending lectures and class discussions, the course will also explore the ways in which literary forms and narrative strategies tend to reinforce or contest normative power structures. Examination of motifs, literary styles, and assumptions pertaining to gender, sexuality, and class and socio-religious affiliation will also be undertaken.

The course will further examine the profound ways in which the colonial encounter has impacted (narratives of) identity with a particular emphasis on constructions of the Arab Self in relation to a Western “Other”

Readings for the course will be drawn from the works of Naguib Mahfouz (Egypt), Tayyib Salih (Sudan), Ghassan Kanafani (Palestine), Hanan Al Shaykh (Lebanon), Mohamed Berrada (Morocco), and others. The course will be taught in English.

Cross-Listed as: ARAB 61.07 COLT 53.01

Distributive: Dist:LIT; WCult:NW

MES 16.36 - Rogues, Riddlers, Lovers, Liars: Love and Death in the Mediterranean

Instructor: Elhariry

This course examines the intertwined relationship between the languages and representations of love and death in the Mediterranean, focusing in particular on the Arab world and diaspora in the modern period. It examines cinematic, literary, and philosophical questions about the complex relationships between love and death. It provides students with critical tools in comparison, world and global literature, translation studies, and critical and literary theory. We will study the thematic, structural, and rhetorical constructions of love and death across languages and artistic traditions.

Cross-Listed as: COLT 53.04

Distributive: Dist:LIT; WCult:NW

MES 16.37 - Love in Translation: Poetics of Desire across Cultures

Instructor: Behar

Literary traditions of the Near East possess an extensive corpus of writings that enact and speak of the importance of erotic feelings, accessible to most of us only in translation. But if articulations of love “translate” unspeakable thoughts and desires in the first place, what happens to these articulations when they are re-translated and move across cultures? What’s gained and lost in the process? These translations can be seen as crucibles for cultural encounter and models for self-other relations and gender identity. How have translations challenged (or perpetuated) hegemonic ideas about sexual morality, stylistic propriety, the religious and the profane? How have they been generative in the target literatures and why? We will examine key intersections of love and translation, compare and contrast old and new translations, and become acquainted with key problems in translation theory.

Cross-Listed as: COLT 19.02 JWST 24.06

Distributive: Dist:INT; JWST 24.06

MES 16.38 - Arabic Prison Writing

Instructor: Al-Musawi

This course studies the genealogy of the prison in Arab culture as manifested in memoirs, narratives, and poems.
These cut across a vast temporal and spatial swathe, covering selections from the Quran, Sufi narratives from al-Hallaj oeuvre, poetry by prisoners of war: classical, medieval, and modern. It lays emphasis on modern narratives by women prisoners, political prisoners, and narratives that engage with these issues. Prison writing is studied against other genealogies, especially in the West, to map out the birth of prison, its institutionalization, mechanism, and role.

Distributive: Dist:INT or LIT; WCult:NW

**MES 16.39 - Silence, Exile, and Cunning: Comparing Jewish and African Diasporic Literatures**

Instructor: Caplan

The diasporic subject is by definition a dislocated subject. This dislocation manifests itself not only with respect to space, but also in relationship to history, language, political power, and above all in the psychological relationship that diasporic subjects maintain with themselves. This course will focus on two primary examples of diaspora in the late nineteenth and twentieth centuries, Jews and Africans, to examine the multiplicity of relationships among language, literary structure, as well as gender and sexuality that inform the construction of diasporic literatures. Although this course cannot be comprehensive in its survey of either Jewish or African literatures, it will offer suggestive juxtapositions of the two to emphasize commonalities between their historical and political experience. It will also explore how the once exceptional condition of diaspora increasingly has become representative for more and more people in the world today.

Cross-Listed as: AAAS 65.65 COLT 51.05 JWST 15.01

**MES 17.07 - Radical Islam: Jihadis, Salafis, and Radical Reformists in the 20th and 21st Century**

Many academics, including Muslim academics, assert that Jihadism is “not religious” or “not really Islamic.” Nonetheless, members of these movements see themselves sincerely as the vanguard of the “real” Islam. This course is about how violent reformists fit into the Islamic heritage, and, as importantly, how they fit into global sociological, religious, and political tendencies characteristic of the modern world. Are these movements “Islamic?” are they “modern?” Why are they simply irrelevant to most Muslims?

Cross-Listed as: REL 16.04
Distributive: Dist:TMV; WCult:NW

**MES 17.08 - The Jewish Jesus**

Instructor: Forger

It is certain that Jesus of Nazareth lived in the first century C.E. and that his followers interpreted his life and death as harbingers of a new age. However, recent scholarship has made clear that Jesus was fully embedded in the Judaism of his time: the Jewish diversity of the period and Jewish resistance to the Roman Empire. This course examines the life of Jesus the Jew prior to the early Church’s interpretation of Jesus as Christ; modern Jewish and Islamic views of Jesus, as well as his portrayal in contemporary film and art, will also be explored.

Cross-Listed as: JWST 74.01 REL 57.02
Distributive: Dist:TMV; WCult:W

**MES 17.09 - Modern Islam**

Instructor: Reinhart

In all the attention focused on Islam at present, a newspaper reader could be forgiven for supposing that between Muhammad and Usamah bin Laden, there has been no change in Islam. This course surveys developments in Islamic religious history, thought, and practice since 1800, with special emphasis on topics of current controversy, including the status of women, the nature of government, and the place of Islamic law. Readings will be mostly from primary texts written by contemporary Muslims, both modernists and Islamists. Not open to students who have received credit for REL 16.

Cross-Listed as: AMES 015 REL 016 REL 16.02
Distributive: Dist:TMV; WCult:NW

**MES 17.10 - Topics in the Study of Islam**

This course will focus on a particular topic in Islamic studies, with an emphasis on the most recent research in that field. The topic will vary with each offering, so the course may be taken more than once. Sample topics include: "The Islam of Morocco," "Shi'ism," and "Problems in Popular Islam."

Distributive: Dist:TMV; WCult:NW

**MES 17.14 - Jews and Arabs in Israel-Palestine: Past and Present**

The course will cover more than hundred years of struggle between the Jewish national movement, aka the Zionist movement, and the Arab-Palestinian national movement, through exploration of the belief systems, political and military practices, perceptions of justice, and narratives of both movements and of political and religious factions within each of them.

Cross-Listed as: GOVT 40.18 HIST 94.10 JWST 40.04
Distributive: Dist:TMV; WCult:NW

**MES 17.15 - The Middle East in the United States: Jews and Arabs in American Society**

Instructor: Fishere and Milich

The complex identities of Jews and Arabs alike are affected by religion, culture, language, history, and...
politics, all in their own terms and with the fault lines running both between and within the two communities. Despite their internal and mutual conflicts, the two groups share similar experiences of hostility when trying to integrate into American society with fierce antisemitism and Islamophobia against the backdrop of increasing right-wing ethno-nationalism. Concomitantly, both groups share deep ambivalences about assimilating to American culture vs. retaining discrete cultural identities. If Jews and Arabs play decisive roles in US politics, both as effective actors and as imagined targets of opposition, the United States in turn acted not only as mediator in the international relationship between the two groups; the Israeli-Palestinian conflict, post-9/11 politics, anti-terrorist actions, or the Trump administration’s travel ban on five Muslim-dominated countries have also influenced the relationship between Jewish and Arab communities within the United States. Instead of equating the experiences of Jews and Arabs viz-a-viz America, this course examines the multifaceted encounters in what has to be considered a complex Jewish-Arab-American triangular. The ways in which Jews and Arabs interact in the US, will be as central to the course as examples of hybrid cultural experiences of Arab Jews and artefacts such as the numerous American synagogues built in the style of Moorish architecture. We will examine cultural representations of Jews and Arabs in American literature, movies, documentaries, memoirs, art, popular culture and political analyses with attention to aspects of class, race and gender. Finally, the course will focus on the political expressions of Jewish- and Arab-Americans and their relations to the Middle East, and here in particular to the Israeli-Palestinian conflict.

Cross-Listed as: JWST 66.03
Distributive: Dist:SOC

MES 17.17 - Arab Jewish Culture in the Modern Middle East

Who are the Arab Jews? Is the controversial notion of such a group really that oxymoronic? How do they self-identify, what modes of writing do they establish to represent their experience and how are they represented by others? This course will examine the stories of Jews of Arab descent with particular emphasis on their anomalous place in the cultural production of the Middle East that spanned over a century and a half. We will consider the transformation of Arab Jewish experience in various historical configurations and analyze the various media and literary genres with which this group expresses itself. Discussion will also draw on interdisciplinary scholarship to address questions of memory and self-narration, hybridity and cosmopolitanism, literature and identity politics. Alternative views will be afforded of both Arab and Jewish historiographies, political movements and collective myths. We will read works by Jacqueline Kahanoff, Samir Naqqash, Sami Michael, Shimon Balas, Ronny Somek, and Ronit Matalon and scholarship by Lital Levy, Hannan Hever, Orit Bashkin, and Yehuda Shenav. We will also see and hear films and music created by and about Arab Jews.

Cross-Listed as: JWST 66.04
Distributive: Dist:SOC; WCult:NW

MES 17.18 - Jewish Views of Islam

Instructor: Heschel

This course will examine Jewish views of Islam by reviewing the history of medieval and modern Jewish experience under Muslim rule, Jewish theological understandings of Islam, and modern Jewish historiographical interpretations of Islamic origins within Judaism. We will study Jewish understandings of Islam: the articulated differences between Jewish and Muslim beliefs, particularly in relation to prophecy, revelation, scripture, and messianism; the ways that Islam served as a template for presenting Judaism to modern Christian Europe; the alliance forged between Jewish scholars and their imagined Islam as a polemical tool against Christianity; the rise of Oriental Studies and Religious Studies in Europe and the role played within that field by Jewish scholars; Jewish-authored travelogues to Muslim countries; and individual cases of conversions from Judaism to Islam. We will examine Arab-Jewish intellectual and literary creativity and how Orientalism has shaped other cultural phenomena, specifically early psychoanalytic writings.

Cross-Listed as: JWST 058
Distributive: Dist:TMV; WCult:CI

MES 17.19 - The Arab, the Jew, and the Construction of Modernity

This course uncovers a lost chapter in the history of modernity, engaging the Middle East in a global context both as object of representation and experimentation but also as incubator of new models of community, literary genres, and historical narratives. From Zionism to Baathism, the 20th century has witnessed the implementation of national projects that can be traced to revivalist movements in the 18th and 19th centuries in Europe and the Ottoman Empire, intellectual and poets writing in Paris, Vienna, Alexandria, and Beirut, imagining new national identities and literary canons. These essays, novels, manifestos, films, paintings, and poems had transformative effects on the Middle East, redrawing its political and cultural map, and redefining what it means to be a Jew or an Arab in the modern age. Examining this map requires a historical and literary inquiry based in comparative models of analysis and case studies.

Cross-Listed as: HUM 03.06 JWST 42.11
Distributive: Dist:INT or LIT; WCult:NW
MES 18.01 - Unmaking HIstory: Contemporary Art in the Middle East
Instructor: Elias
This course focuses primarily on the work of contemporary artists who make work in or about the so-called Middle East. It includes recent works by artists from nations as diverse as Algeria, Iran, Israel, Lebanon, Morocco, Syria, Turkey and the UAE. One of the main objectives of the course is to look at art practices that attempt to deepen our understanding of the varied cultures, ethnicities and societies that are found in this part of the world. The geographic focus of the course—mostly the Muslim nations of the Arabian peninsula and North Africa—is not meant to perpetuate the assumptions about this region as a monolithic geopolitical entity, nor to blindly label its production according to existing ethnic, religious or national categories. Against media stereotypes of the region, the artists studied in this course have made work that function as a critical platform for rethinking traditional identity formations and extending the space of cultural encounter across borders (territorial, political, linguistic). In many cases these artists may not be living and working in their country of birth but their ethnicity, religion or citizenship continues to inform both their own sense of identity and the terms of their art practice. Some of the topics to be discussed include: artistic responses to the Arab-Israeli conflict, representations of everyday life in times of war, the movement and obstruction of people, goods and information across borders, the rise of new art markets in the Middle East, the politics of gender and sexuality in the Arab world, and the use of archival documents to rethink the meaning of evidence, truth and testimony.
Cross-Listed as: ARTH 28.09
Distributive: Dist:ART; WCult:W

MES 18.02 - Art on the Move: Renaissance Italy and the Islamic World
During the Renaissance, innovations in art and architecture constantly moved back and forth between Italy and the Islamic world. New design models, styles of ornamentation, and even building methods became part of a shared artistic and architectural language that crossed cultural and geographical boundaries in the Mediterranean. This introductory course will focus on exchanges between Italian centers such as Venice, Florence, and Pisa and the Mamluk Sultanate, the Safavid Empire, and the Ottoman Empire between the fall of Constantinople (1453) and the Battle of Lepanto (1571). We will consider a wide range of case studies, including: the role of the traveling painter and architect in foreign courts; the trade in luxury goods such as textiles and ceramics; common trends in villa and garden culture; and the re-appropriation of objects and monuments. How did such a rich history of cross-cultural contact emerge against a backdrop of military strife, political rivalry, and religious tension? To answer this question, we will explore contemporary theories of artistic mobility, hybridity, and influence. The course will include an excursion to the Isabella Stewart Gardner Museum in Boston, as well as visits to the Rauner Special Collections Library and the Hood Museum of Art.
Cross-Listed as: ARTH 62.71
Distributive: Dist:ART; WCult:NW

MES 18.03 - Islamic Architecture
This course examines the architecture of Islamic cultures from the seventh-century rise of the Umayyad dynasty to the modern centers of Dubai and Doha. By studying the historical contexts within which Islamic architecture developed, we will consider major themes, chronological developments and regional variations in both religious and secular architecture. Additionally, by examining instances of cross-cultural influence, we will explore pivotal interactions between Islamic and non-Islamic architectural traditions.
Cross-Listed as: ARTH 42.01 ARTH 63.22
Distributive: Dist:ART; WCult:NW

MES 19.02 - Muslim Feminism
Instructor: Ayubi
This course introduces students to the diversity of feminist approaches on a transnational scale, by examining the movements, activism, media, literature, and Islamic debates produced in predominantly Muslim countries and beyond. We will interrogate concepts of transnationalism, feminism and modernity in terms of historical developments, theoretical usage, the context of colonialism, Islamic theologies, and the modern Muslim nation states. We will explore similarities and differences in women's experiences and feminist methodologies across global Muslim contexts. Course materials will be made up of several primary sources in translation that deal with intersectional issues such as religious and cultural practices, educational systems, politics, race and racism, socioeconomic class, legal rights for men and women, and marriage and the family.
Cross-Listed as: REL 28.03 WGSS 41.04
Distributive: Dist:INT or SOC; WCult:NW

MES 19.03 - Arab Feminisms
Instructor: Morsi
This course is an introduction to the history of feminism in the Arab world from the 19th century to the present. It examines some of the most important socioeconomic and political issues as well as aesthetic trends that were or continue to be central to feminist activism and cultural production in the region. Throughout the term students will engage with a wide range of primary sources (newspaper articles and op-eds, memoirs, novels, poems, photographs and films) that will help them develop a nuanced and critical understanding of the diverse and dynamic experiences of women in the Arab world.

Cross-Listed as: WGSS 24.01
Distributive: Dist:INT or LIT; WCult:NW

MES 19.04 - Gender and The Modern Middle East and North Africa
Instructor: Nikpour

In this course, we will study histories of the modern Middle East and North Africa and examine the ways that issues relating to gender and sexuality have affected the politics and social worlds of the region over the course of the past several centuries. This course begins with the medieval Islamicate Empires — Mughal, Safavid, and Ottoman — and then moves through the end of empire, the colonial era, the establishment of the nation state, and the emergence of modern cultural, political, and religious movements. In doing so, we will situate the histories and social worlds of the region in a global frame, asking how global political and economic transformations have affected the region. At the same time that we attend closely to these histories, we will also examine the ways in which the category of “woman” has been mobilized in popular and political discourses in the 18th-21th centuries, paying particular attention to how Muslim and Middle Eastern women have been represented in various political discourses, as well as how they have represented themselves. Through close readings of both primary sources (in translation) and secondary literature — including historiographical, theoretical, and literary texts as well as film and music— we will also tackle the questions, controversies, and stereotypes that have animated debates in both scholarly and popular literature on such topics as the veil, feminism, revolution, human rights, LGBT issues, masculinity, and war.

Cross-Listed as: HIST 070; WGSS 24.02
Distributive: Dist:SOC; WCult:NW

MES 19.05 - Gender in Islam
Instructor: “Ayubi

“Is Islam sexist?” “What does Islam really say about women?” This course seeks to dismantle the premises of these questions by asking who speaks for Islam, what makes something Islamic, and how are gender and gender roles constructed in Islamic texts and Muslim thought. We will make critical study of the constructions of gender, femininity, masculinity, sexuality, gender relations, marriage and divorce in classical and modern Islamic texts. In asking how Islamic notions of gender are constructed, we will examine both the roles religious texts have played in shaping Muslim life and how Muslim life in its cultural diversity affects readings of religious texts. We will read works of Muslim thought on gender relations in their historical contexts and in relation to one another. Through in-class discussions, critical reading exercises, and short essay assignments, students will strengthen their literacy on global gender issues, study religio-historical ideas on gender, analyze the role of texts in shaping gender in society, and vice versa.

Distributive: Dist:TMV; WCult:NW

MES 81.01 - Arab Theatre
Instructor: Morsi

This class is a survey of the main trends and themes in Arab theatre from the mid-19th century to contemporary times. Students will be introduced to some of the main playwrights, actors and directors who helped define the art in the Arab world over the last century and a half.

Cross-Listed as: ARAB 81.04 THEA 10.45
Distributive: Dist:ART; WCult:NW

MES 81.02 - The New Arabic Novel
Instructor: Smolin

In this seminar, we will read Arabic novels in translation published across the Middle East during the past decade. How have the authors of these texts grappled with recent transformations in post-9/11 Arab society, such as globalization, terrorism, gender relations, and war? How have old themes—including the clash between tradition and modernity, East-West relations, and the Israeli-Palestinian conflict— become renewed for the contemporary era? We will examine exciting recent novels from Egypt, Saudi Arabia, Iraq, Libya, Lebanon, and Palestine to answer these questions. This course has no prerequisites but familiarity with the history of the Middle East in the twentieth century and trends in contemporary Arabic prose during this period would be helpful.

Distributive: Dist:LIT; WCult:NW

MES 81.03 - Images of the West in the Arabic Novel
Instructor: Fishere

This course analyzes the ways Arabic novelists have constructed the image the “West” and the socio-political function this image has served in Arab society. We will read ten representative works by writers from Egypt, Lebanon, Algeria, Sudan, Palestine, and Iraq. Written over more than half a century, these novels present different—sometimes contradictory—perspectives on the “West.”
Some of these novels are focused primarily on East-West relations while others represent the West in the context of large-scale sociocultural transformations in the Middle East and broader global political dynamics. To anchor our discussion of the topic and to broaden our knowledge of the ways Arabic literature has depicted the “West,” we will also read a variety of critical texts that explore the image of the West in the Arab world.

Distributive: Dist:INT or LIT; WCult:NW

**MES 85 - Independent Research**

Instructor: El-Ariss, staff

Under the direction of members of the faculty, subject to faculty availability. Students should consult with a member of the faculty in the term preceding the term in which the independent work is to be done. A research proposal must be submitted to the Department for approval.

**MES 87 - Honors Thesis**

Open only to AMELL majors who are participating in the Honors Program. See guidelines under 'Honors Program.'

**MES 88 - Senior Honors Thesis part 1**

Instructor: El-Ariss, staff

Students are awarded one course credit for successful completion of this course upon completion of MES 089. Students register for MES 089 and receive a grade of "ON" (ongoing) at the end of the term. Students then register for MES 089 the subsequent term to complete their coursework. A final grade will replace the "ON" upon completion of MES 089.

**MES 89 - Senior Honors Thesis part 2**

Instructor: El-Ariss, staff

Students are awarded one course credit for successful completion of this course. Students who have registered for MES 088 register for MES 089 to complete the coursework. A final grade will replace the "ON" for MES 088 upon completion of this course for a total of 2 credits for MES 088 and MES 089.

**To view Music Undergraduate courses, click here** (p. 531).

**To view Music Graduate requirements, click here.** (p. 753)

**To view Music Graduate courses, click here.** (p. 754)

**Music Major**

The Music major functions on an open course count model. Students craft a curricular plan, in close consultation with a faculty advisor, that draws on three key areas of study: 1) critical engagement with the roots and lineages of multiple music traditions, 2) creative practice with the tools and techniques that structure sounds into forms, and 3) performance via individual instruction and/or ensemble participation. This framework centers student agency, maximizes curricular flexibility, and offers major and minor pathways as vibrant and varied as the students we serve.

**Requirements:**

Students must take MUS 99 (Proseminar) plus ten additional music courses that cover critical engagement, creative practice, and performance.

**Modified Major**

**Requirements:**

Students must take MUS 99 (Proseminar) plus seven additional music courses that cover critical engagement, creative practice, and performance. Modified majors must be approved by the Chair of the Music Department.

**Music Minor**

**Requirements:**

Students must take seven music courses that cover critical engagement, creative practice, and performance.
Honors Program
The Honors thesis requirement (MUS 88) may be fulfilled by any of the following:
1. A written Honors thesis
2. An Honors recital and supporting paper
3. An Honors creative project and supporting paper

A written Honors thesis should demonstrate a high standard of artistic, analytical, and/or research skill. A paper submitted in support of an Honors performance or an Honors creative project should be regarded as the equivalent of a term paper or artistic statement, with an analytical, historical, narrative, or interpretive focus related to the project. The student is responsible for obtaining the department’s Honors guidelines, seeking advisors, and meeting all criteria and deadlines.

To qualify for Honors, the student must have at least a 3.3 grade average in music, in addition to the college G.P.A. requirement.

Foreign Study Program
The Music Foreign Study Program (FSP) provides a unique opportunity for students to combine the study of music abroad with an intensive experience around music performance. Students will be selected by the FSP leader based on an application process. The program is designed to encourage and broaden each student’s interest in the study and creation of music.

Example Major Concentration Pathways
The course plans below approach critical engagement, creative practice, and performance from various hypothetical vantage points. They act not as roadmaps but as idea generators conveying the flexible rigor of the music major.

A Jazz Musician, for example, might pursue:
- MUS 5 – Jazz: Black Creative Music and American Culture
- MUS 12 – Music, Ceremony, Ritual, and Sacred Chant
- MUS 14.02 – Datascapes: Objective and Subjective Cinematic Interpretations of Data
- MUS 18.02 – Hip-Hop in the United States
- MUS 35 – The Jazz Language
- MUS 45.04 – Music and Social Justice
- MUS 45.08 – Cities, Subjects & Sonic Africa
- MUS 50.31, 50.32, 50.33 – Jazz Improvisation
- MUS 58.01, 58.02, 58.03 – Percussion Individual Instruction
- MUS 59.11, 59.12, 59.13 – Coast Jazz Orchestra
- MUS 99 Proseminar

A DJ might pursue:
- MUS 3.02 – American Music: Covers, Theft, and Musical Borrowing
- MUS 16.02 – Music and Media in Everyday Life
- MUS 18.01 – Pop Music: Past, Present, Future
- MUS 25 – Sonic Arts I: Machine Music
- MUS 26 – Sonic Arts II: Sound Is Alive
- MUS 28 – Sonic Space and Form
- MUS 35 – The Jazz Language
- MUS 36 – Songwriting I
- MUS 46 – Video Games and the Meaning of Life
- MUS 59.31, 59.32, 59.33 – Dartmouth College Gospel Choir
- MUS 99 – Proseminar

A Classical Instrumentalist might pursue:
- MUS 11 – Introduction to Opera
- MUS 20 – Creative Music Theory
- MUS 22 – Harmony and Rhythm
- MUS 23 – Timbre and Form
- MUS 32 – Improvisation
- MUS 42 – From Plato to Mozart (Early Classical Music)
- MUS 43 – From Beethoven to Now (Modern Classical Music)
- MUS 45.03 – The Music of Central Asia
- MUS 54.01, 54.02, 54.03 – Flute Individual Instruction
- MUS 59.51, 59.52, 59.53 – Dartmouth Symphony Orchestra
- MUS 99 – Proseminar

A Singer/Songwriter might pursue:
- MUS 2 – The Music of Today
- MUS 27.01 – Emerging Musical Theater
A Technologist/Sound Engineer might pursue:

- MUS 1 – Beginning Music Theory
- MUS 8 – Programming for Interactive Audio-Visual Art
- MUS 14.01 – Music, Mind, Invention
- MUS 16.02 – Music and Media in Everyday Life
- MUS 28 – Sonic Space and Form
- MUS 30.02 – Film Scoring
- MUS 30.03 – Movie Musical Lab
- MUS 34 – Sound Art Practice
- MUS 45.11 – The Power of Music
- MUS 59.21, 59.22, 59.23 – Glee Club
- MUS 99 – Proseminar

A Writer/Scholar/Journalist might pursue:

- MUS 4 – Global Sounds
- MUS 17.06 – The Language-Music Connection
- MUS 18.02 – Hip-Hop in the United States
- MUS 21 – Melody and Rhythm
- MUS 25 – Sonic Arts I: Machine Music
- MUS 38 – Noise: Exploring Liberation in Sound
- MUS 40.06 – Sounds of Totalitarianism and Resistance
- MUS 70 (FSP LONDON) – Perspectives in Music Performance
- MUS 71 (FSP LONDON) – The History of Music in England
- MUS 87 (FSP LONDON) – Special Studies in Music Abroad: Piano Individual Instruction
- MUS 99 – Proseminar

MUS - Music - Undergraduate Courses

To view Music Undergraduate requirements, click here (p. 529).

To view Music Graduate requirements, click here. (p. 753)

To view Music Graduate courses, click here. (p. 754)

MUS 1 - MUS 19

MUS 1 - Beginning Music Theory

Instructor: Zsoldos

A course intended for students with little or no knowledge of music theory. Among topics covered are musical notation, intervals, scales, rhythm and meter, and general musical terminology. Concepts will be directly related to music literature in class and through assignments. Students will have the opportunity to compose simple pieces and work on ear training.

Distributive: Dist:ART

MUS 2 - The Music of Today

Instructor: Dong

From Sonic Youth, They Might Be Giants, Battles, Peter Schickele/PDQ Bach, John Zorn, Philip Glass, Arvo Pärt, Ligeti, Xenakis, Tan Dun, Christian Wolff, to Indonesian Quran Reciter Maria Ulfah, this course investigates the sound and ideas of punk/alternative/experimental rock bands, the avant-garde Jazz phenomenon, comic music parody, American and European minimalism, experimentalism, complexity, and ethnic fusion in contemporary classical music.

Distributive: Dist:ART; WCult:W

MUS 3 - American Music

A survey of major influences, great works, important styles, and prominent musicians in American music. Topics vary from year to year, but may include popular music from the eighteenth century to the present; the concert music tradition, both populist and avant-garde; the influence of black music; sacred music; the musical contributions of ethnic and regional subcultures; and the impact of recording, amplification, mediation, and market-driven approaches to music.

Distributive: Dist:ART; WCult:W

MUS 3.01 - African-American Music

What is “African American music”? What is “black music”? What does African American music reveal about race, culture, and American society? And why has African American music, perhaps more than any other music, moved with such energy, crossing boundaries of nation,
race, ethnicity, and been taken up with passion and commitment by people in so many parts of the world? We address these and other core questions as they emerge from specific historic and ethnographic case studies, examining music in an interdisciplinary critical framework that attends to both its aesthetic, experiential, and political meanings. We investigate select African American musical genres in both the U.S. and in global contexts. The course is divided into four units on blues, jazz, rock and hip hop, focusing on themes of text and intertextuality, improvisation and dialogue, technology and sampling. In addition, we address these genres as they are taken up in other parts of the world. Case studies will include blues in the U.K. and Tibet, jazz in France and Japan, and hip hop in Burma and South Africa. Texts, performances, media, in-class workshops all form an integral part of this course.

Cross-Listed as: AAAS 81.06
Distributive: Dist:ART; WCult:CI

MUS 3.02 - American Music: Covers, Theft, and Musical Borrowing
Instructor: Beaudoin

Nearly every genre of American music is marked by its re-invention, adaptation, or outright theft of music from other cultures. We will study a wide cross-section of American music through the prism of musical borrowing. Our perspective includes songwriters, composers, and sound artists in rap, pop, rock, jazz, film, and the avant-garde. Readings on the aesthetics of cover songs, quotations, and plunderphonics will inform our engagement with American music and its sources.

Distributive: Dist:ART; WCult:W

MUS 3.03 - American Music: Roots and Revolutionaries
Instructor: Levin

This course explores diverse forms of American “roots” music—from country blues and Appalachian stringbands to ballads, shape-note singing, and the expressive culture of Arctic indigenous peoples—with the aim of understanding these musical practices on their own terms as well as their profound influence on American musical revolutionaries of the 20th and 21st centuries. Live music is central to the course, and attendance at musical events outside of regular class meetings is expected.

Distributive: Dist:ART; WCult:W

MUS 3.04 - American Music: Music and Metaphor
Instructor: Aschheim

“I was served lemons, but I made lemonade.” —Hattie White, Beyoncé’s Lemonade
As Beyoncé proves, music thrives on metaphor. What does metaphor do for music and us — participants and listeners? This course investigates metaphors in jazz, modernist, global popular (including Afro-Cuban and Egyptian), and minimalist music. We will unite music with philosophy, literature, visual art, science, and politics. The goal: to understand how metaphor shapes our experience of music and our communication with each other.

Distributive: Dist:ART; WCult:W

MUS 3.05 - American Music: Musical Experiments
Instructor: Aschheim

What is experimental music? This course answers that question. To define experimentation, we first turn to science. We then investigate how experimentalism in art music and pop shapes us – creators, participants, listeners – and the diverse, expansive identities of America, from the early 20th century to today. We will feel, and measure, the transgressive and imaginative powers of music. The goal: to learn what it means to try – through music – new ideas and ways of living.

Distributive: Dist:ART; WCult:W

MUS 4 - Global Sounds
Instructor: Levin

A survey of music and music-making whose origins are at least partially in the non-European world. In Spring 2015, the class will address ways that particular kinds of music are culturally and socially contextualized, commodified, and transformed as they circulate globally. Examples include Indian raga, Javanese gamelan, and Gnawa trance music. Course work will include listening, reading, and critical writing assignments. Where possible, visiting musicians will be invited to demonstrate and discuss the music under consideration.

Cross-Listed as: ASCL 70.09
Distributive: Dist:ART; WCult:NW

MUS 5 - Jazz: Black Creative Music and American Culture
Instructor: Bynum

The music known as ‘jazz’ has been one of the most revolutionary and influential artistic movements of the past century. Jazz: Black Creative Music and American Culture will provide a basic historical overview of the music, with major themes including the relationship between composition and improvisation; the reinvention of traditional roles of performer, composer, bandleader, and collective ensemble; and the music’s connection to African-American history and the civil rights movement. Not open to students who have received credit for MUS 05.01, MUS 05.02, AAAS 39.01, or AAAS 39.02.

Cross-Listed as: AAAS 039
I. MAJORS AND THE MINOR OPEN TO THE CLASSES OF 2023 AND EARLIER

MUS 5.01 - History of Jazz to 1965
This course examines jazz from its origins to 1965, with special attention to pivotal figures in the history of jazz such as Louis Armstrong, Duke Ellington, Count Basie, Charlie Parker, Miles Davis, John Coltrane, and Ornette Coleman. Class work includes listening to, analyzing, and discussing a wide variety of recorded jazz performances, and watching jazz films. Class sessions include performances by visiting artists. Outside of class, students will attend live jazz performances, listen to recordings, and read about the artists who brought this music to life. The goal is to help increase understanding, appreciation and enjoyment of the great American art form called jazz.

Distributive: Dist:ART; WCult:W

MUS 5.02 - History of Jazz since 1959
This class examines developments in jazz, starting with historic 1959 recordings by Ornette, Coltrane and Miles Davis, followed by soul jazz, modal jazz, jazz funk, the avant-garde, big bands, Afro-Latin jazz and world jazz. Class work includes close listening, discussions, collaborations and in-class presentations. Students also complete required reading, listening and writing assignments and attend jazz performances, resulting in a deeper understanding and appreciation for jazz and improvisation, both worldwide and in our daily lives.

Cross-Listed as: AAAS 39.02
Distributive: Dist:ART; WCult:W

MUS 6 - Masterpieces of Western Music
An introduction to Western classical music. After a brief introduction to the rudiments of musical notation and theory and to the instruments of the traditional orchestra, the course proceeds to an examination of selected masterworks, with an emphasis on music of the past three hundred years.

Prerequisite: No previous knowledge of music is assumed.
Distributive: Dist:ART; WCult:W

MUS 7 - First-Year Seminar
MUS 8 - Programming for Interactive Audio-Visual Arts
Instructor: Casey
This course presents topics related to interactive visual art generated on a computer. Although it briefly covers computer-generated media art, the course focuses on the programming skills required for creating interactive works. Rather than using commercial software, students write their own programs, using the Processing language, to create interactive visuals and compositions. The course introduces fundamental concepts of how to represent and manipulate color, two-dimensional shapes, images, motion, and video. Coursework includes short programming assignments to practice the concepts introduced during lectures and projects to explore visual compositions. The course assumes no prior knowledge of programming. This course is not open to students who have passed COSC 1 or ENGS 20 or who have received credit for one of these courses via the Advanced Placement exam or the local placement exam.

Cross-Listed as: COSC 002
Distributive: Dist:TLA

MUS 10 - Lives and Works of the Great Composers
Each offering of MUS 10 (an introductory-level course) will center on one or more composers—e.g., Handel, Beethoven, Brahms, Beach, Debussy, Shostakovich, Saariaho—who shaped the course of musical and social history. We will study how music of composers resonated during their lifetimes, and additionally how this music has since lived on through modern performances, scholarship, curation, and popular culture (commercials, films, games). Assignments may include close listening exercises, concert outings, podcasts, papers, and multimedia creations.

Distributive: Dist:ART; WCult:W

MUS 11 - Introduction to Opera
Instructor: Swayne
The term 'opera' encompasses a vast range of music-dramatic forms and involves the extra-musical domains of literature, mythology, the visual arts, religion, philosophy, and social commentary. From its origins in late Renaissance Italy to the present, opera has been a most complex and compelling performing art, as well as a mirror of Western culture. This course will survey the development of opera, focusing on representative works by such composers as Monteverdi, Handel, Purcell, Mozart, Verdi, Wagner, Bizet, R. Strauss, Berg, and Britten. Special attention will be given to music as it relates to libretto and dramatic structure.

Distributive: Dist:ART; WCult:W

MUS 13 - Literature and Music
Instructor: Otter
The affinities between literature and music have always held a special fascination for poets, writers, musicians, and critics. By studying the two arts as comparable media of expression, this course will test the legitimacy of interart parallels. An introduction to the major aspects, aesthetic implications, and interpretive methods comparing the two arts. Topics for lectures and discussion will include: musical structures as literary form; verbal music, word music, and program music; word-tone synthesis in the Lied; music and drama in opera; music in fiction; and the
writer as music critic. Music-related poetry and prose examples, complemented by musical illustrations and ranging from the German and English Romantics through the French symbolists and the Dadaists to contemporary writing, will be selected from texts by Goethe, Brentano, Hoffmann, DeQuincey, Poe, Baudelaire, Mallarmé, Proust, Thomas Mann, Joyce, Eliot, Huxley, Shaw, and Pound. No particular musical background or technical knowledge of music required.

Prerequisite: No particular musical background or technical knowledge of music required.

Cross-Listed as: COLT 60.01
Distributive: Dist:INT or LIT; WCult:W

MUS 14 - Music and Science
This rubric covers courses that approach music from the perspective of neuroscience, mathematics, or engineering. Through the perspective of two or more scholarly disciplines and/or artistic practices, such courses will typically be cross-listed with other departments or programs and co-taught.

Prerequisite: Permission of the instructor.
Distributive: Dist:ART; WCult:W

MUS 14.01 - Music, Mind, Invention
Instructor: Casey
This course explores how the brain represents, learns, and reacts to music, covering musical ability, preference, reward, emotion, and creativity. Drawing from new results in neuroscience, music cognition, and music informatics, topics include: neural codes for pitch, rhythm, timbre, structure, and style; measuring musical performance, listening, and imagination with EEG and fMRI; brain-computer interfaces for music; and music composition and performance using biofeedback.
Distributive: TAS

MUS 14.02 - Datascapes: Objective and Subjective Cinematic Interpretations of Data
Datascapes: Objective and Subjective Cinematic Interpretations of Data. This course explores scientific data as a source for creative inspiration and artistic innovation. Students will explore data, such as: Earth climate and environment; population and society; global financial markets; cells and neuroimaging; and astrophysics data. Drawing on techniques of sonic art, visual art, design, and cinema, each topic will be supported by weekly mentoring by visiting artists. Learning outcomes include programming for data analytics; design and visualization; music composition and sonification; and cinematic methods.
Distributive: Dist:ART; WCult:W

MUS 14.03 - Electronics for Musicians
Instructor: Casey, Hartov
From public address systems to recording performances and the creation of synthetic sounds, electronic technology permeates the making of music in many ways. In this course we propose to familiarize students with the technology behind the production of music. The course will cover analog electronics from microphone to speaker, digital electronics from the acquisition of sounds, their digital processing and their digital synthesis. The course is suitable for music students who are interested in creating custom music synthesis modules and audio effects processors. Students will learn through in-class exploration and through labs. The course will conclude with students completing a project of their choice demonstrating their mastery of the subject.
Cross-Listed as: COCO 017 ENGS 017
Distributive: Dist:TLA

MUS 14.04 - Music, Healing, and Health Equity in Cross-Cultural Perspective
Instructor: Casey, Levin, Mishra
This course explores from different disciplinary and cultural perspectives how music affects the body and the brain, and how culturally-rooted music therapies have leveraged the power of community in the service of socially inclusive health equity as a cultural practice. Case studies address sound and music as a therapeutic agent among Indigenous peoples in North America and Siberia, Sufi healing rituals and sound yoga in India and Pakistan, the theory and practice of music therapy in China, sacred bata drums of Cuban Santeria, and new technologies of sound and music-based healing that work across class, race, and gender to provide access to health and wellness.
Prerequisite: MUS 1 or equivalent experience
Distributive: Dist:ART; WCult:NW

MUS 16 - Music and Image
This course investigates how musical media stimulate social, cultural, and ideological exchange in the twenty-first century. Through global perspectives, we will consider the roles of film, television, video games, music videos, and related media—from autotune controversies to Guitar Hero tournaments, from the live-tweeting of Wagner’s Ring to Tan Dun’s Internet Symphony for the YouTube Orchestra. Prominent themes include: new media’s purported democratizing effects on the production, circulation, and consumption of music; the changing roles and responsibilities of musicians in an age of digital globalization; and the power of musical media to structure human experience writ large.
Distributive: Dist:ART; WCult:W
I. MAJORS AND THE MINOR OPEN TO THE CLASSES OF 2023 AND EARLIER

MUS 16.01 - Visual Music
Instructor: Mack
This course is an introduction to the history of visual music, the exploration of the relationship between music and (mostly) abstract imagery. We will investigate this subject from its predecessors to current day—tracing the constantly expanding practices of visual music through painting, cinema, performance, and installation—from intuitive sketch films to complex algorithmic works. Students should bring an enthusiastic interest in the medium and devote serious effort to reading about, viewing, researching, and discussing all things visual music.
Cross-Listed as: FILM 41.11
Distributive: Dist:ART; WCult:W

MUS 16.02 - Music and Media in Everyday Life
Instructor: Cheng
This course lends an ear to the roles and power of musical media in the new millennium. Prominent themes include: new media’s purported democratizing effects on the production, circulation, and consumption of sound; the changing roles, responsibilities, and relevance of musicians and media artists in the digital age; and the potential for musical and social media to redraw the boundaries human experience, ethics, memory, and identity at large.
Distributive: Dist:ART; WCult:W

MUS 16.03 - Water In the Lake: Real Events for the Imagination
Instructor: Mack
This class, based on the book Water in the lake: Real Events for the Imagination(1979) by Kenneth Maue, fuses cinema, the studio arts, sound, and theatre with the natural landscape in an intense study of improvisation, collectivity, and collaboration in conjunction with the environment. Looking at religion, law, science, and politics as a way to consider cinema, sound, land art, site specificity, performance, and the unfolding of real time events within the artistic context, we will gain the critical capacity to understand intersections of cinema, performance art, video art, land art, and sonic practice. Through viewing films, listening to sounds, and studying works of art spanning painting, sculpture, installation, site-specific practice, and performance, we will inspire and provide critical/historical contexts for your personal work in the course.
Cross-Listed as: FILM 41.17
Distributive: Dist:ART

MUS 17 - Interdisciplinary Studies
This rubric covers courses that approach physical, social, and cultural aspects of music through the perspective of two or more scholarly disciplines and/or artistic practices. Such courses will typically be cross-listed with other departments or programs and co-taught.
Prerequisite: None.
Distributive: ART

MUS 17.01 - Sonic Landscapes
Instructor: Levin, Casas
This experimental interdisciplinary course explores the intersection of ethnography and art as means of documenting how humans interact with landscape and soundscape in some of the earth’s most extreme environments. Examples are drawn from music and sound art, field recordings, film, photography, writing, and emerging multimedia practices, with a focus on the “cross-breeding” of documentary media and methodologies that are mutually enriching. In addition to reading, writing, listening, and viewing assignments, students will conduct their own empirical exploration of the interrelationship of landscape and soundscape through a self-designed audiovisual project. Throughout the course, students will be challenged to develop their own critical, creative, and sensorial understanding of the relationship of nature and culture, and of the relevance of artistic practice to the human sciences.
Distributive: Dist:INT or ART; WCult:NW

MUS 17.02 - Music and Dance of North India
Instructor: Levin
This experimental interdisciplinary course explores traditional North Indian (Hindustani) music and dance as both an artistic practice and a cultural system. Course work combines regular group lessons on the tabla—the principal percussion instrument in the performance of Hindustani raga—with weekly reading, listening, and viewing assignments focusing on Indian music theory, history, and aesthetics. Visiting artists will demonstrate the central dance, instrumental, and vocal forms of Hindustani performing arts. No prior musical experience required.
Cross-Listed as: ASCL 52.01
Distributive: Dist:ART; WCult:NW

MUS 17.03 - Audio-Vision: Film, Music, and Sound
Instructor: Dong, Casas
This interdisciplinary course explores the intersection of Film, Music and Sound, navigating alternatively through film and music from both perspectives, proposing a dual approach to the creation of film and music, imaging and sound. Topics ranging from classic Hollywood, European
and Asian films will be studied along early sound experiments of the avant-garde, audiovisual arts, and contemporary experimental art practices. The course focuses on the connections between filmmakers, composers and artists, while tracing the evolution of audiovision and its interconnections with music composition and sound creation. Students will be paired/grouped to create projects involving music and image.

Cross-Listed as: COCO 16
Distributive: Dist:ART; WCult:NW

MUS 17.04 - The Art, Science, and Symbolism of Musical Instruments
Instructor: Levin, Wegst
A hands-on course in which students working in groups build and assemble simple musical instruments with the aim of understanding how materials, technologies, craftsmanship, and cultural knowledge interact in the conception, design, and production of diverse instruments around the world. Merging the methodologies of engineering and materials science with the approaches of arts and humanities, the course explores from an interdisciplinary perspective the social meanings and powers ascribed to musical instruments, and the way that instruments have come to function as potent symbols of personal, cultural, and political identity.

Cross-Listed as: COCO 020
Distributive: Dist:ART; WCult:NW

MUS 17.05 - The Poetics and Politics of Sounds and Words
This course explores how music and language shape our social worlds and help us imagine new futures. Students will study how music and language are summoned in the service of power but are also used by people to craft and express their own personal and political identities and experiences. The course is designed to give students an introduction to anthropological approaches to language, music, and the dynamic relationship between them in a variety of cultural contexts.

Cross-Listed as: ANTH 50.20
Distributive: Dist:INT or SOC

MUS 17.06 - The Language-Music Connection
Instructor: Levin, McPherson
Language and music are universal components of human experience, so integral that they are often considered part of what defines us as humans. While we treat them as distinct phenomena, the overlap between the two is immense, structurally, neurologically, and culturally. Such connections have long been recognized, but recent research from diverse fields like linguistics, (ethno)musicology, cognitive psychology, anthropology, and neuroscience continues to reveal just how intertwined the two faculties are. Drawing on this body of research and our respective specialties, we explore the language-music connection from the basic ingredients (pitch, timbre, rhythm, syntax), to cultural expression, to evolution and origins. Running through the course is a hands-on case study of a West African xylophone tradition where language and music are so intimately related that they cannot be separated. Students will be taught by a master of the tradition, Mamadou Diabaté, to feel for themselves what it means to speak through an instrument.

Cross-Listed as: COCO 023 LING 11.13
Distributive: Dist:INT or ART; WCult:NW

MUS 18 - Topics in Popular Music
Studies of popular music in social, political, historical, aesthetic, and/or ethical perspectives in Western and/or non-Western cultures.

MUS 18.01 - Pop Music: Past, Present, Future
Instructor: Cheng
This course explores the developments, meanings, and performances of pop music across Western art traditions. What was the pervasive “Gangnam Style” of Renaissance Europe? Was Joseph Haydn the grandfather of the rickroll? And how did the equivalent of “Single Ladies” go viral in the 1920s United States? Tackling these questions seriously enables students to understand pop’s broader historical terrain, and to engage consequently in debates about artistic taste, accessibility, leisure, spreadability, appropriation, and innovation.

Distributive: Dist:ART; WCult:W

MUS 18.02 - Hip-Hop in the United States
Instructor: Martin
This course is an introduction to hip-hop music and culture, intended to offer interdisciplinary perspectives on what is one of the most popular genres in the United States. From its humble origins in New York to now, hip-hop and rap music have changed the sonic landscape of the US and the world. We will examine rap music and hip-hop culture as artistic and sociological phenomena with emphasis on historical, cultural, economic and political contexts. Discussions will include the coexistence of various hip-hop styles, their appropriation by the music industry, and controversies resulting from the exploitation of hip-hop music and culture as a commodity for national and global consumption.

Cross-Listed as: AAAS 39.06
Distributive: Dist:ART; WCult:CI
MUS 20 - MUS 39

MUS 20 - Creative Music Theory
Instructor: Moseley
Explores ways to make and think creatively about music built upon diatonic and pulsed foundations. Prior knowledge of music theory fundamentals is recommended but all concepts are defined from the ground up. A varied repertoire of music is studied. Topics include staff notation, key, mode, melodic technique, motive, interval, phrase rhythm, form, triads and seventh chords, chord labels, arranging, harmonic syntax including secondary dominants, and style considerations. Incorporates work on musicianship.

Distributive: Dist:ART

MUS 21 - Melody and Rhythm
Instructor: Moseley
Explores the art of organizing musical thoughts in time. Drawing from music of four continents and using class performance (singing, body percussion, playing instruments) as a primary vehicle, this course unlocks the structures and strategies employed by effective melodies and rhythms. Students will compose their own music, develop their skills in music analysis, and engage critically with literature on music cognition. Incorporates work on musicianship.

Distributive: Dist:ART; WCult:W

MUS 22 - Harmony and Rhythm
Instructor: Moseley
For students already skilled in harmony and staff notation. We will study concepts and practices relevant to arranging in various styles and writing effectively for specific instruments and ensembles. Idioms include piano, strings, vocal groups, acoustic guitar. Close attention is given to the interplay of harmony and rhythm on a micro level and to macro effects of textural contrast in creating musical form. Readings connect students with musicians past and present who have listened intently to the structure and syntax of chords. Incorporates work on musicianship.

Prerequisite: Students who have not taken MUS 20 should contact the instructor prior to the first day of class.

Distributive: Dist:ART; WCult:W

MUS 23 - Timbre and Form
Instructor: Moseley
An exploration of instrumentation and principles of musical form in Western music. Through weekly analysis and scoring exercises, students learn to read scores, understand musical structure, and write for combinations of instruments with attention to timbre, range, performance techniques, and orchestral idioms. Assignments include arrangements, for small and large ensemble, and formal analyses of several musical works whose aim is to show how composers shape melody, harmony and timbre to create large-scale musical structures.

Prerequisite: MUS 20 or permission of instructor for MUS 23.

Distributive: Dist:ART; WCult:W

MUS 25 - Sonic Arts I: Machine Music
Instructor: Fure
This course explores the impact of music technology on a century of sonic innovators. From room-sized synthesizers to backpack drum machines, from military vocoders to turntable science, we track how electronic tools have scrambled cultural hierarchies on their path from state-funded radio stations to present-day microchips. Both sites of radical Black resistance and tools of a Eurocentric elite, electronic instruments have shaped auditory cultures in myriad, divergent ways. Tracing these threads, we’ll touch on the birth of Hip-Hop, Italian Futurists, Afrofuturism, Musique Concrète, American minimalism, Detroit Techno, and much more.

Class sessions move from theory to practice, merging group discussions of repertoire and readings with hands-on sonic experimentation in Audacity and Ableton Live. Students are lent a home studio kit (with an audio interface, midi keyboard, microphone, and headphones) to compose three sonic art projects throughout the term. Weekly X-hour meetings foster studio-based ear-training skills. Music 25 aims to empower the sonic intelligence in everyone. No previous musical training is required.

Distributive: Dist:TAS

MUS 26 - Sonic Arts II: Sound is Alive
Instructor: Fure
Mus 26 is an upper-level sonic arts studio course. Students will expand their technical and creative capacity with Ableton Live and be introduced to software tools for sound synthesis and generative music (Max/MSP, Spear). Though technically focused, the goals of this course are creative in nature: to broaden each student’s sonic palette through increased facility with software tools; to stretch each student’s aesthetic imagination through exposure to repertoire and invited artists; and to strengthen each student’s creative work habits through weekly course projects and crits.

Prerequisite: Mus 25 or instructor's permission

Distributive: Dist:ART; WCult:W

MUS 27 - Sound Design
The purpose of this course is to develop our listening skills. To broaden our understanding of music and noise
and how to talk about them. To investigate how sound works with both text and movement. To understand how sound can create context, tension, release, and surprise. To explore designing collaboratively. Projects include creating soundscapes and scoring short works.

Prerequisite: MUS 25 or consent of instructor.

Cross-Listed as: THEA 10.26
Distributive: Dist:ART

MUS 27.01 - Emerging Musical Theater

A musical tells a story with words and music. Beyond those basic parameters, any limitations around what a musical can and cannot be are up for debate. This multi-disciplinary class is open to composers, lyricists, songwriters, playwrights, directors, actors, singers, dancers, poets and musicians of any background. The objective is to investigate the form of the musical through the lens of sonic arts. In addition to looking at the past present and future of American musical theater we will engage a broad exploration musical storytelling, across many aesthetic sensibilities and time periods. The class requires weekly creative output in addition to reading and listening outside of class. Students must be willing to work across the boundaries of their own disciplines to generate lyrics, melodies and scenes. The class will establish a generous inter-disciplinary working environment which values creative risks, collaboration and inventiveness.

Cross-Listed as: THEA 10.28
Distributive: Dist:ART

MUS 28 - Sonic Space and Form

Instructor: Nam

An exploration of mixing, shaping, and controlling sound and form in notated, produced, recorded, and live audio. Through weekly analysis and production exercises, students learn to read and manipulate mixes, filters, phase, convolution, and more advanced spectral techniques to apply these principles to musical structure, and write for combinations of sounds with attention to timbre, range, spatialization/imaging, and production idioms. Assignments include three "orchestration" assignments, ranging from elementary to complex—the aim of which is to show how composers and producers shape sound, density, and timbre to create vibrant sonic forms.

Prerequisite: MUS 25 or consent of instructor.

Distributive: ART

MUS 30 - Making Music

“Making Music” encompasses composition studies in any musical genre, style, or domain including but not limited to acoustic, electronic, film scoring, multimedia, jazz, pop, rock, and world music. Course work focuses on a term-long creative project designed with the instructor during which students receive intensive private instruction and, in parallel, participate in a weekly seminar that addresses topics in musical composition and analysis relevant to class members' work.

Prerequisite: MUS 20 or permission by instructor.

Distributive: Dist:ART

MUS 30.01 - Composition Seminar

This course is for those intending to pursue compositional studies of any genre, style, or type of music at either the basic, intermediate, or advanced levels. Students will engage in extended creative projects designed in conjunction with the instructor during which they will receive intensive private instruction and participate in composition seminars. Projects may be undertaken in any of the following musical domains: acoustic, avant-garde, culturally-grounded, experimental, folk, inter- or multi-media, jazz, popular, rock, and traditional, or any other creative interest of the students enrolled. The term's work will include analyzing literature pertinent to the current session, and writing short compositions and essays involving the aesthetic, creative, and technical issues at hand.

Distributive: Dist:ART

MUS 30.02 - Film Scoring

Instructor: Dong

From music to image, this creative writing course explores the fundamental craftsmanship and aesthetic aspects of composing for film and media. We investigate and analyze the intersection of film, music and sound over the term. The course is structured in five modules, in which students are assigned to create original music and sound for four films (an animation, documentary, feature and experimental film) with acoustic, or a combination of electronic and acoustic instruments. The final project will be read and recorded with DSO musicians led by conductor Filippo Ciabatti. One (maximum of two) of the final projects will be chosen to present at a future DSO concert(s).

Prerequisite: MUS 20; An interest in creating music and by instructor's permission.

Distributive: Dist:ART

MUS 32 - Improvisation

Instructor: Dong

“Improvisation” describes a wide variety of musical practices around the world through which musicians at least partially extemporize a musical performance. This course aims to develop skills in improvisatory music-making both through practical experimentation and exercises, and by analyzing approaches to improvisation in
selected musical styles, traditions, and works, with a focus on pieces by contemporary composers and avant-garde free improvisation. For a final project, students will prepare and present a concert of improvised works.

Prerequisite: MUS 1 or exemption from MUS 1.

Distributive: Dist:ART; WCult:W

MUS 34 - Sound Art Practice
Instructor: Fure

The past half-century has witnessed a “sonic turn” in the visual arts. From installation to sonic sculptures, performance-based and participatory practices, artists have increasingly explored sound as a social, political, and corporeal phenomenon. This course is a studio introduction to the development of sound art as a social, sculptural, and environmental medium. Exploring repertoire at the nexus of experimental music, sculpture, installation, architecture and relational art, students will develop conceptual tools and practical skills that enable independent intermedial work. Collaborative projects across diverse skill sets will be encouraged, and those with backgrounds in music, architecture, art, engineering, science, CS, dance and theater are encouraged to apply.

Prerequisite: MUS 25 or consent of instructor.

Distributive: Dist:TAS; WCult:W

MUS 35 - The Jazz Language
This course will present the essential elements of the “jazz vocabulary” to instrumentalists and vocalists. The language of jazz consists of the common melodic phrases, rhythms, harmonies, song forms and timbres that are employed by jazz musicians in jazz compositions and improvisations. Students will learn to use this language by applying it to a variety of compositions from the standard jazz repertoire including Blues, 16 measure forms, AABA and ABAC song forms as well as non-traditional and freer forms. Time in and out of class will be a balance of listening to and studying jazz recordings and playing jazz compositions with other members of the class. Watching jazz videos, practicing ear training, transcribing and analyzing melodies and solos as well as playing songs, solo transcriptions and jazz exercises. In-class rehearsals, individual practice outside of class and working through the process of preparation for a final performance will be the primary focus of this course. The development of each student's creativity will be an integral part of the work in this class.

Distributive: Dist:ART

MUS 36 - Songwriting 1
Instructor: Alvarez

The practice of animating language with music shows up in nearly every culture in the world. Throughout time, songs have been a medium for emotion, story, survival, cultural memory, spiritual practice, celebration, mourning, commerce and more. In this course students will explore the technical, sonic, formal, poetic and metaphysical dimensions of songs through a rigorous weekly practice of songwriting, listening, sharing and critique. We will look broadly at songwriting techniques from many genres and traditions, and we will acquire powerful tools for unlocking and understanding the musicality that exists in language, and the meaning that can unfold from harmonic, melodic and sonic gestures. This course is open to students with any level of musical training or ability, but comfort with singing in front of others is recommended. Not open to students who have received credit for MUS 031.

Distributive: Dist:ART

MUS 37 - Songwriting 2: Making the Album
This course will focus on the process of composing and recording a collection of original songs. We will look at the emergence of the “album” as relates to the evolution of recording technologies and the craft of songwriting while each student will hone in on their own compositional voice. Over the course of the term students will explore albums across multiple platforms, time periods and genres, while composing and recording their own collection of original songs. We will also study recording fundamentals including mic placement, tracking, editing, mixing, equalization, compression, reverb and delay. The final project of this course will be a three to five song EP created by each student as a solo project or collaboration. The course is open to music makers of all genres and aesthetic sensibilities.

Distributive: Dist:ART

MUS 38 - Noise: Exploring Liberation in Sound
Instructor: Alvarez

Music, as the organization of sound, is a borderless practice that expands across boundaries of discipline, culture, aesthetic category and social hierarchy. How can we enter into a sonic practice with that cosmic lens? Our musical educations have given us well-lit lanes for music making, but the objective of this course is to run our musical thinking off the road. Through weekly creative provocations we will venture into the wilderness of our most urgent spiritual, political, philosophical and ontological concerns. Through an engagement with critical theory, listening, embodied vocal work, social and creative practice, this course will approach music making in opposition to discipline. We will examine the musical (and non-musical) systems in which we participate, and seek to devise a co-created liberatory space for our musical impulses. This course is open to music makers and thinkers of all backgrounds and skill levels, regardless of musical training.

Distributive: Dist:ART
MUS 40 - MUS 49

MUS 40.02 - Nineteenth-century Music
This course, which covers music from 1790 to 1918, will provide the successful student greater aural mastery of the diverse repertoire from this period and a firmer understanding and mastery of the historical facts in order to place the music within a broad political, literary, artistic, scientific, economic, and religious framework. Individual work will be assigned, and the successful student will read and listen widely to become more conversant with this period of history.
Distributive: Dist:ART; WCult:W

MUS 40.04 - Music and Social Identity
Instructor: Cheng
This course introduces students to the circulation and construction of gender, sexuality, race, ethnicity, nationality, class, disability, religious belief, political affiliation, and other forms of identity in musical cultures from c. 1750 to the present. Much attention will be devoted to Western art repertoire, but global perspectives and popular music will also come into play. Overarching themes include cooperation, dissent, protest, activism, propaganda, and censorship. Was Schubert gay—and does it matter? Is anti-Semitism discernible in Wagner’s music? What are the roles of music in Deaf cultures? Should we care about Obama’s iPod playlist? In navigating such questions, we will contemplate how composers, performers, critics, fans, scholars, and teachers of music negotiate their identities in everyday life.
Distributive: Dist:ART; WCult:W

MUS 40.05 - Topics in Music History: Russian Music
The objective of this course is to give the student an overview of Russian music in order better to understand the cultural, religious, and political history of Russia’s past 1,000 years and to position the student’s ongoing mastery of this history within a larger context. Questions that emerge from this course will find echoes in current cultural, religious, and political issues, and students will be directed to explore these intersections in class discussions and coursework.
Cross-Listed as: RUSS 11.04
Distributive: Dist:ART; WCult:W

MUS 40.06 - Sounds of Totalitarianism and Resistance
Instructor: Simon
This course is dedicated to exploring how twentieth-century music and culture became entangled in the political and social conditions of governments. We will read foundational scholarship in Fascist Studies, musicology, media and sound studies that takes into account the multifaceted nature and deeply rooted legacy of totalitarian states. Our goal is to understand how composers, performers, filmmakers and audiences have reckoned with authoritarian politics and to develop a nuanced understanding of politics’ role in music and media, both historical and contemporary.
Cross-Listed as: FILM 47.32
Distributive: Dist:ART; WCult:W

MUS 41 - Musical Innovators
These seminars are devoted to musical innovators whose work changed the trajectory of their art form. Focusing on an individual artist or movement, each course will unfold the origin, development, diffusion, and lasting influence of new musical thinking. Through reading, listening, and creative projects, this seminar brings students into dialogue with the artistic process and historical environment of a specific composer, performer, sound artist, or thinker whose work altered the future of music.
Prerequisite: MUS 21 or MUS 22, or permission of the instructor
Distributive: Dist:ART; WCult:W

MUS 41.01 - Debussy the Innovator
Debussy’s music acted as a fulcrum between the 19th and 20th centuries, and remains an active influence on contemporary musicians. To mark the centennial of his death in 1918, this course investigates the composer’s innovative approach to harmony, color, rhythm, and form. Though analytic and creative projects, we connect Debussy’s instrumental and vocal music to concurrent movements in literature, painting, and politics. We gauge his profound influence on modernism, post-modernism, jazz, film scoring, and the music of today. Reading primary sources will shed light on his complex personal life and alter-identity as Monsieur Croche. The course culminates in a study of Debussy as performer, investigating his own 1913 recordings on the Welte-Mignon reproducing piano.
Distributive: Dist:ART; WCult:W

MUS 42 - From Plato to Mozart (Early Classical Music)
Instructor: Beaudoin
This course introduces the composers and repertoires of Western classical music from ancient civilizations to ca. 1800. Our study emphasizes the development of musical instruments, the origins of written notation, and the constant search for new ways to organize sound. Examining numerous instrumental and vocal works, we will reflect on critical issues of history, virtuosity, class, gender, religion, censorship, and humor.
Distributive: Dist:ART; WCult:W
MUS 43 - From Beethoven to Now (Modern Classical Music)
Instructor: Beaudoin
This course introduces the composers and repertoires of Western classical music since 1800. Our study spans the monumentalities of Romanticism, the upheavals of Modernism, and the innovations, digital technologies, and multiplicities of today. Examining numerous instrumental and vocal works, we will consider how compositional, societal, and economic change has destabilized the very definability of classical music, leading to its vibrant and variegated present.
Distributive: Dist:ART; WCult:W

MUS 45 - Topics in World Music
Drawing from the world’s rich and diverse musical traditions, this course focuses on music and musical life in a particular geographic region or on a specific topic addressed from a cross-cultural and/or interdisciplinary perspective.
Distributive: Dist:ART; WCult:NW

MUS 45.03 - The Music of Central Asia
Instructor: Levin
The course will focus on music in Central Eurasia—the core region of the historical Silk Road—and on musical connections between Central Asia and regions to which it has been historically linked by trade and cultural exchange. Course work includes reading and critical writing as well as listening and viewing assignments. No prerequisite.
Distributive: Dist:ART; WCult:NW

MUS 45.04 - Music and Social Justice
Instructor: Cheng
This course asks what we can do for music and what music can do for the world. Our research and discussions lead us not simply to concrete examples of music functioning as an agent of change, but furthermore to contested notions of what it even means (and takes) to claim that something—society, art, people, culture, values—has undergone notable transformation. How do we think and talk about change via discourses of reform, revolution, rehabilitation, activism, innovation, progress, and productivity? What are some distinguishing features of music and sound that might enable them to serve as flashpoints or vehicles for change? And how might you—in this class and beyond—engage with music and its technologies to fulfill causes most meaningful to you?
Distributive: Dist:ART; WCult:CI

MUS 45.05 - Polyphony
Instructor: Levin
Drawing from the world’s rich and diverse musical traditions, this course focuses on music and musical life in a particular geographic region or on a specific topic addressed from a cross-cultural and/or interdisciplinary perspective. In fall 2016, the focus is on polyphony—music composed or improvised by combining two or more distinct melodic lines. Examples will be drawn from contemporary and historical musical traditions of West Africa, Sardinia, Georgia, Tuva, and Western Europe. No prerequisite; no prior musical experience is required.
Distributive: Dist:ART; WCult:NW

MUS 45.06 - Music from the Lands of the Silk Road
Instructor: Levin
Drawing from the world’s rich and diverse musical traditions, this course focuses on music and musical life in a particular geographic region or on a specific topic addressed from a cross-cultural and/or interdisciplinary perspective. The focus of this particular topic is on music from the lands of the Silk Road—the network of trade routes that crisscrossed Eurasia, linking East Asia, South Asia, and Central Asia with Persia, the Middle East, and Europe. Examples will be drawn from contemporary musical traditions of Central Asia, Korea, Japan, China, Azerbaijan, and India. No prior musical experience is required.
Cross-Listed as: ASCL 70.10
Distributive: Dist:ART; WCult:NW

MUS 45.07 - Afropop!
Instructor: Inglese
How have African musicians created lively fusions of precolonial and western genres (including jazz, soul, and hip hop)? How have African musicians negotiated independence, democratization, and postcoloniality through their musical expressions? How have they used music to forge links with Africans in other nations and a broader African diaspora? And how have African popular musics, and the musicians themselves, circulated in local and global contexts? In this course, we investigate a range of popular musics from the African continent, focusing in particular on music from Western and Southern Africa. Students will be introduced to diverse genres, from highlife to chimurenga to kwaito, and the methodological approaches of ethnomusicology. Each case study fits into four broad course themes: music and political dissent; music and diaspora; African music and the “World Music” industry; music and youth culture. Texts, performances, media, and in-class workshops all form an integral part of this course.
Cross-Listed as: AAAS 87.10
Distributive: Dist:ART; WCult:NW
MUS 45.08 - Cities, Subjects & Sonic Africa
Instructor: Inglese
This course poses the questions: What has been the role of musical expression in shaping the experiences of Africans throughout the world? How does sound function as a site of socio-political contestation that reflects and shapes ideas about race, identity, place and belonging? To answer these questions, we situate specific ethnographic case studies within an interdisciplinary framework. Texts, performances, media, and experiential workshops all form an integral part of this course.
Cross-Listed as: AAAS 88.14
Distributive: Dist:ART; WCult:NW

MUS 45.09 - Music and the Racial Imagination
This course investigates how the construction, imagination, and lived experience of race has influenced musical production, reception, and analysis. We begin by addressing the history of the concept of race, then turn to a series of musical case studies that variously articulate music’s relationship to the construction and negotiation of racial categories. Topics are primarily drawn from the U.S. and include: Asian American hip hop; the “race record” industry; country music and “whiteness,” amongst others.
Cross-Listed as: AAAS 88.20
Distributive: Dist:ART; WCult:NW

MUS 45.10 - Jewish Music: Traditional and Modern
This course draws on diverse musical genres, styles, and forms of expression associated with the label “Jewish music” in order to interrogate the very notion of “Jewish music.” Examples range from traditional music associated with religious rituals to contemporary American popular songs, modern nationalist Hebrew songs, Franco-Oriental chansons, and klezmer festivals in Jewish-less spaces in Europe. Course material is accessible to students with no prior musical experience or ability to read music notation.
Cross-Listed as: JWST 10.05
Distributive: Dist:ART; WCult:CI

MUS 45.11 - The Power of Music
Why is music powerful and what are the sources of its powers? From the Pythagorean “music of the spheres” and Plato’s inventory of the ethical attributes of musical scales and modes to Siberian shaman drumming, Sufi “trance music,” and contemporary debates about the "weaponizing" of music, the powers attributed to music have inspired a broad range of philosophical speculation, scientific and pseudoscientific analysis, and critical writing. The aim of the course is to illuminate some of the ways in which music’s powers have been explained and described in various times, places, and cultures as well as to develop a critical vocabulary for speaking and writing about music from an evidence-based perspective. In short weekly papers, students will critique musical works and musical performances (both live and recorded) as well as offer their own critical interpretations of selected texts about music. Each class member will develop a final project due at the end of the term that addresses a course-related topic of personal interest. Weekly listening/viewing assignments are drawn from a range of global musical sources. Not open to students who have received credit for MUS 07.06.
Distributive: Dist:ART; WCult:NW

MUS 45.12 - Advanced Studies in Jazz History: A Century of Jazz at Dartmouth
Instructor: Bynum
Advanced Studies in Jazz History offers students the opportunity for in-depth research into specific topics pertaining to Black Creative Music. This term we will be turning our gaze inward, exploring Dartmouth’s own history with jazz and other forms of Black music over the past century. Through a combination of primary source research, interviews and oral history, and creative storytelling and writing, the goal of this course is to generate lasting, honest, insightful, and engaging documentation of the complicated history of jazz at Dartmouth.
Cross-Listed as: AAAS 39.03
Distributive: Dist:ART

MUS 46 - Video Games and the Meaning of Life
Instructor: Cheng
Video Games and the Meaning of Life is an interdisciplinary course that explores the modern human condition through the stories, designs, and soundscapes of digital games—from the perils of obedience (Hannah Arendt and The Stanley Parable) to the metaphors of illness (Susan Sontag and That Dragon, Cancer), from the deathless dreams of pacifism (Undertale) to the transnational rise of today’s billion-dollar e-Sports industry (League of Legends). All students are welcome; no gaming or musical experience needed.
Cross-Listed as: COLT 40.07 FILM 50.04
Distributive: Dist:TMV; WCult:CI

MUS 50 - Performance Laboratories
Performance Laboratories provide weekly coaching and instruction in diverse forms of music making and are open by audition to all Dartmouth students. Course work centers on musical readings and informal performance of selected repertoire chosen both for its intrinsic interest and for its relevance to the contents of course syllabi within the
Department of Music. Performance laboratories may be taken for credit (three terms equals one credit) or on a not-for-credit basis. Subject to space availability, students may enroll in different laboratories during different terms. Terms of enrollment need not be consecutive.

Distributive: ART

MUS 50.11 - Chamber Music I
Instructor: Cassidy, Hayes
Depending on enrollment and distribution of instruments, this laboratory may be broken down into several configurations, e.g., quartet, piano quintet, wind octet, string trio, etc. Repertoire focuses on chamber music from the eighteenth century through the first half of the twentieth.

Distributive: Dist:ART; WCult:W

MUS 50.12 - Chamber Music II
Instructor: Cassidy, Hayes
Depending on enrollment and distribution of instruments, this laboratory may be broken down into several configurations, e.g., quartet, piano quintet, wind octet, string trio, etc. Repertoire focuses on chamber music from the eighteenth century through the first half of the twentieth.

Prerequisite: MUS 50.11

MUS 50.13 - Chamber Music III
Instructor: Cassidy, Hayes
Depending on enrollment and distribution of instruments, this laboratory may be broken down into several configurations, e.g., quartet, piano quintet, wind octet, string trio, etc. Repertoire focuses on chamber music from the eighteenth century through the first half of the twentieth.

Prerequisite: MUS 50.12

MUS 50.21 - Contemporary Music I
Instructor: Garapic
The contemporary music laboratory will read through and study works appropriate to the participants' skill level, and where possible, collaborate with Dartmouth's compositional community in informal performances of newly-composed works.

Prerequisite: MUS 50.21

Distributive: Dist:ART; WCult:W

MUS 50.22 - Contemporary Music II
Instructor: Garapic
The contemporary music laboratory will read through and study works appropriate to the participants' skill level, and where possible, collaborate with Dartmouth's compositional community in informal performances of newly-composed works.

Prerequisite: MUS 50.22

Distributive: Dist:ART; WCult:W

MUS 50.23 - Contemporary Music III
Instructor: Garapic
The contemporary music laboratory will read through and study works appropriate to the participants' skill level, and where possible, collaborate with Dartmouth's compositional community in informal performances of newly-composed works.

Prerequisite: MUS 50.23

Distributive: Dist:ART; WCult:W

MUS 50.31 - Jazz Improvisation I
Instructor: Zsoldos
This course serves as a laboratory for students with some preparation in jazz to develop skills in composition, arranging, and performance. Ensemble configurations will be determined each term on the basis of enrollment.

Distributive: Dist:ART; WCult:W

MUS 50.32 - Jazz Improvisation II
Instructor: Zsoldos
This course serves as a laboratory for students with some preparation in jazz to develop skills in composition, arranging, and performance. Ensemble configurations will be determined each term on the basis of enrollment.

Prerequisite: MUS 50.31

Distributive: Dist:ART; WCult:W

MUS 50.33 - Jazz Improvisation III
Instructor: Zsoldos
This course serves as a laboratory for students with some preparation in jazz to develop skills in composition, arranging, and performance. Ensemble configurations will be determined each term on the basis of enrollment.

Prerequisite: MUS 50.32

Distributive: Dist:ART; WCult:W

MUS 50.41 - Opera Lab I
Instructor: Ciabatti, Mellinger, Webster
This course serves as a laboratory for voice students, or students with an interest in vocal music, to develop vocal, language, and acting skills, working on repertoire of
MUS 50.42 - Opera Lab II
Instructor: Ciabatti, Mellinger, Webster
This course serves as a laboratory for voice students, or students with an interest in vocal music, to develop vocal, language, and acting skills, working on repertoire of different ages. Repertoire will be determined each term on the basis of enrollment.
Prerequisite: MUS 50.41
Distributive: Dist:ART; WCult:W

MUS 50.43 - Opera Lab III
Instructor: Ciabatti, Mellinger, Webster
This course serves as a laboratory for voice students, or students with an interest in vocal music, to develop vocal, language, and acting skills, working on repertoire of different ages. Repertoire will be determined each term on the basis of enrollment.
Prerequisite: MUS 50.42
Distributive: Dist:ART; WCult:W

MUS 51 - Oral Tradition Musicianship
Instructor: Shabazz
Through disciplined practice of West African, Afro-Caribbean, and Afro-Brazilian percussion-based music under the leadership of a master drummer, students will enter a musical world in which creating, mentoring, and communicating are all rooted in oral tradition. Weekly music making is integrated with discussions and audio-visual materials that culturally contextualize the musical traditions being performed.
Prerequisite: None.
Distributive: Dist:ART; WCult:NW

MUS 52 - Conducting
The conductor has ultimate responsibility for an ensemble's performance. This course is designed to provide a philosophical basis and practical introduction to the art and discipline of conducting music. Preparation of the score (melodic, harmonic and form analysis, transposing instruments and clefs), baton technique, historical styles and performance practices, and rehearsal procedures will be studied and applied. Instrumental and vocal music will be incorporated into daily class assignments as well as midterm and final project performances.
Prerequisite: MUS 20, or permission of the instructor.
Distributive: ART

MUS 52.01 - Conducting and Artistic Direction
This course provides a practical introduction and the theoretical underpinnings for the art of conducting and study of the musical score. At the center of this endeavor is the analysis of music through the lens of the conductor-scholar, which develops in the expression of music through gesture. Students will be required to attend weekly workshops in the art of conducting, as well as in the study and analysis of three major works of contrasting styles. The course culminates in a final conducting workshop with professional musicians.
Prerequisite: Two courses from MUS 21-23, and one course from MUS 6, 10, 11, or 40-44, or permission of the instructor
Distributive: Dist:ART

MUS 52.02 - Applied Conducting
Instructor: Messier
This is a practical, movement based course. The conducting curriculum will focus on score study and physical movement, tested through conducting labs with live musicians. The conducting curriculum will be supplemented by readings, projects, and seminar-style discussions of musical entrepreneurship, music business, and music-making in the 21st century.
Prerequisite: MUS 20, or permission of the instructor.
Distributive: Dist:ART

MUS 52.03 - The Art of Conducting: An Introduction to Choral and Orchestral Conducting
Instructor: Ciabatti
This course provides a practical introduction and the theoretical underpinnings for the art of conducting and study of the musical score. At the center of this endeavor is the analysis of music through the lens of the conductor-scholar, which develops in the expression of music through gesture. Students will be required to attend weekly workshops in the art of conducting, as well as in the study and analysis of three major works from the choral and orchestral repertoire. In this course, the students will have the opportunity to conduct Dartmouth’s choral and orchestral ensembles (Glee Club, Handel Society, and Dartmouth Symphony Orchestra).
Prerequisite: MUS 20 or permission of the instructor.
Distributive: Dist:ART

MUS 53 - MUS 69 (Individual Instruction Program)
Courses within the Individual Instruction Program (IIP: MUS 53–58) consist of three terms of weekly private instruction, for which the student receives one course credit. The following objectives may be addressed: improving sound production, technical facility, phrasing,
I. MAJORS AND THE MINOR OPEN TO THE CLASSES OF 2023 AND EARLIER

and articulation; broadening repertory; advancing sight reading skills; gaining new understanding of music studied in the broader context of its history, its theoretical construction, and its socio-cultural dimensions. Students are encouraged to engage in critical self-awareness and to perform at least once per term.

- Prior to the initial term, prospective students contact and audition for the instructor and receive permission from the instructor to enroll for the course.

- Students enroll for each term of the three-term IIP courses during the normal course registration periods. At the end of the first and second terms of enrollment, students receive the grade of “ON”, indicating that the student is in the process of completing a three-term IIP course (“ON” grades remain on the transcript). Upon successful completion of the third term, students receive one course credit and a final grade.

The course will count in the course load of the third term. Students will be reminded to monitor their course load accordingly. The course must be completed during consecutive terms in which the student is enrolled on campus, bearing in mind that IIP courses are not offered during summer term. It is expected that an IIP course sequence will be completed within two calendar years of the course’s initiation. Exceptions are rare and require the instructor’s approval.

Students will receive a “W” on their transcript if they drop an IIP course following the normal course withdrawal regulations for each term.

Students may take courses within the Individual Instruction Program more than once. To initiate a new three-course sequence, they must again receive instructor permission.

No more than four course credits from the following courses may be counted by any student toward the Dartmouth degree: MUS 050, MUS 053, MUS 054, MUS 055, MUS 056, MUS 057, MUS 058, MUS 059.

MUS 53.01 - Keyboard Individual Instruction: Classical and Jazz Piano and Organ I
Instructor: Eckroth, Hayes, Pinkas
Keyboard Individual Instruction: Classical and Jazz Piano and Organ
Distributive: Dist:ART; WCult:W

MUS 53.02 - Keyboard Individual Instruction: Classical and Jazz Piano and Organ II
Instructor: Eckroth, Hayes, Pinkas
Keyboard Individual Instruction: Classical and Jazz Piano and Organ II
Prerequisite: MUS 53.01
Distributive: Dist:ART; WCult:W

MUS 53.03 - Keyboard Individual Instruction: Classical and Jazz Piano and Organ III
Instructor: Eckroth, Hayes, Pinkas
Keyboard Individual Instruction: Classical and Jazz Piano and Organ III
Prerequisite: MUS 53.02
Distributive: Dist:ART; WCult:W

MUS 54.01 - Woodwind Individual Instruction: Flute, Oboe, Clarinet, Bassoon, Saxophone
Instructor: Boyer, Braude, Halloran, Polk, Zsoldos

MUS 54.02 - Woodwind Individual Instruction: Flute, Oboe, Clarinet, Bassoon, Saxophone
Instructor: Boyer, Braude, Halloran, Polk, Zsoldos
Prerequisite: MUS 54.01

MUS 54.03 - Woodwind Individual Instruction: Flute, Oboe, Clarinet, Bassoon, Saxophone
Instructor: Boyer, Braude, Halloran, Polk, Zsoldos
Prerequisite: MUS 54.02
Distributive: Dist:ART

MUS 55.01 - Brass Individual Instruction: Trumpet, French Horn, Trombone, Tuba
Instructor: Carroll, Kennelly

MUS 55.02 - Brass Individual Instruction: Trumpet, French Horn, Trombone, Tuba
Instructor: Carroll, Kennelly
Prerequisite: MUS 55.01

MUS 55.03 - Brass Individual Instruction: Trumpet, French Horn, Trombone, Tuba
Instructor: Carroll, Kennelly
Prerequisite: MUS 55.02
Distributive: Dist:ART
MUS 56.01 - String Individual Instruction: Violin, Viola, Cello, Bass Viol, Electric Bass, Classical and Electrical Guitar
Instructor: Cassidy, Doty, Dunlop, Ennis, Guey, Muratore

MUS 56.02 - String Individual Instruction: Violin, Viola, Cello, Bass Viol, Electric Bass, Classical and Electrical Guitar
Instructor: Cassidy, Doty, Dunlop, Ennis, Guey, Muratore
Prerequisite: MUS 56.01

MUS 56.03 - String Individual Instruction: Violin, Viola, Cello, Bass Viol, Electric Bass, Classical and Electrical Guitar
Instructor: Cassidy, Doty, Dunlop, Ennis, Guey, Muratore
Prerequisite: MUS 56.02
Distributive: Dist:ART

MUS 57.01 - Voice Individual Instruction
Instructor: Burkot, Mellinger

MUS 57.02 - Voice Individual Instruction
Instructor: Burkot, Mellinger
Prerequisite: MUS 57.01

MUS 57.03 - Voice Individual Instruction
Instructor: Burkot, Mellinger
Prerequisite: MUS 57.02
Distributive: Dist:ART

MUS 58.01 - Percussion Individual Instruction
Instructor: Garapic

MUS 58.02 - Percussion Individual Instruction
Instructor: Garapic
Prerequisite: MUS 58.01

MUS 58.03 - Percussion Individual Instruction
Instructor: Garapic
Prerequisite: MUS 58.02
Distributive: Dist:ART

MUS 59 - Ensemble Performance and Leadership
Students participating in Hopkins Center music ensembles may enroll in this three-term course to develop additional knowledge and skills in ensemble performance, music history and theory, and organization. Students will work with their ensemble director to create an individual portfolio consisting of musicianship topics taken over three terms of ensemble study (see assessment below). The final grade will be based on demonstrated individual achievement in the chosen topics and in a final project or performance.

MUS 59.11 - Coast Jazz Orchestra I
Instructor: Bynum
This topic is for Ensemble Performance and Leadership for students in the Coast Jazz Orchestra.

MUS 59.12 - Coast Jazz Orchestra II
Instructor: Bynum
This topic is for Ensemble Performance and Leadership for students in the Coast Jazz Orchestra.
Prerequisite: MUS 59.11

MUS 59.13 - Coast Jazz Orchestra III
Instructor: Bynum
This topic is for Ensemble Performance and Leadership for students in the Coast Jazz Orchestra.
Prerequisite: MUS 59.12
Distributive: Dist:ART

MUS 59.21 - Dartmouth College Glee Club I
Instructor: Ciabatti
This topic is for Ensemble Performance and Leadership for students in the Dartmouth College Glee Club.

MUS 59.22 - Dartmouth College Glee Club II
Instructor: Ciabatti
This topic is for Ensemble Performance and Leadership for students in the Dartmouth College Glee Club.
Prerequisite: MUS 59.21

MUS 59.23 - Dartmouth College Glee Club III
Instructor: Ciabatti
This topic is for Ensemble Performance and Leadership for students in the Dartmouth College Glee Club.
Prerequisite: MUS 59.22
Distributive: Dist:ART

MUS 59.31 - Dartmouth College Gospel Choir I
Instructor: Cunningham
This topic is for Ensemble Performance and Leadership for students in the Dartmouth College Gospel Choir.

MUS 59.32 - Dartmouth College Gospel Choir II
Instructor: Cunningham
This topic is for Ensemble Performance and Leadership for students in the Dartmouth College Gospel Choir.
MUS 59.33 - Dartmouth College Gospel Choir III
Instructor: Cunningham
This topic is for Ensemble Performance and Leadership for students in the Dartmouth College Gospel Choir.
Prerequisite: MUS 59.32
Distributive: Dist:ART

MUS 59.41 - Handel Society of Dartmouth College I
Instructor: Ciabatti
This topic is for Ensemble Performance and Leadership for students in the Handel Society of Dartmouth College.
Prerequisite: MUS 59.41

MUS 59.42 - Handel Society of Dartmouth College II
Instructor: Ciabatti
This topic is for Ensemble Performance and Leadership for students in the Handel Society of Dartmouth College.
Prerequisite: MUS 59.42
Distributive: Dist:ART

MUS 59.51 - Dartmouth Symphony Orchestra I
Instructor: Ciabatti
This topic is for Ensemble Performance and Leadership for students in the Dartmouth Symphony Orchestra.
Prerequisite: MUS 59.51

MUS 59.52 - Dartmouth Symphony Orchestra II
Instructor: Ciabatti
This topic is for Ensemble Performance and Leadership for students in the Dartmouth Symphony Orchestra.
Prerequisite: MUS 59.51

MUS 59.53 - Dartmouth Symphony Orchestra III
Instructor: Ciabatti
This topic is for Ensemble Performance and Leadership for students in the Dartmouth Symphony Orchestra.
Prerequisite: MUS 59.52
Distributive: Dist:ART

MUS 59.61 - Dartmouth College Wind Ensemble I
Instructor: Messier
This topic is for Ensemble Performance and Leadership for students in the Dartmouth College Wind Ensemble.

MUS 59.62 - Dartmouth College Wind Ensemble II
Instructor: Messier
This topic is for Ensemble Performance and Leadership for students in the Dartmouth College Wind Ensemble.
Prerequisite: MUS 59.61

MUS 59.63 - Dartmouth College Wind Ensemble III
Instructor: Messier
This topic is for Ensemble Performance and Leadership for students in the Dartmouth College Wind Ensemble.
Prerequisite: MUS 59.62
Distributive: Dist:ART

MUS 60 - Studies in Musical Performance: Keyboard
Instructor: Eckroth, Hayes, Pinkas
This course consists of the intensive private study of a small number of selected works through their performance. Beyond technical mastery of the instrument, emphasis is placed upon the relation between performance problems (dynamics, phrasing, rubato) and multi-level analysis (harmonic, structural, stylistic). In addition to private instruction for one ninety-minute period each week, the student will be required to present a one-hour recital and to provide either written or oral program notes.
Prerequisite: MUS 53 and permission of the instructor.
Distributive: ART

MUS 61 - Studies in Musical Performance: Woodwinds
Instructor: Boyer, Braude, Halloran, Polk, Zsoldos
(see details under MUS 60)
Prerequisite: MUS 54 and permission of the instructor.
Distributive: ART

MUS 62 - Studies in Musical Performance: Brass
Instructor: Carroll, Kennelly
(see details under MUS 60)
Prerequisite: MUS 55 and permission of the instructor.
Distributive: ART

MUS 63 - Studies in Musical Performance: Strings
Instructor: Cassidy, Doty, Dunlop, Ennis, Guey, Muratore
(see details under MUS 60)
Prerequisite: MUS 56 and permission of the instructor.
Distributive: ART
MUS 64 - Studies in Musical Performance: Voice
Instructor: Burkot, Mellinger
(see details under MUS 60)
Prerequisite: MUS 57 and permission of the instructor.
Distributive: ART

MUS 65 - Studies in Musical Performance: Percussion
Instructor: Garapic
(see details under MUS 60)
Prerequisite: MUS 58 and permission of the instructor.
Distributive: ART

MUS 70 - Perspectives in Music Performance
Instructor: Pinkas
This course combines the study of music with an intensive exposure to musical performance. Students attend concerts, examine works selected from the repertoire, and keep a journal of concert observations. Performance practices of various historical style periods are reviewed in their historical context, including such factors as the circumstances of composition, the place of the work within a composer's total output, and the contribution of individual works to the development of musical form and style.
Prerequisite: MUS 20.
Distributive: ART

MUS 71 - The History of Music in England
Instructor: Pinkas
A close examination of the circumstances in which music has been composed and performed in England from early times to the present. Course topics include the effects of ruling monarchs and changing religious affiliations on musical life, the rise of music societies, and the influence of music from Continental Europe such as opera and the Italian madrigal. Students will study works by Dunstable, Tallis, Dowland, Byrd, Purcell, Handel, Elgar, Walton, Britten, and Tippett.
Prerequisite: MUS 20.
Distributive: Dist:ART; WCult:W

MUS 74 - The History of Music in Central Europe
Instructor: Cheng
This course takes advantage of our study in Vienna to explore the sites and environs where many of the composers and performers we will study were born, worked and died. Reading and listening assignments will be augmented by day trips and overnight excursions to Salzburg, Prague and other locales. Local guest lecturers who are experts on various aspects of Central European musical and intellectual history will join us throughout the course.
Distributive: Dist:ART; WCult:W

MUS 80 - MUS 99

MUS 82 - Special Study in History, Musicology, Ethnomusicology
Distributive: ART.

MUS 83 - Special Study in Composition and Theory
Distributive: ART.

MUS 84 - Special Study in Performance
Distributive: ART.

MUS 86 - Other Special Studies

MUS 87 - Special Studies in Music Abroad (Individual Instruction on Music FSP)
MUS 87 may count as an elective but may not be used as a substitute for the Individual Instruction Program.
Distributive: ART

MUS 88 - Honors
The Honors Program provides an opportunity for work of greater scope and depth than the Music Department’s standard course offerings. Honors projects typically take the form of independent work that is undertaken over at least two terms, and supervised by one or more members of the music faculty. Students are awarded one course credit for successful completion of this course at the end of the second term of work. Students register for MUS-088 and receive a grade of “ON” (ongoing) at the end of the term. Students do not register for the subsequent term. A final grade will replace the “ON” at the end of the subsequent term at which time the coursework must be completed.

MUS 99 - Proseminar
Instructor: Beaudoin
In this advanced seminar for junior and senior music majors, students will apply the knowledge they have acquired throughout their Dartmouth education. Instructors may choose to organize the proseminar around a broad theme (e.g., music & gender, music & politics, etc.). We will welcome guest lectures by various music faculty and visiting experts. A supplemental component (trip or symposium outside normal class hours) will simultaneously fulfill the requirements of the Music Major Culminating Experience.
Native American and Indigenous Studies

Chair: N.B. Duthu

Professors C. G. Calloway (History and NAIS), N. B. Duthu (NAIS), M. B. Taylor (NAIS and English); Associate Professors: N. J. Reo (NAIS and Environmental Studies); Assistant Professor M. S. Crandall (NAIS); Senior Lecturer V. B. B. Palmer (NAIS); Lecturer, J. L. Powell (Hood Museum).

To view Native American Studies courses, click here (p. 550).

Native American and Indigenous Studies offers students the opportunity to pursue a program of study that will increase their understanding of the historical experiences, cultural traditions and innovations, and political aspirations of Indigenous peoples in the United States (including Alaska and Hawaii), Canada and other regions of the world. Students explore the intersection of Indigenous and European histories and systems of knowledge. Students will learn essential information about Indigenous ways of living, organizing societies, and understanding the world, and about their relations with Euro-American colonizing powers. They will learn to appreciate how the value systems of different cultures function and to understand the dynamics of cultural change. They will examine contact and conflict between Indigenous and non-Indigenous societies and will appreciate the unique status of Indigenous peoples in the United States, Canada, and other regions of the world.

Students who elect to take a major or minor in Native American and Indigenous Studies will take a number of core courses and will explore interdisciplinary approaches within the field. Courses in our department are open to all students. Indeed, the mission of the Department of Native American and Indigenous Studies depends upon attracting a varied student body who bring their own perspectives and build upon their individual experiences and understandings.

Major Requirements

Students pursue their own interests and develop an individual program, but they also take certain required courses, to ensure that they acquire a common body of substantive knowledge, gain exposure to crucial ways of critical thinking, and explore several essential approaches to Native American and Indigenous Studies.

In order to qualify for a major in Native American and Indigenous Studies, a student must take ten courses, to be selected as follows:

One Prerequisite:
NAS 8: Perspectives in Native American Studies

One Class in Literature and Languages:
NAS 30.xx, NAS 31, NAS 32, NAS 34, NAS 35, NAS 40, NAS 41, or NAS 47

One Class in History and Culture:
NAS 10, NAS 14, NAS 15, NAS 16, NAS 18, NAS 19, NAS 42, NAS 51, or NAS 55

One Class in Governance and Sovereignty:
NAS 25, NAS 36, NAS 44, or NAS 50

A Culminating Experience course:
NAS 80 or 81

Five Electives:
NAS 11, NAS 13, NAS 14, NAS 15, NAS 18, NAS 19, NAS 22, NAS 25, NAS 28
NAS 30, NAS 31, NAS 32, NAS 34, NAS 35, NAS 36, NAS 38, NAS 39, NAS 40, NAS 41, NAS 42, NAS 45, NAS 47, NAS 48, NAS 49, NAS 50, NAS 51, NAS 55, or NAS 56

NAS 80

NAS 85 (permission required)

NAS 86 (permission required)

NAS 87 (see Honors Program)

All required courses and most electives are usually offered on an annual basis. However, students should consult the Program for current course offerings and special course offerings for each term.

NAS Modified Major

We allow students to earn a modified major in NAS (i.e. NAS modified with another department or program’s courses). We follow the basic model of the college in requiring 6 NAS courses coupled with 4 courses from another other department or program that, all combined, represent a coherent whole. Furthermore, there will always be one course prerequisite (NAS 8) in addition to the 6 required courses.

Students must submit a written statement to the chair of NAS and to the Registrar describing their rational for the modified major as a unified, coherent whole, and detailing the relevance of each planned course to the overall program of study.

Students should also consult the college’s general guidelines and procedures for modified majors:
MINOR REQUIREMENTS

In order to qualify for a minor in Native American Studies, a student must successfully complete six courses in the Program, as follows:

One Prerequisite:

Native American Studies 8: Perspectives in Native American Studies

Four Elective Courses

A Culminating Experience course:

Native American Studies 81

NAS - Native American Studies Courses

To view Native American Studies requirements, click here (p. 549).

NAS 7 - First-Year Seminars in Native American Studies

First Year Seminar: TBA

NAS 8 - Perspectives in Native American Studies

Instructor: Palmer

The growing field of Native American Studies is inherently interdisciplinary. This course gives an overview of the relevant intellectual and cultural questions of tribal expression, identity, traditional thought, continuity, and sovereignty. Using readings from the areas of literature, philosophy, visual arts, anthropology, philosophy of history, and cultural and political discourse, we will examine how their discourses are used in the construction of tribal people as Other, and how these discourses either promote or inhibit the ongoing project of colonialism in indigenous communities and lives. Open to all classes.

Distributive: Dist:SOC; WCult:CI

NAS 11 - Ancient Native Americans

Instructor: McLeester

This course provides an introduction to the ancient societies of North America. The course examines the populating of the Americas and related controversies. We then concentrate on the subsequent development of diverse pre-Columbian societies that included hunter-gatherer bands in the Great Basin, the Arctic, and the sub-Arctic; Northwest Coast chiefdoms; farmers of the Southwest, such as Chaco Canyon and the desert Hohokam; and the mound-builders of the Eastern Woodlands. (ARCH)

Cross-Listed as: ANTH 11

Distributive: Dist:SOC; WCult:NW

NAS 13 - Feast and Forest

Instructor: Reo

This class explores the interrelated social, cultural and political dimensions of Indigenous food systems, notions of kinship, and associated land-based practices. Work in this class will link the politics of Indigenous land and resource rights with the sociality of farming, hunting, gathering, feasting and other food traditions. We will contemplate and engage various elements of Indigenous food systems and health from subsistence food traditions to government commodity foods to urban Native American food movements. Food provides a space where many concepts from Native American Studies converge including food sovereignty, interspecies thinking, land-language linkages, health disparities, Indigenous environmental ethics and Indigenous community resurgence. In this class, we will focus on experiential forms of learning and our time will be organized as weekly field excursions where we learn directly from Indigenous communities, directly from the land, and learn by doing. Nine weeks of hands-on activities will culminate by hosting a fall feast on campus.

Distributive: Dist:TMV; WCult:CI

NAS 14 - The Invasion of America: American Indian History Pre-Contact to 1800

Instructor: Calloway

This course surveys Native American history from pre-contact times to 1800. It offers a chronological overview of major trends and developments, supplemented by case studies and readings that illustrate key issues and events. The overall context of the course is the conflict generated by the colonial agendas of various European nations and the early republic, but the primary focus will be the historical experiences of the diverse Indian peoples of North America in the wake of European invasion and their struggles to survive in the new world that invasion and created.

Cross-Listed as: HIST 14

Distributive: Dist:SOC; WCult:NW

NAS 15 - American Indians and American Expansion: 1800 to 1924

Instructor: Calloway

This course surveys Native American history from c. 1800 to the Indian Citizenship Act in 1924. The overall context
of the course is the expansion of the U.S. and the Indian policies adopted by the U.S. government, but the primary focus is the historical experience of Indian peoples and their struggles to retain their cultures and autonomy while adapting to great changes in the conditions of their lives. Open to all classes.

Cross-Listed as: HIST 015
Distributive: Dist: SOC; WCult: NW

NAS 16 - 20th Century Native American History

Serving as the final course in a three-quarter survey of Native American history, this class reviews Native history from the late 19th century to the present, focusing on the interplay between large institutions and structures—such as federal and state governments, or the US legal system—and the lived, local experience of tribal communities. The major themes followed throughout the course of the term include: historical narrative (and what it justifies or explains), place and space (how local and national entities define territories), and indigeneity (indigenous identity).

Cross-Listed as: HIST 039
Distributive: Dist: SOC; WCult: NW

NAS 18 - Indigenous Environmental Studies

Instructor: Reo

In this course, we examine Indigenous worldviews, environmental values and everyday life through the lens of environmental issues facing Indigenous nations and communities. Our geographic focus is on North America and the Pacific, with limited examples from other places and peoples globally. Through course materials, discussions, and assignments, students gain exposure to varied Indigenous perspectives and Indigenous knowledges expressed and enacted by scholars, Elders, community people, political leaders, and activists. Key concepts in Indigenous environmental studies will be discussed including Indigenous rights and responsibilities, Indigenous environmental stewardship, energy and development, land-language linkages, tribal sovereignty and self-determination, empowerment and resurgence.

Prerequisite: NAS 8 or NAS 10 or NAS 25 and ENVS 2; or permission of the instructor
Cross-Listed as: ENVS 018
Distributive: Dist: TMV; WCult: NW

NAS 19 - Encountering Forests

Instructor: Reo

Why do people care about forests? How do people become knowledgeable about a landscape and how do they use theoretical and place-based, practical knowledge about forests? In this course, we attempt to see forests from different cultural and professional lenses including those of Abenaki resource practitioners and natural resource managers. We look at the ways different types of information and different cultural perspectives influence ecological restoration, conservation and land use decisions. Open to all classes.

Prerequisite: NAS 8 or NAS 10 or NAS 25 and ENVS 2; or permission of the instructor
Cross-Listed as: ENVS 19

NAS 22 - Native American Lives

Instructor: Palmer

In the past, American Indian history and experience have usually been taught through the lens of the dominant culture, while ignoring the accounts that Indian people have presented in their own words. This course will examine some key issues in Native American history and culture reflected in the biographies and autobiographies of individual American Indians. Their life stories, some contemporary and some historical, will help us understand the forces affecting the world of Native people, and how they shaped their own lives in response. Many early (auto)biographies are "as-told-to" narratives. Consequently, as a point of methodology, we will take time to consider the role, motives, and the effect of the amanuensis (the recorder of an oral narrative) on the story, and as a non-Native mediator of Native experience. Open to all classes.

Distributive: Dist: SOC; WCult: CI

NAS 25 - Indian Country Today

Instructor: Duthu

This course introduces students to Indian Country by way of exploring contemporary issues of importance to American Indians. Students will begin by examining briefly the concept of “tribal sovereignty” and the role it has, and continues to have, in driving tribal politics. Students will then broaden their understanding of Indian Country by exploring practical issues such as: American Indian political activism, repatriation of sacred objects and remains, American Indian water rights, hunting and fishing rights, gaming in Indian Country, education, and contemporary American Indian arts. Open to all classes.

Distributive: Dist: SOC; WCult: NW

NAS 28 - Native Americans and Sports

Instructor: Crandall

In this course, students will explore, through intensive research, writing, and discussion, important contemporary, historical, and cultural issues related to Native Americans and sports. From time immemorial, sports have been many different things to the Indigenous peoples of North America: sacred/religious activity, entertainment, a form of warfare, an opportunity for education/social mobility, and
a vehicle for fame/celebrity. By learning about the deep connections Native Americans have to five sports—lacrosse, running, football, basketball, and “alternative” sports (skateboarding, golf, and mixed martial arts)—students will gain a more profound understanding of the Native American experience in North America. Students will gain a greater knowledge of the importance of sports for Native Americans across wide geographies and chronologies. Students will also learn how Native Americans’ relationship to sports has changed over time. Most importantly, students will engage in a significant research project on a topic of their choosing related to Native Americans and sports.

Distributive: Dist:SOC; WCult:NW

NAS 30 - Special Topics in Native American Studies

NAS 30.15 - Contemporary Native American Art
Instructor: Evans
This course will focus on contemporary Native American artists and the variety of artistic practices that make contemporary Native American art so diverse.
Distributive: Dist:ART; WCult:CI

NAS 30.16 - Re-Mapping Tribal Narratives
Instructor: Henry
This course will review works of American Indian Literature, and selected themes associated with American Indian Studies, as interpretive “storyscapes” to be re-read, re-mapped, and re-sourced with the use of digital technology tools such as ArcGIS, QGIS, or Storymap. To that end, students will be required to produce interpretive digital maps and/or graphs from a variety of textual, graphic, narrative, descriptive and interpretive media, and to imaginatively map patterns, themes, critical terms and cultural motifs related to sites of representation in American Indian Literature and American Indian Studies.
Distributive: Dist:LIT; WCult:NW

NAS 30.19 - Indigistory-Dartmouth and Beyond: Digital Storytelling in American Indian Communities and Contexts
Instructor: Henry
Over the past decade American Indian communities and collaborative partners from an array of tribal organizations and public institutions have created a body of digital stories, reflecting individual and community concerns on a breadth of matters of importance to contemporary tribes. In many cases those stories address contemporary community issues, of language preservation, the importance of oral tradition, health and wellness awareness and treatment, addressing historical trauma and attending to tribal justice. In other cases, such digital stories have served as educational tools and as means for offering qualitative assessment of research driven programs in tribal communities. In still other cases, tribally generated digital stories have addressed issues of kinship and community belonging, by referring back to roles of individual tribal members in events of historical importance to the tribal community.
Distributive: Dist:LIT; WCult:NW

NAS 30.20 - The World Turned Upside Down: An Indigenous History of the Andes after the Spanish Invasion
Instructor: Mikecz
This course will explore the tension between insiders and outsiders, colonizers and the colonized, Westerners and Natives. Students will examine not only what these tensions meant for the people of the Andes – in the countries of Peru, Bolivia, and Ecuador (and to a lesser extent Chile and Colombia) - but also in what ways similar phenomena occurred in North America and other parts of the world. Among other things, students will investigate differences between insider and outsider accounts, primary and secondary sources, history and archaeology, etc. - while acknowledging the strengths and limitations of these different sources and approaches.
Cross-Listed as: LACS 30.14
Distributive: Dist:SOC; WCult:NW

NAS 30.21 - Native American Art and Material Culture
Instructor: Powell
This course examines North American Indigenous art and material culture through interdisciplinary perspectives. Throughout the course students will gain a greater understanding of the role that the arts play in the social, cultural, economic and political lives of Indigenous peoples. This course envisions art not as something that merely reflects experience, but as a tool that is used to create new forms for imagining and shaping the world. During the term, we will examine how artists, novelists, historians, anthropologists, art historians and others have contributed to an interdisciplinary dialogue about Native American art and material culture.
Distributive: Dist:ART; WCult:NW

NAS 30.22 - Placing History: A Exploration of Local History through Archives, Fieldwork, & Digital Maps
Instructor: Mikecz
This course will explore two related questions: how can spatial and place-based thinking benefit historical scholarship? More specifically, how can we combine fieldwork, archival research, and the use of digital tools to
help us recover hidden aspects of local history? To answer these questions, this course will include three parts. First, a seminar component will allow students to think global and act local. Students will analyze and discuss spatial history and place-based history projects from around the globe while also evaluating primary historical sources on local and regional history. Second, a fieldwork component will allow students to visit local archives and the places they are studying and examine the way history has alternatively been inscribed in or erased from the landscape. Third, a lab component will offer students the chance to learn new skills using Geographic Information Systems (GIS) software to map local history over space and time.

Cross-Listed as: HIST 90.13
Distributive: Dist:SOC; WCult:NW

NAS 30.23 - Making Kin with Machines: Indigenous Technologies and Digital Media

This course draws from Indigenous perspectives to challenge contemporary Western understandings of advanced technology and offer Indigenous futurities and futurisms that connect past, present and future. The texts and digital media presented here blur boundaries between artificial/natural; online/offline, human/nonhuman or other-than-human; and sentient/inert. The course title Making Kin with Machines engages "with" in two ways. The first is how we build connections and relations, or sever them, with nonhuman technologies such as smartphones, algorhythms, and AI . . . and how they connect, monitor, and affect us. The second is how we maintain, build, and/or disrupt human relations in the current pandemic through technology. This class will ask the following questions: what does it mean to be in-relation with human and nonhuman entities? How do genealogies and histories of connection and disruption shape not only what we do now, but the technologies we build and design in the future? Finally, this class asks us to consider what we mean by being a good relation - to what and to whom? - and what Indigenous conceptions of advanced technology and futures-thinking can offer.

Distributive: Dist:TAS; WCult:NW

NAS 31 - Indians in American Literature

Instructor: Taylor

Indians are uncanny absences in the American narrative and yet persistent fixtures in our national literature from its origins to the present day. This course examines the pervasive appearance of the seductive, strange, and evolving Indian figure in works by prominent American authors such as Nathaniel Hawthorne, Herman Melville, James Fenimore Cooper, William Faulkner, Ernest Hemingway, Willa Cather, and Toni Morrison. We will explore the shifting and ideological role of the Indian as tragic emblem, savage defender, spiritual ally, and modern foil. We will explore the complicated ways that the literary Indian has served to both authenticate and trouble the nation's founding narratives and desires, and more recently, to stand as a mythical antidote to postmodern crises of value, economics, ecology, and spirituality. We will consider the appeal of such tropes in particular regional and historical contexts, such as the Reconstruction South, as well as racial or ethnic ones, such as the African American appropriation of Indian resistance, nobility, and genealogies.

Cross-Listed as: ENGL 53.44
Distributive: Dist:LIT; WCult:W

NAS 32 - Indian Killers: Murder and Mystery in Native American Literature and Film

Instructor: Taylor

This course explores the abundant crime fiction and murder mysteries by contemporary Native American artists. These works imagine a democratized space where colonial violence is avenged, American law is malleable, and intellect triumphs over racism. While most critics applaud such decolonizing efforts, we will ask more difficult questions: do these sensational narratives do real cultural work? Do they suggest that colonial violence begets only more violence? And in the end, who are its true victims? Open to all classes.

Cross-Listed as: ENGL 53.20

NAS 34 - Native American Oral Traditional Literatures

Instructor: Palmer

Native American oral tradition constitutes a rich and complex dimension of the American literary heritage. This course will examine a range of oral genres from several time periods and tribal sources. Oral traditions and the textual sources into which they are anthologized provide valuable insights into the nature of human creativity. They are also full of unique hermentical challenges. This course will include some contemporary theoretical approaches to orality and the metaphysics of the voice to unpack some of these questions.

Cross-Listed as: ENGL 55.14
Distributive: Dist:LIT; WCult:NW

NAS 35 - Native American Literature

Instructor: Taylor

Published Native American writing has always incorporated a cross-cultural perspective that mediates among traditions. The novels, short stories, and essays that constitute the Native American contribution to the American literary tradition reveal the literary potential of diverse aesthetic traditions. This course will study representative authors with particular emphasis on contemporary writers. Open to all classes.
NAS 36 - Indigenous Nationalism: Native Rights and Sovereignty

This course focuses on the legal and political relationship between the indigenous peoples of Canada, the United States, Australia, and New Zealand and their respective colonial governments. Students will examine contemporary indigenous demands for self-government, especially territorial claims, within the context of the legislative and political practices of their colonial governments. The course will begin with an examination of the notion of Aboriginal self-government in Canada and develop it in light of the policy recommendations found in the recent report of the Royal Commission on Aboriginal Peoples (1996). Using the Canadian experience as a benchmark, students will then compare these developments to indigenous peoples' experiences in the United States, Australia and New Zealand. An important theme of the course will be to develop an international approach to the issue of indigenous rights and to explore how colonial governments are responding to indigenous demands for justice. Not open to first-year students without permission of instructor.

Cross-Listed as: GOVT 60.05
Distributive: Dist:INT or SOC; WCult:NW

NAS 38 - Lewis and Clark in Indian Country

Instructor: Calloway

In 1804-06, Meriwether Lewis and William Clark completed a remarkable odyssey, from St. Louis to the Pacific, and back. They wrote more than one million words, describing the country, and paid particular attention to the Indian nations they met. This class will use the abridged edition of the journals to examine the context, experiences, and repercussions of an expedition that initiated journeys of discovery for both the young United States and the Native peoples of the American West.

Cross-Listed as: HIST 38.02
Distributive: Dist:SOC; WCult:W

NAS 40 - Language Revitalization

Instructor: TBA

There is currently a measurable reduction in the amount of linguistic diversity around the world as many languages become moribund or cease to be spoken. With greater awareness of language endangerment and attrition, there have been counteracting efforts to maintain and revive the use of many of these languages. In this course we examine the phenomena of language endangerment and language revitalization. We will evaluate the socio-historical reasons for language shift, the rationale for language revitalization and the relative degrees of success in different revitalization programs. There will be a focus on the languages of North America.

Cross-Listed as: LING 11.06
Distributive: Dist:LIT; WCult:CI

NAS 41 - Native American Literature and the Law

Instructor: Duthu

The Acoma Pueblo poet Simon Ortiz once noted that "because of the insistence to keep telling and creating stories, Indian life continues, and it is this resistance against loss that has made life possible." The regenerative and reaffirming force of tribal stories has been most severely tested when confronted by the overwhelming and often destructive power of federal law in Indian affairs. The complex matrix of legal and political relations between Indian tribes and the federal government thus serves as a singularly important arena to examine contested notions of national identity, sovereignty, relationships to lands and people, and concepts of justice. Students will read literary texts produced by Native authors and legal texts involving Indian tribes in an effort to understand how the Native production of stories contributes to the persistence of tribalism in contemporary Native America. Open to all classes.

Distributive: Dist:LIT; WCult:CI

NAS 42 - Gender Topics in Native American Life

Instructor: Palmer

This course will address a range of topics concerning gender that are of particular significance to indigenous communities. These topics will be considered from historical, political, cultural and social perspectives. In the context of this class, the term “indigenous” is a category that includes tribal nations of the United States including Hawaii, the First Nations of Canada, and the indigenous people of Australia and New Zealand. The material is presented with particular concern for the diversity of indigenous groups and the variety of their own experiences and autochthony. We will explore their responses to misconceptions of tribal gender roles and identities projected upon Native people by the agents and institutions of settler colonialism. This approach opens a broader discussion about the many actions of indigenous communities to deconstruct and decolonize gender categories that are alien to the continuity, integrity, and vitality of their own traditions. The interdisciplinary approach of this course will engage texts from philosophy, literature, semiotics, history, and policy, as well as gender studies from various socio-cultural perspectives.

Cross-Listed as: WGSS 40.01
Distributive: Dist:SOC; WCult:CI
NAS 47 - Contemporary Native American Poetry

Muscogee poet, Joy Harjo has stated that Native Peoples are "...still dealing with a holocaust of outrageous proportion in these lands...Many of us...are using the 'enemy language' with which to tell our truths, to sing, to remember ourselves during these troubled times." This course examines the ways contemporary American Indian and other indigenous poets employ literary gestures of resistance and creativity to outlive the ongoing effects of colonialism. We explore how their poetry contributes to the reclamation and continuity of tribal memory and the regeneration of tribal traditions and communities. Our course includes lyric voices from the reservation, from the city, and from indigenous spaces in diasporic and global contexts. We will examine the combined influences that oral tradition, ritual life, and tribal values have on these contemporary poets. The indigenous poetic voice occupies a unique position in contemporary American poetry, but also in the discourse of settler colonialism. This course traces how the themes of these poetic voices bring forward images of past and contemporary experience, to craft a poetic tradition that is distinctly indigenous. Open to all classes.

Distributive: Dist:LIT; WCult:CI

NAS 50 - Federal Indian Law

Instructor: Duthu

This course will focus on the constitutional, statutory and jurisprudential rules of law that make up the field of Federal Indian Law. Attention will be given to the historical framework from which the rules were derived. After outlining the respective sources and limits of federal, tribal and state political authority in Indian Country, the course will turn to a consideration of subject-specific areas of law, including criminal justice, economic development, environmental and natural resource regulation, hunting and fishing rights, Indian child welfare and preservation of religious and cultural rights. Open to all classes.

Cross-Listed as: GOVT 69
Distributive: Dist:SOC; WCult:NW

NAS 51 - Pan-Indianism in American History

Instructor: Crandall

This course provides the history of pan-Indian movements in Indigenous North America from 1680 to the present. In the current era of self-determination, tribal sovereignty, and Indigenous nationhood, we perhaps sometimes forget that pan-Indian movements have played a significant part in the history and experiences of Native peoples of North America. We will explore the many ways in which Native peoples have aligned themselves with other tribal nations religious, military, educational, economic, and environmental movements, in the process cutting across linguistic, cultural, religious, and national lines. Indigenous North Americans have deployed pan-Indianism as a strategy to confront both international such as colonialism and the struggles for control of contested Borderlands, and more regional and localized forces. Taken in its entirety, understanding pan-Indianism is essential to understanding the history of Native North America.

Cross-Listed as: HIST 38.03
Distributive: Dist:SOC; WCult:NW

NAS 55 - The First President and the First Americans: The Indian World of George Washington

Instructor: Calloway

Much of the story we know about George Washington and the birth of the nation takes place in the East--Mount Vernon, Philadelphia, Yorktown—but Washington and the emerging nation also faced west, to Indian country. Washington's world and his life intersected constantly with Native America. He spent much of his life surveying and speculating in Indian lands. He got a crash course in Indian diplomacy at age twenty-one and his mishandling of Indian allies sparked the French and Indian War. He participated in two expeditions against Fort Duquesne (now Pittsburgh) and defended the Virginia frontier against Indian attacks. His break with Britain stemmed in large part from Crown policy that threatened his investments in Indian land. As commander of the Continental Army and then President of the United States, he dispatched armies into Indian country.

Cross-Listed as: HIST 38.01
Distributive: Dist:SOC; WCult:NW

NAS 56 - Indigenous North American Borderlands

Instructor: Crandall

This course focuses on the histories of Indigenous peoples in the borderlands of North America across time in both geographic and thematic contexts. Viewing Native America as an incredibly complex series of borderlands is a useful interpretive model for better understanding the history of Native peoples. Lectures, readings, and class discussion will focus on elements such as cultural contact, conquest and colonialism, missionization, citizenship, gender, and nation. While exploring these various themes, we will touch on some familiar territory such as frontiers and middle grounds, but we will also question our own personal, and often, region-based expertise in order to unpack a more nuanced view of Indigenous borderlands and their significance.

Cross-Listed as: HIST 38.04
Distributive: Dist:INT or SOC; WCult:NW

NAS 80 - Advanced Seminars in Native American Studies
NAS 80.01 - Bear Clan Texts
Instructor: Palmer
Wherever ursidae carnivora finds a natural habitat, the indigenous peoples of these geographies honor and acknowledge the Bear in particular ways that are central to individual and cultural expression. This course engages various texts that feature Bear imagery in traditional stories, songs, and ritual representations—all vehicles that transmit both sacred and practical knowledge. We use readings in mythopoetics, performance narratives, nature writing, some early ethnographic accounts and recordings, environmental literature, and the contemporary writing of several Native American authors. Discussion about the tribal significance of the Bear is a means to examine ontological distinctions between human self and animal being, and the constructions of human consciousness within the natural world. We also discuss how concepts of "wildness" and "wilderness," and ideas about "control" and "freedom" are expressed within imaginative and geographical spaces.
Prerequisite: Open to Juniors and Seniors, and to others with written permission of the instructor.
Distributive: Dist:LIT; WCult:NW

NAS 81.03 - Pen and Ink Witchcraft: Native American History Through Treaties
Instructor: Calloway
Treaties enabled European colonists to establish a foothold in North America and charted the territorial expansion of the United States. Indian people were often deceived by treaties and they referred to them as "pen and ink witchcraft." But the hundreds of Indian treaties generated unique records of cultural encounter. Each treaty had its own story and cast of characters. Working with the records of key treaties, this seminar will examine the protocols of Indian diplomacy, the maneuverings and agendas of the different participants, as well as the outcomes and legacies of Indian treaties. Open to Juniors and Seniors with written permission of the instructor.
Cross-Listed as: HIST 96.08
Distributive: Dist:INT or TMV; WCult:NW

NAS 81.04 - Land, Love & Kinship: A Seminar on Indigenous Environmental Knowledges
Instructor: Reo
Taking a global perspective, this course will discuss the roles that Indigenous knowledges play in the contemporary world, paying particular attention to how Indigenous knowledge holders enact, tend, and build their environmental knowledges through active and moral relationships with land, water, plants, animals, and other beings. We will examine how key concepts like kinship and relational accountability have developed within Indigenous studies as ways of understanding the relational, embodied, and spiritual nature of Indigenous environmental knowledge.
Cross-Listed as: ENVS 085
Distributive: Dist:TMV

NAS 85 - Independent Study in Native American Studies
Instructor: The Chair
This course is designed for students who wish to pursue in depth some subject in Native American Studies not currently offered at the College. Students may not register for independent study until they have discussed their topic with the instructor, and have a course permission card signed by the Chair. Please consult the rules and regulations for NAS 85 in the Program office.
Prerequisite: at least two Native American Studies courses

NAS 86 - Independent Research in Native American Studies
Instructor: The Chair
This course is designed for a student who wishes to research a particular problem in greater depth than is possible in an Independent Study course (NAS 085). The Chair must give approval, and a faculty advisor will be assigned to each student to supervise the work through regular class meetings. Usually a formal paper embodying the results of the research is required. A student wishing to enroll in this course must first discuss the topic with a faculty member, who will serve as research advisor, and then submit a formal research proposal to the Program.
Students are awarded one course credit for successful completion of this course upon completion of NAS 087. Students register for NAS 086 and receive a grade of "ON" (ongoing) at the end of the term. Students then register for NAS 087 the subsequent term to complete the coursework. A final grade will replace the “ON” in NAS 086 upon completion of NAS 087.
Prerequisite: at least three Native American Studies courses

NAS 87 - Native American Studies Honors
Instructor: The Chair
This course is open only to majors and double majors by arrangement with the Chair. The course requires the completion of a formal thesis. Please consult the rules for this course in the Native American Studies Program office.
Students are awarded one course credit for successful completion of this course. Students who have registered for NAS 086 register for NAS 087 to complete the coursework. A final grade will replace the “ON” for NAS
I. MAJORS AND THE MINOR OPEN TO THE CLASSES OF 2023 AND EARLIER

Neuroscience

MAJOR IN NEUROSCIENCE

Neuroscience is a broad interdisciplinary field requiring a rigorous preparation in basic science. Students in this discipline are expected to understand basic principles of neuroscience, cell biology and statistics. They are also expected to gain competency in calculus, chemistry, physics or computer science. These prerequisites are fundamental to understanding contemporary experimental methods in neuroscience.

Required courses are intended to provide a strong background for the broad spectrum of neuroscience, which spans molecular, cellular, systems, behavioral, and cognitive components. Then, students are expected to choose a set of electives that will lead them towards a broad understanding of the neuroscience field, as well as techniques used by neuroscientists to study the brain. With this background students are encouraged to engage in a research project with a specific emphasis in neuroscience. Many of the elective courses are offered through the Department of Psychological and Brain Sciences, but courses can be taken through other departments depending upon the area of specialization. For example electives in Computer Science and Mathematics could be selected that emphasize computational methods. Alternatively, a student might choose electives, including advanced seminars or independent research, that emphasize cell or molecular biology. A list of approved electives is available on the PBS website, and with permission of the Neuroscience Steering Committee, other courses that are appropriate given the student's area of specialization may be taken for elective credit.

A central mission of the major is to encourage students to work closely with sponsoring faculty to learn experimental methods in neuroscience. Students fulfill their culminating experience by either conducting research in neuroscience under the direction of a faculty advisor or taking an upper level seminar with an emphasis in neuroscience. Faculty in the Department of Psychological and Brain Sciences provide a core resource for research opportunities for students; however, neuroscience research opportunities for undergraduate majors also involve faculty in the School of Medicine, the Thayer Engineering School, and other departments within the College of Arts and Sciences, subject to approval by the Neuroscience Steering Committee.

Potential majors are encouraged to begin planning their course of study by the end of their first year. Information concerning course requirements, transfer credit, checklists, along with a worksheet to help in planning your schedule can be viewed on the PBS website. Sign-up for courses requiring permission is also handled through the PBS department website starting in May of the prior academic year in which the course will be taught.

MINOR IN NEUROSCIENCE

The Minor in Neuroscience is sponsored by the Department of Psychological and Brain Sciences. It is intended to provide formal recognition for students who have concentrated some of their academic work in the interdisciplinary area of Neuroscience. The minor requires six courses: one prerequisite, two required courses, and three electives. Many of the courses may require permission of the instructor in addition to prerequisite courses.

HONORS PROGRAM

Qualified students majoring in Neuroscience have the opportunity to participate in an Honors Program that provides individualized advanced instruction and research experience in neuroscience.

Individuals may apply for honors work as early as the spring term of their junior year, but not later than the end of the second week of fall term of their senior year. Eligibility for honors is a 3.30 average in the major and a 3.0 average overall. Students interested in doing honors work should consult the Department web page for additional information.

To begin thesis work and to enroll in PSYC 91:

1. Students must have a minimum grade point average (GPA) of 3.30 in the major and 3.00 overall and have successfully completed PSYC 6 and PSYC 10 or BIOL 29.
2. Students must identify a two-person thesis committee (one of which is the research advisor) that will evaluate the thesis. The thesis committee must include a regular faculty member of the Department of Psychological and Brain Sciences (PBS). The other individual must have an active academic appointment at Dartmouth. The thesis committee must be approved by the Chair of the Neuroscience Steering Committee.
3. Intent to pursue honors research must be declared by the end of the second week of the fall term of their senior year. A completed Permission Checklist for Enrolling in Neuroscience Thesis Research (PSYC...
should be submitted to the PBS Department office (see Department website for form). The Neuroscience Steering Committee will evaluate and approve the application. Instructor Permission to enroll in PSYC 91 will then be granted. To be awarded Honors at graduation the student must fulfill the following requirements:

1. Satisfactorily fulfill all course requirements of the major and maintain at least a 3.30 major GPA. Complete two terms of PSYC 91 (PSYC 91.01 and 91.02).

2. By the last day of the fifth week of the Winter term preceding the completion of the thesis, the student must submit a prospectus of the thesis work to the Chair of the Neuroscience Steering Committee. The prospectus should include a brief description of the rationale for the research, methods being used, analyses to be employed, and implications of the expected results.

3. An acceptable thesis must be written based upon at least two terms of laboratory or field research that is carried out under the auspices of PSYC 91 and is under the supervision of a PBS department faculty member. The thesis will entail an independent and individual project. Furthermore, the thesis must be read by, orally defended to, and approved by the thesis committee. The defense must be attended by at least one member of the Neuroscience Steering Committee. The thesis committee will make a recommendation to the Neuroscience Steering Committee regarding the potential awarding of honors.

4. Students will present their research to department faculty and interested others during the latter part of the Spring term of their senior year.

The Major

1. Prerequisites:
   a. One from: PHIL 1, PHIL 4, PHIL 5, PHIL 8, PHIL 9, and PHIL 10
   b. PHIL 3 or PHIL 6

2. Requirements: Eight additional philosophy courses, at least seven of which are beyond the introductory level (i.e., four courses numbered PHIL 11 or higher), including:
   a. Two from PHIL 11, PHIL 12, PHIL 13, PHIL 16, and PHIL 19
   b. One advanced seminar in Philosophy, PHIL 50
   c. One culminating experience seminar in Philosophy, PHIL 80

The Modified Major

Modified major proposals are approved only in rare cases. Students are required to submit their modified major proposals for consideration before the seventh week of spring term of their junior year, since the department may request revisions.

1. Prerequisites:
   a. One from: PHIL 1, PHIL 4, PHIL 5, PHIL 8, PHIL 9, and PHIL 10
   b. PHIL 3 or PHIL 6

2. Requirements:
   Six philosophy courses beyond the introductory level (i.e., four courses numbered PHIL 11 or higher), including:
   a. Two from PHIL 11, PHIL 12, PHIL 13, PHIL 16, and PHIL 19
   b. One advanced seminar in Philosophy, PHIL 50
   c. One culminating experience seminar in Philosophy, PHIL 80

Plus four courses beyond prerequisites in one, or more than one, field outside of the Philosophy Department. The four courses must contribute to a reasonably unified and connected program of study and must be approved in writing by the Chair of the Department of Philosophy.

The Minor in Philosophy for Class Years 2023 and Later

(Class Years 2022 and Earlier should review regulations in the archived ORC of the year they matriculated).

1. Prerequisites:
   a. One course from: PHIL 1, PHIL 3, PHIL 4, PHIL 5, PHIL 6, PHIL 8, PHIL 9, and PHIL 10

2. Requirements: Five additional philosophy courses, at least four of which are beyond the introductory level (i.e., four courses numbered PHIL 11 or higher), including:
   a. One advanced seminar in Philosophy, PHIL 50

Philosophy

Chair: Amie Thomasson

To view Philosophy courses, click here (p. 560).

For up-to-date Philosophy course schedules, topics course descriptions, syllabi, and Philosophy event listings, go to the Philosophy Department website, click here.
b. One culminating experience seminar in Philosophy, PHIL 80

Transfer Credit
At most, two transfer credits may be counted toward the major, modified major, or minor; subject to approval by the Chair and the Registrar. Transfer credit cannot be used to satisfy the advanced topics and culminating experience seminar requirements.

Foreign Study
The Department of Philosophy offers a biennial study abroad program in fall term (of even-numbered years) at the University of Edinburgh, Scotland. While there, students will take a course in philosophy taught by a Dartmouth faculty member (PHIL 50). In addition, each student takes two university courses (PHIL 60, PHIL 61). Students will receive at most three course credits in this term. Students participating in the program must have completed two courses in philosophy prior to their participation, but not necessarily prior to their application for admission to the program. Preference will be given, however, to those students who have completed more philosophy courses. Application for admission to the program should be made during the fall term prior to the contemplated term in Edinburgh. There will be an opportunity for eligible students to participate in the Junior Honors Seminar while in Edinburgh.

Philosophy Honors Program
The Honors Program is designed for qualified students interested in doing intensive and individualized work in philosophy. Only those students who have successfully completed the Honors Program are eligible to receive major standings of Honors or High Honors.

The program is divided into three stages: the Junior Honors Seminar, preparation and submission of a thesis proposal, and thesis writing. All students who register for the Philosophy Major and who expect to have the necessary cumulative averages (3.50 in Philosophy and 3.33 overall) are invited to join the Junior Honors Seminars. In order to be accepted for thesis writing, a student must successfully complete a Junior Honors Seminar, maintain or attain by the end of the junior year the required averages, and have a thesis proposal approved by the Philosophy Department by the end of the seventh week of spring term in the junior year.

Junior Honors Seminars. Honors students are required to complete a Junior Honors Seminar by the end of the spring term of their junior year and prior to submission of a thesis proposal for departmental approval. These small, not-for-credit seminars meet four or five times per term. Students engage in independent research and writing, discuss their research with participants in the seminar, and produce a sample senior thesis proposal. The proposal produced need not be the proposal ultimately submitted to the department.

Students may take the seminar in any or all terms of their junior year. In spring term, the junior honors seminar ends in the sixth week, so students have time to revise any proposals for final submission to the department (see below).

Preparation and Submission of Thesis Proposal. During the junior year, students should consult with faculty members who might serve as advisors in the preparation and submission of a thesis proposal. Senior thesis proposals must be submitted to the Chair of the department by the end of the seventh week of spring term in the junior year. These proposals may be the result of work in the Junior Honors Seminar, but they may also be on a different topic, or significantly modified versions of the junior honors work. Students are strongly encouraged to complete and to submit their proposals before the spring term deadline, since the department may ask for modifications before allowing students to proceed with thesis writing. All proposals will be approved or denied by the Philosophy Department before the start of fall term in the senior year, and typically soon after they are submitted. Once proposals are approved by the Philosophy Department, the Chair of the department appoints a thesis supervisor for each student. Typically, this will be the faculty member with whom the student has been working to produce a proposal. In some cases, however, another supervisor may be appointed, especially if a single faculty member has been in consultation with multiple students.

Thesis Writing. Students writing a senior thesis are strongly encouraged to be in residence for the entirety of their senior year. Students writing theses are enrolled in PHIL 89 for the fall term and PHIL 90 for the winter term of their senior year. Only one term of the Honors Program may count towards satisfying the major requirements. In extraordinary cases, a student may be permitted to write a winter-spring or fall-spring thesis. In such cases, students are expected to consult with the Chair of the department during the junior year and to request special accommodations when submitting their senior thesis proposals.

Thesis students and their supervisors work together to prepare a research and writing plan, and meet regularly throughout the fall and winter terms. Thesis writers also attend a Senior Honors Seminar two times in the fall term and two in the winter, at which they read and discuss one another's thesis work.

Students must submit a full draft of the thesis by the sixth Monday of the winter term. This draft is read by two faculty members, appointed by the Chair, who are not the student's thesis supervisor. The student and these external
readers meet by the ninth week of winter term to discuss the thesis. The external readers can insist on significant revisions before submission of the final product. Final versions of theses are submitted to the supervisor and external readers on the second Monday of spring term. Public defenses are scheduled for the last few weeks of the spring term. Thesis grades are determined by supervisors and external readers.

The final version of the thesis should be between 20,000 and 30,000 words long. Students must submit four bound copies of the thesis, one of which is printed on acid-free bond paper, to the department administrator by the last Monday of the spring term.

**PHIL - Philosophy Courses**

To view Philosophy requirements, click here (p. 558).

**PHIL 1 - Introduction to Philosophical Topics**

Students will engage with central topics, debates and methods in philosophical inquiry. Emphasis is placed on developing critical reading and analytical writing skills. Readings may draw on both historical and contemporary sources.

Distributive: TMV

**PHIL 1.01 - The Problems of Philosophy**

Instructor: Plunkett

This course acquaints the student with some of the fundamental problems in at least three main areas of Philosophy: Theory of Knowledge, Metaphysics, and Ethics. Questions treated in lectures normally include: Can we know anything, and, if so, how? Does God exist? What is the relation between mind and body? Are our actions free or determined? What makes an act morally right or wrong? Some attention will be paid to the ways in which answers to these questions can be combined to create philosophical systems or total world views. The readings might include both contemporary essays and classic works by such philosophers as Plato, Descartes, and Hume.

Distributive: Dist:TMV

**PHIL 1.02 - Existentialist Ethics**

Inescapable freedom – this is what the existentialists held to be the mark of the human condition. Despite this shared view, however, they each proposed distinct and novel ways of understanding this freedom and its ethical import. To uncover the richness of their analyses of the human condition, the class will explore the complexity of freedom through the lens of core existentialist topics such as radical responsibility, transcendence, nothingness, alterity, inter-subjectivity, finitude, and the absurd.

Distributive: DIST: TMV

**PHIL 1.03 - Philosophy and Economics**

Instructor: Cruise

What makes an economic system fair or unfair? What does it mean to be economically rational? How should we evaluate public policy? How do we know when things go better or worse for a person? This course will explore a range of fundamental issues in ethics and political philosophy that have deep implications for economic analysis including distributive justice, well-being, and rationality. It will also examine philosophical perspectives on economic efficiency and social choice theory.

Distributive: Dist:TMV

**PHIL 1.04 - God, Darwin, and the Cosmos**

Instructor: Lewis

This course will examine the relation between science and religion. The course will consider evolution, creationism, and intelligent design. Topics will include the compatibility of Darwinism and theism, and the question whether “Intelligent Design” is a scientific theory. The course will consider questions such as ‘Is the Big Bang evidence for or against the existence of God?’ and ‘Is the fact that the universe is life-permitting evidence for the existence of God?’

Distributive: TMV

**PHIL 1.05 - Reasons, Values, Persons**

Instructor: Thomas

We will consider such questions as: What makes a life worth living? What makes a life a good life? What, if anything, makes a life a meaningful life? What, if anything, are the grounds of values? What is a person? What relation, exactly, do you bear to the person who first enrolled in this course? What is freedom? Are you free? What, if anything, do personhood, freedom and morality have to do with one another?

Distributive: TMV

**PHIL 1.06 - Classic and Experimental Philosophy**

What is God and does she exist? What can we know and what should we believe? Do we have free will? What action is the morally right action? Who or what deserves our care and concern? These fundamental questions about human existence have gripped deep thinkers, from bearded sages to college students, for centuries. What makes this course unique is that we explore these questions and others through readings from traditional philosophical texts and experimental approaches, to see how these questions can be approached by both philosophical and psychological perspectives.

Distributive: TMV
PHIL 1.07 - Life, Death, Relationships, and Meaning
In this course we will philosophize about what is valuable and how to live a life, asking how our answers to those questions are affected by the fact that lives don’t go on forever.
Distributive: TMV

PHIL 1.08 - Philosophy of Time & Time Travel
Instructor: Binkoski
On the one hand, time is completely familiar. On the other, it is a total mystery. As you might expect, the combination makes for good philosophy. In this course, we will study a variety of philosophical puzzles concerning the nature of time. Is time an illusion? Does time pass? Is the present special? Is time travel possible? Do the past and future exist? Does time have a direction? What is spacetime? What are the special and general theories of relativity? What do they imply about the nature of time?
Distributive: TMV

PHIL 1.09 - Science, Superstition, and Skepticism
Instructor: Lewis
Most of us believe that matter is made up of atoms, that smoking causes emphysema, and that the universe is billions of years old. Few believe that Virgos are hot-tempered, that you can see the future through a crystal ball, or that baking soda cures AIDS. We often hear that the difference between such beliefs is that one sort is based on science and the other isn’t. But what makes a method of inquiring into the world distinctively scientific? And what makes us justified in believing on the basis of these methods? This course is an introduction to the philosophical theory of knowledge that focuses on the knowledge that science is purported to offer. Possible topics include competing theories of justification, scientific induction, the nature of explanation, probability, scientific ‘revolutions’, the goals of science, trust in scientific authority, and skepticism.
Distributive: TMV

PHIL 1.10 - Minds, Meanings, and Images
Most things don’t mean anything. How is it that the contents of language and mental states can mean something? How do images represent or depict their objects? What do different answers to such questions tell us about the nature of minds, consciousness, and representation? What do different answers presuppose about reality and our capacity to know it? This course will focus on historical answers to such questions with an eye toward comparing common reference points in contemporary philosophy.
Distributive: Dist:TMV

PHIL 1.11 - True, Beautiful, Nasty: Philosophy and The Arts
Instructor: McNulty
Art is often cast as a pleasant distraction, but artists are lionized, ostracized, imprisoned, and even killed. Devotion to sub-genres of music, video games, literature, and street art builds and divides communities. What explains the role of the arts, and artists, in society, and what should their role be? How do positive (nice!) and negative (nasty!) aesthetic responses affect art’s function? Might art be an important, yet non-scientific, approach to understanding our world?
Distributive: TMV

PHIL 1.12 - Philosophy and Tragedy
Since antiquity philosophers have concerned themselves with tragic drama and its world-view. Why is this powerful and peculiar art-form regarded as both a rival to philosophy and also a site of significant philosophical activity? What philosophical insights or ethical developments are made possible through the depiction of suffering and grief? How does tragedy impact our understanding of human agency and the place of fate and chance in human life? Authors considered may include Homer, Sophocles, Euripides, Plato, Aristotle, Shakespeare, Racine, Beuchner, Hegel, Schopenhauer, Nietzsche, Camus, Miller, Nussbaum, Williams.
Distributive: Dist:TMV

PHIL 1.13 - The Historical Philosophy of W.E.B. Du Bois
Instructor: Rosario
This course will examine the historical philosophy of the towering Black scholar and great freedom fighter of the 20th Century. We shall engage in close readings of Du Bois’ classic work, “The Souls of Black Folk” (1903) as well as subsequent essays in his magisterial corpus, especially his classic autobiography, “Dusk of Dawn” (1940).
Cross-Listed as: AAAS 80.10 ENGL 53.40

PHIL 1.14 - Knowledge, Truth, and Power
Instructor: Binkoski
How does and how should social position – race, gender, class – affect our beliefs? What roles does trust play, and ought it to play, in knowledge? How is power implicated in what we can know and in who can be epistemic authorities? Are some agents unjustly epistemically disadvantaged, and if so, how? How ought we to shape our communal interpretive resources? Social epistemology is the study of socially shared beliefs. Some of its core concerns include testimony, disagreement, and the nature of group commitment.
PHIL 1.15 - Selves and Stories
Humans are narrators, making sense of themselves and their world. But what are narratives and how do they function? How do narratives engage emotions, desires, and imagination? What sorts of elements belong to narratives? What role does narration play in self-construction? Is it important to have ‘a life-story’? Are narratives an important part of authentic or ethical living? How do narratives differ from other forms of communicative or literary expression? How do individual narratives and social narratives interact? Can narratives serve as arguments or reasons or justifications or explanations? How do narratives figure in human inquiry, human agency, and moral responsibility?

PHIL 1.16 - Morality, Freedom, and the Mind
Instructor: Thomasson
In this course, we will focus on classic philosophical questions about morality, freedom, and the mind. We all have to address moral questions in our everyday lives, but how should we go about answering them? What makes actions right and wrong—is it the consequences of the action, or the principle followed, or something else? We all feel like we are free when we make important decisions. But does it make sense to think we might have free will, given that we are natural creatures, in a world governed by deterministic physical and biological laws? If we don't have free will, can we be held morally responsible for our actions? Finally, we all think of ourselves not just as physical beings, but as thinking things—as beings who are aware of our world, who have beliefs, thoughts, and hopes. But what is the mind—and what are beliefs, thoughts, hopes? Can the mind be understood as identical with the brain, or mental events as events in the brain? If not, how can talk about the mental be understood? We will examine a variety of approaches to these three central topics through both historical and contemporary philosophical texts.

This course will examine the classical works of three towering modern intellectuals: W.E.B. Du Bois, James Baldwin, and Lorraine Hansberry. We will wrestle with the rich formulations, subtle arguments, and courageous visions of three Black thinkers who continue to speak with power and passion to our turbulent times.

Cross-Listed as: AAAS 21.10 ENGL 53.43
Distributive: Dist:LIT; WCult:W

PHIL 1.18 - The Self in Philosophy, Psychology, and Neuroscience
Instructor: Rosario
What makes you, YOU? Is it the sum of your memories, or your brain, or perhaps an immortal soul? In this course, we will cross the centuries together to examine ancient and modern theories of personal identity in philosophy and consider also current empirical perspectives from the cognitive sciences. You will discover canonical readings from historical and contemporary sources in multiple philosophical traditions and discuss how famous clinical cases challenge our thinking about the self.

PHIL 1.19 - Identity, Liberalism, and Democracy
Instructor: Plunkett
What would a just form of democracy look like in a pluralistic society that involves people with diverse identities and values? What policies and laws should the state adopt to counter-discrimination and social inequality, and how do they fit (or conflict) with ideals of liberalism? What are social identities, and how do they operate? How are social identities mobilized in different social movements, such as forms of fascism and populism? In this interdisciplinary course, we will examine these and other questions about social identity and its relation to ideals of liberalism, democracy, and justice.

Cross-Listed as: GOVT 30.15
Distributive: Dist:TMV

PHIL 3 - Reason and Argument
Instructor: Kulvicki
An introduction to informal logic with special attention to the analysis of actual arguments as they arise in daily life as well as in legal, scientific, and moral reasoning. Along with the analysis and criticism of arguments, the course will also consider the methods for constructing arguments that are both logically correct and persuasive. Open to all classes.

Distributive: TMV

PHIL 4 - Philosophy and Gender
Instructor: Rosario
This course will focus primarily on the following questions: What is feminism? What is sexism? What is oppression? What is gender? Is knowledge gendered? Is value gendered? What is a (gendered) self? What would liberation be? In exploring these issues, we will examine the ways feminist theorists have rethought basic concepts in core areas of philosophy such as ethics, social and political philosophy, metaphysics, epistemology,
philosophy of law, and philosophy of mind. Open to all classes.

Cross-Listed as: WGSS 46.01
Distributive: Dist:TMV; WCult:CI

PHIL 4.01 - Feminist Perspectives on Reproductive Ethics
Instructor: Bumpus
An examination of ethical issues concerning human reproduction. Some of these issues are familiar: Is abortion moral? Is sex-selection ethical? Other issues may be less familiar: Does prenatal testing express a negative message about living with disability? Is there anything wrong with aiming to have a deaf child? Yet other issues have arisen with the commercialization and globalization of reproduction: Is there anything wrong with selling one’s reproductive labor? Is it ethical to ‘outsource’ pregnancy to Indian surrogates? We will start by looking backward to ethical issues around the introduction of contraception; we will end by looking forward, to the promise of same-sex reproduction through in vitro-gametogenesis, and reproduction via artificial gestation. While we will consider numerous perspectives on each issue, special consideration will be given to feminist viewpoints.

Cross-Listed as: WGSS 61.06
Distributive: Dist:TMV

PHIL 5 - Philosophy and Medicine
Instructor: Bumpus
An examination of some philosophical issues in the field of medicine. Primary focus will be on the moral issues that arise in dealing with individual patients, e.g., paternalism, informed consent, euthanasia, and abortion. There will also be an attempt to clarify such important concepts as death, illness, and disease. Open to all.

Distributive: TMV

PHIL 6 - Logic and Language
Instructor: Rosenkoetter
This course introduces contemporary sentential logic and predicate logic. Both the theory of logic and its application to ordinary language are developed. Topics include symbolization, truth tables, truth trees, interpretations, and derivations. Each week one lecture, three quiz days, and three afternoon individualized discussion sessions are offered (normally MWF 4:45-5:15pm). The individual discussion sessions allow students to pursue their questions and obtain feedback on quizzes on a one-on-one basis. The self-pacing aspect of the course allows students who have difficulty to receive more assistance and those who do not need as much assistance to move ahead more quickly. Open to all classes.

Distributive: QDS

PHIL 7 - First-Year Seminars in Philosophy
Instructor: The staff

PHIL 8 - Introduction to Moral Philosophy
Instructor: Walden
An introduction to the foundations and nature of ethics. Questions may include: What is the good life? What is it for something to have value? Are there acts that ought never to be done, no matter the consequences? Is ethics objective or relative to different perspectives? We inevitably make assumptions whenever we offer ethical verdicts about particular cases. This course aims to think systematically about those assumptions. Open to all classes.

Distributive: TMV

PHIL 9 - Applied Ethics
Instructor: Spink
An examination of the ethical dimensions of some contemporary controversies. Topics will vary from year to year but may include: business, death, discrimination, the environment, gender, law, media, race, sex, technology, and war. The course may be taken more than once for credit with permission of the instructor. Open to all classes. No prerequisites.

Distributive: TMV

PHIL 9.01 - Reproductive Ethics
Instructor: Bumpus
What do we owe human life, once it has begun to develop? Is a woman morally required to continue gestating a fetus, once it has begun developing? Does the answer depend upon whether or not the fetus is a person? Some forms of assisted reproduction yield a surplus of human embryos. Is using these embryos for research moral? Is it moral to dispose of them? What may we do in the interest of creating human life? We tend to grant people broad procreative liberty. Should deaf couples be allowed to select for deafness? And what about choosing enhanced traits for our children? Some people worry we are facing a future where the rich can design their babies – choosing to create a musical prodigy or a baby Einstein – but the poor cannot. If so, is distributive justice the only concern about such a future?

Distributive: TMV

PHIL 9.02 - Environmental Ethics
Instructor: Binkoski
This course provides a general introduction to ethical problems concerning the environment. The course will cover some standard positions in the field, including biocentrism (the thesis that all living organisms have
intrinsic moral worth) and ecocentrism (the thesis that entire natural systems have intrinsic moral worth). Topics considered may include: the ethics of food; the ethics of climate change; the moral status of non-human animals; population, consumption, and sustainability; GMOs and organic food; our duties to other persons, including future persons; and the difficulty of formulating comprehensive climate policy.

Distributive: TMV

PHIL 9.04 - The Ethics of Food Choice and Food Policy

In this course, we will consider ethical questions for food production, food consumption and food policy. How do ethical values interact with our food choices? Should we support the production of local and organic food? If so, why? If not, why not? Are there compelling moral reasons to adopt a vegetarian or vegan diet? Is it possible to be an ethical omnivore? Do current production practices or food policies have a disproportionately negative impact on some populations? How, if at all, should practices or conditions in the food industry influence our behavior as consumers? In the course of our discussions, we will consider the ethics of harm, distributive justice, complicity, death and obligations to future generations.

Distributive: Dist:TMV

PHIL 9.06 - Friends, Lovers, and Comrades: Ethical Issues of Special Relationships

This course will investigate philosophical issues that arise in our relationships with other people. What kind of attitude is love? What makes someone a genuine friend? Is partiality to one's friends and family morally justifiable? Is patriotism? What are the moral responsibilities of sex? Readings from classic and contemporary sources, including Plato, Aristotle, Pufendorf, Hume, Kant, Freud, and Beauvoir.

Distributive: TMV

PHIL 9.07 - Ethics of Freedom, Paternalism, and Intervention

Instructor: Rosenkoetter

We will begin by considering foundational issues in the morality of attempts to steer actors (people as well as states) towards better outcomes. We apply the resulting theories to concrete issues such as speech, health, drugs, guns, dangerous pursuits, incarceration, and intervention in the affairs of other nations.

Distributive: TMV

PHIL 9.08 - Ethics and Information Technology

Instructor: Brison

How do we understand moral agency and moral responsibility in the context of the internet? What rights, protections, and obligations govern, or should govern, social media? Readings and discussions will include: privacy, harm, surveillance, consent, pornography, freedom of expression, accountability, anonymity, games, violence, and activism.

Distributive: Dist:TMV

PHIL 11 - Ancient Greek and Roman Philosophy

Instructor: Thomas

Students will study the origins of Western philosophical thought as it emerges in classical Greece and Rome from 6th century BCE through the 4th century CE. Topics may include: the methods and value of philosophy; the fundamental nature of reality; the possibility of knowledge; the roles of logic and mathematics in inquiry; philosophy of biology; philosophy of medicine; moral psychology and human action; virtue and human flourishing; political philosophy; fatalism; death.

Prerequisite: One Philosophy course, or CLST 3, or permission of the instructor.

Distributive: Dist:TMV; WCult:W

PHIL 12 - Medieval and Renaissance Philosophy

Instructor: Spink

Inspired by classical philosophy, Jewish and Islamic thought, and Christian doctrine, medieval philosophy (from, roughly, the 4th-15th centuries) strives to reconcile its various influences while making creative contributions and great strides in philosophy of religion, logic, natural philosophy, philosophy of mind and metaphysics. The late medieval period paves the way for intellectual revolutions in the philosophy of science, philosophy of religion and political theory of the Renaissance period (roughly the 14th – 16th centuries).

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: Dist:TMV; WCult:W

PHIL 12.01 - Medieval Philosophy of Language and Reality

Instructor: Rosenkoetter

We will begin by considering foundational issues in the morality of attempts to steer actors (people as well as states) towards better outcomes. We apply the resulting theories to concrete issues such as speech, health, drugs, guns, dangerous pursuits, incarceration, and intervention in the affairs of other nations.

Distributive: TMV
PHIL 13 - Early Modern Philosophy
Instructor: Spink

Early modern philosophy is western European philosophy mostly of the 17th and 18th centuries, sometimes indicated as spanning from the early writings of Descartes (c. 1619) to the publication of Kant's *Critique of Pure Reason* (1781). It encapsulates the break from prior Scholastic and Renaissance traditions in philosophy and science and becomes hugely influential in setting the agenda of western philosophy—in epistemology, metaphysics, philosophy of mind, ethics, political philosophy, etc.—through the 20th century and up to today.

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: Dist:TMV; WCult:W

PHIL 13.01 - 17th Century Rationalists

A study of central themes in the works of the three most celebrated philosophers of the seventeenth century: Descartes, Spinoza and Leibniz. Metaphysics and epistemology will be our focus, and the topics we’ll explore include mind, matter, necessity, contingency, truth, causation, space, time, knowledge, reason and the existence of God. We’ll approach their philosophy through a variety of their texts, in English translation, including treatises, papers, dialogues, letters and unpublished drafts and notes.

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: Dist:TMV; WCult:W

PHIL 13.02 - British Empiricism

The Empiricists believed that concepts and knowledge are sourced exclusively in the senses. This position found its most detailed presentation in John Locke (1632-1704), George Berkeley (1685-1753), and David Hume (1711-1776). It led to a picture of the mind, how it relates to the world, and how this leads to knowledge that is still influential today. This course develops that picture, with an eye to the philosophical context in which it came about and its influence on subsequent generations. In addition to Locke, Berkeley, and Hume, other (mainly British) writers considered might include Thomas Hobbes, Margaret Cavendish, Anne Conway, Catharine Cockburn, Gottfried Wilhelm Leibniz, Damaris Masham, Frances Hutcheson, Thomas Reid, and Mary Shepard.

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: Dist:TMV; WCult:W

PHIL 13.03 - The British Moralists
Instructor: Walden

During the late Seventeenth and Eighteenth Centuries, Britain was the site of especially vigorous and fertile debates about some central issues in moral philosophy. This course explores those debates, including: the nature of moral judgment, the objectivity of moral principles, the dynamics of the moral sentiments, the motivational potential of moral responses, the freedom of the will, and the moral characteristics of the sexes.

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: Dist:TMV; WCult:W

PHIL 16 - Late Modern Philosophy

In this course students will engage with figures and topics from the period initiated by Kant's *Critique of Pure Reason* in 1781 and ending, roughly, with Nietzsche's last work in 1888. Figures may include: Kant, Herder, Schleiermacher, Reinhold, Schelling, Schlegel, Fichte, Hegel, Schopenhauer, Kierkegaard, Feuerbach, Marx, Bolzano, Brentano, Meinong, Mill, and Nietzsche. Topics may include: idealism and realism, materialism, social and political philosophy, religion, value, existentialism, psychologism, logic, semantics, philosophy of cognition, and philosophical methodology.

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: Dist:TMV; WCult:W

PHIL 16.01 - Self-Consciousness in German Idealism

Our theories of action and knowledge are condemned to fail if they are not guided by a philosophically fundamental inquiry into the nature of self-consciousness. Kant maintains a modest version of this thesis. Fichte and Hegel make it the key to their ambitious systematic philosophies. This course aims to isolate and evaluate the basic insights that animate German Idealism.

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: Dist:TMV; WCult:W

PHIL 16.02 - Kant on Moral, Legal, and Political Philosophy

Instructor: Rosenkoetter

According to Kant’s influential account of morality, how an agent understands her own actions determines their moral status. An act that is innocuous in its external guise might be morally problematic because of its internal principle. Kant supplements this with an account of how we ought to relate to other persons in external respects. This “doctrine of right” offers a compelling alternative to more widely known political and legal philosophies. This class will provide a unified introduction
to both parts of Kant’s attempt to understand the normative implications of agency.

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: Dist:TMV; WCult:W

PHIL 16.03 - Hegel and Marx
Instructor: McNulty

This course concerns two towering figures of the nineteenth century, Hegel and Marx. Our goal is to explore their contrasting views of modern society, especially the modern market economy. We begin with Hegel’s Philosophy of Right, an attempt to show that modern society promotes human freedom. We then turn to Marx’s Paris Manuscripts and Capital, considering his case for the revolutionary overthrow of this society. Topics discussed along the way may include private property, individual rights, human nature, alienation, exploitation, civil society, democracy, false consciousness, and ideology critique.

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: Dist:TMV

PHIL 19 - History of 19th/20th Century Philosophy
Instructor: Spink

This course treats philosophical topics and figures in the rich and influential period that spans the 19th and 20th centuries. Topics may include: subjectivity, agency, power, atomism, idealism, positivism, critiques of metaphysics, ideology, psychologism, the unconscious, intentionality, consciousness, analysis, naturalism and modality.

Prerequisite: One course in philosophy or permission of the instructor.

Distributive: Dist:TMV; WCult:W

PHIL 19.01 - Wittgenstein
Instructor: Kulvicki

An investigation of Ludwig Wittgenstein's philosophy, its sources, and its enduring significance. The main line of the course traces the logical atomism of his early years through his rejection of it as dogmatic and the subsequent development of his thoughts about meaning, mind, language games, and rule-following. Other topics might include his philosophy of mathematics, his remarks on color, or his aesthetics and value theory.

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: Dist:TMV; WCult:W

PHIL 19.02 - Transcendental Philosophy in Husserl and Heidegger

Transcendental philosophy seeks to uncover conditions for the possibility of experience. This course will study the ways in which Husserl and Heidegger develop and refine Kant’s transcendental project in the course of their phenomenological investigations, in part by broadening the range of human experience that is subject to philosophical scrutiny. Time will be one focus of the course, as we seek to reconstruct Heidegger’s claim that different conceptions of time yield different understandings of what it is to be.

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: Dist:TMV; WCult:W

PHIL 19.03 - Positivism and Ordinary Language Philosophy

As the natural sciences developed and branched off from philosophy, philosophers faced the question: What is left for philosophy to do? This crisis led philosophers in the positivist and ordinary language traditions to reexamine the role of philosophy, the boundaries between the meaningful and the nonsensical, and the possibility of metaphysics. In this class, we will study the motivations, methods, and results of each approach, as well as examining prominent criticisms raised against them.

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: Dist:TMV; WCult:W

PHIL 22 - Feminism and Philosophy

This course examines the relationship between feminism and philosophy. The focus is on such questions as: Is the Western philosophical canon inherently sexist? How should feminist philosophers read the canon? Are Western philosophical concepts such as objectivity, reason, and impartiality inherently masculinist concepts? The course may focus on either the ways in which feminists have interpreted great figures in the history of philosophy (e.g., Plato, Aristotle, Descartes, Hume, Kant, Nietzsche), or on the ways in which feminists have rethought basic concepts in core areas of philosophy (e.g., epistemology, ethics, metaphysics, political philosophy, philosophy of science), or both. Open to all classes.

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: Dist:TMV; WCult:CI

PHIL 23 - Art and Aesthetics

What is art, and what’s the point of it? Does it help us understand the world better or enjoy it more? Does art distract us from what is really important? What is beauty, and ought the arts aim at producing it? What are
representation, expression, and realism, and how do they figure in different art forms? The course addresses combinations of these questions through both reading philosophy and engaging with artwork.

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: ART

**PHIL 23.01 - Ethics and the Arts**

Instructor: Walden

From novels, films, and television to painting, sculpture, and symphonies, the influence of art on our character, our values, and how we see the world is pervasive. This raises a number of important philosophical questions at the intersection of ethics and the philosophy of art. Do both moral properties like goodness and aesthetic properties like beauty exist only "in the eye of the beholder", or are one or both of them more objective? Can we learn things about what is good and right, or how to be better people from reading great literature or seeing important paintings? How might the moral character of a work of art affect its aesthetic merit? Is *Birth of a Nation*, for example, a worse film because of its racism?

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: Dist:ART

**PHIL 23.02 - Philosophy and the Cinematic Arts**

Moving images introduce new questions and problems in philosophy of art, and they offer new perspectives on old ones. How does film differ from the other arts? Do moving images represent time, and if so, do they do it in a pictorial manner? In what critical, aesthetic, and representational respects does cinema differ from theater, painting, and the other mimetic arts? Did cinema introduce new possibilities for realism into artistic practice? How should we understand the tangled relationship between photography and cinema? How does the study of moving images relate to problems in other areas of philosophy, like the philosophy of mind and the philosophy of language?

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: Dist:TMV

**PHIL 23.03 - Art and Its Nature**

Instructor: Thomasson

What is the nature of art? Can ‘art’ be defined, or do attempts at definition illegitimately constrain creative innovation in the arts? What sorts of things are paintings, songs, or works of literature? How are they related to things such as colored canvases, scores, the cultural context, artists, and audiences? Are there important differences in kind among arts like painting, literature, and music? This course will investigate these and other questions about the definition and ontology of art.

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: Dist:ART

**PHIL 24 - Law and Philosophy**

Instructor: Cruise

Legal practice raises a wide range of questions of interest to philosophers. Some concern how best to understand central concepts invoked in laws: What are contracts? What is free speech? Other questions concern what kinds of laws and legal institutions we should have: What kinds of laws should regulate hate speech? When is the state justified in using coercion to enforce laws? Still other questions concern law itself: How are legal norms related to moral norms?

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: Dist:TMV; WCult:W

**PHIL 25 - Philosophy of Cognitive Science**

Instructor: Roskies

What is the mind and how can we model it? Cognitive science offers a distinctive approach to some of the great philosophical questions about the mind. But what does it tell us? This course will cover the classical foundations of cognitive science, and some of the more recent developments in the field. We will study the computational theory of the mind and its implications, connectionism, theories of embodiment, dynamical systems, and recent statistical approaches to cognition. (Not open to students who received credit for PHIL 010/COGS 11.01.)

Prerequisite: One Philosophy course, or permission of the instructor.

Cross-Listed as: COGS 025

Distributive: Dist:TAS

**PHIL 26 - Philosophy and Computers**

Instructor: Ratoff

The accomplishments of artificial intelligence research and the widespread use of computers in our society confront us with many interesting philosophical questions. What are the limits of artificial intelligence? Could computers ever think or feel? Is the Turing test a good test? Are we really computers? Are there decisions computers should never make? Do computers threaten our privacy in special ways? This course will consider such issues in order to explore the philosophical implications of computing. Open to all classes.
Prerequisite: One Philosophy course, one Cognitive Science course, one Computer Science course, or permission of the instructor.

Cross-Listed as: COGS 026

Distributive: Dist:TAS

**PHIL 27 - Philosophy of Science**

Instructor: Lewis

In this course students examine the history, practices, methods and assumptions of the natural and social sciences. Topics may include: the objects and methods of scientific inquiry; causation and explanation; the structure and function of laws and theories; the role of mathematics and models in science; scientific representation; induction and probability; scientific revolutions; the intersections of science and value; and the sociology of science.

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: TMV

**PHIL 28 - Phenomenology and Existentialism**

Instructor: Thomasson

This course examines the traditions of phenomenology and existentialism, primarily through a study of German, Austrian, and French philosophy from the first half of the twentieth century, but also including more recent work inspired by these traditions. Major historical figures covered in this course may include: Franz Brentano, Edmund Husserl, Martin Heidegger, Maurice Merleau-Ponty, Jean-Paul Sartre, Simone de Beauvoir, and Emmanuel Levinas. Special topics may include: the nature of subjectivity or consciousness; theories of intentionality; phenomenology and post-phenomenology; historicity; freedom and responsibility; existentialist theories of oppression; and existentialist ethics.

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: Dist:TMV; WCult:W

**PHIL 28.01 - Heidegger's Being and Time**

This course will focus on Heidegger’s Being and Time. Topics to be discussed include: the foundations of metaphysics, knowing-how vs. knowing-that, agency, practical reason, social identity, social ontology, philosophical methodology, and the phenomenology of everyday experience.

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: Dist:TMV; WCult:W

**PHIL 28.02 - Phenomenology and the Mimetic Arts**

Phenomenology offers a distinctive approach to philosophical problems because it is centered on unpacking the structure and content of experience. This course introduces students to phenomenological methods, and then focuses these techniques on the mimetic arts. The arts of imitation – figurative painting and sculpture, photography, film, theater, and so on – are particularly phenomenologically interesting. Experiences of them are complex because they involve awareness of the representations as well as what they represent, among other things. As such, they are both excellent candidates for phenomenological analysis, as well as test cases for phenomenological methods. This course will consider both classical and contemporary thinkers in the phenomenological tradition, as well as their critics.

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: Dist:TMV; WCult:W

**PHIL 29 - Philosophy of Logic and Mathematics**

Instructor: Walden

Logic and philosophy of mathematics are ancient fields of study and have also flowered in recent times. Courses in this rubric study principles, results and methods of logic (whether in 'classical' or 'non-classical' systems) or philosophical issues concerning the interpretation of logic and mathematics (e.g., what justifies the rules of inference? what is mathematics about? what is logical or mathematical truth? what does a proof prove?). Emphasis may be historical or contemporary.

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: TMV

**PHIL 29.01 - Of Time and Necessity: Philosophy of Logic**

Often we reason about what is now, actually the case. But often we also reason about what was or will be. Or about what could or might or would have been; or about what must be, even if some things could have been otherwise. What are the correct rules for this? What, if anything, makes them correct? We shall develop some elementary parts of modal and temporal logic and consider their interpretation and philosophical significance.

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: TMV

**PHIL 29.02 - The Infinite**

Infinity is an indispensable concept for mathematics. Arithmetic deals with infinitely many natural numbers, geometry with infinitely long lines, calculus with infinitely...
small changes, and set theory with multiple levels of infinity. But the infinite raises distinctive philosophical problems. Just what is our concept of the infinite? A completed totality larger than any finite totality? Something that extends beyond all bounds? What justifies us in applying this concept? Are there larger and smaller levels of infinity? How many? Moreover, how are we to deal with the paradoxes that arise from the concept? The infinite also has a related, but arguably distinct use in certain philosophical debates where it is used to denote ideas of perfection or completeness, e.g. of the divine or human reason. What is the relationship between this notion of the infinite and its use in mathematics? Readings will include historical and contemporary sources, from Aristotle to Cantor to today.

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: Dist:TMV

PHIL 30 - Epistemology and Methodology
Instructor: Lewis
This course deals with the nature of inquiry. Which methods of inquiry should we rely on? Can we know or understand anything? Of what value are knowledge and understanding? Topics covered may include skepticism, the methodologies of science, mathematics and philosophy, the social nature of knowledge, self-knowledge, the nature of memory and knowledge of the past.

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: TMV

PHIL 31 - Metaphysics
Instructor: Rosario
This course will focus on one or more central topics in metaphysics, possibly including the existence and nature of the divine, the infinite, free will, personal identity, the self, actions and intentions, space and time, change, the nature of properties, truth, necessity and modality.

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: TMV

PHIL 31.01 - Space and Time
Instructor: Lewis
In this course, we will consider some historically significant questions about the nature of space, time and spacetime. How are space, time and change related? Is space some kind of substance or container for events? Or is space a relation between things? Is time mind-dependent? How, if at all, is motion or persistence through space and time possible? Are the past, present and future equally real? Is time travel possible?

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: Dist:TMV

PHIL 31.04 - Realism and AntiRealism
In this course, we will explore a portion of the complex web of debates between realists and antirealists. Questions we will consider include: What is realism? On what bases do we commit to the existence of something? To what extent, if any, are objects of experience and inquiry (e.g. colors, values, natural laws, numbers) independent of the mind? What role, if any, does the mind play in the construction or conception of meanings, properties or things? What role does language play in determining ontological commitments? What is truth? What, if anything, do distinct conceptions of meaning, objectivity and truth suggest about the nature of reality or about the mind’s capacity to determine or to know what is real?

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: Dist:TMV

PHIL 31.05 - Time, Truth and Fate
If it’s already true that I’ll die in an avalanche tomorrow or else that I won’t—logic says it’s one or the other—is it pointless to take precautions? Is everything fated to happen as it does? Is the future open? Can we change the past? Is anything real apart from the present? Does the present exist? Does the truth about time require different rules of logic? We’ll draw on sources from Aristotle to today.

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: TMV

PHIL 31.06 - Free Will, Agency and Responsibility
What sorts of agents are we? Do we have free will? Are we ever truly the authors of our actions? Does science—whether physics or psychology or neuroscience—promise to give us the answers? What are the consequences for moral responsibility? The metaphysical, scientific and social dimensions of these classic questions in philosophy run deep through their history and are focal points of contemporary discussion.

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: Dist:TMV

PHIL 31.07 - The Social World
Instructor: Thomasson
Our world is rife with social entities such as money, states, clubs, and corporations. But what are these things? They seem as real as trees or mountains, yet at least some seem to be constructed by our beliefs and practices in ways that other physical things are not. This course explores questions about what social objects and social groups are, how they differ from natural objects, and how we can acquire knowledge of them.

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: Dist:TMV

PHIL 31.08 - Puzzles of the Material World

The world around us seems to be populated with familiar objects of all sorts: plants and animals, tables and chairs, rivers and mountains. Yet a range of puzzles and paradoxes have been raised to do with the vagueness of ordinary objects, their relationship to the matter that makes them up, and the apparent rivalry between scientific and everyday descriptions of the world. Might ordinary objects be an illusion? What does the material world truly contain? Can we save our common-sense view of the world?

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: Dist:TMV

PHIL 32 - Intermediate Logic

An investigation of three branches of symbolic logic: first-order predicate logic with identity, sentential modal logic, and predicate modal logic. Topics to be covered may include Russell's theory of definite descriptions; the treatment of non-denoting terms in logics known as "free logics;" investigations of various modalities, involving pairs of concepts such as necessity and possibility, being obligatory and being permitted, and being known and being believed; Kripke-style "possible world" semantics.

Prerequisite: PHIL 6, or MATH 39 or MATH 69, or permission of the instructor.

Distributive: QDS

PHIL 34 - Language and Thought

Instructor: Thomas

Studies of language and cognition play central and defining roles in the history and development of philosophy. Students will investigate the nature of language and its relations to logic, thought and reality. Specific topics may include theories of signs, meaning, reference, truth, and speech acts. Other possibilities include necessity, analyticity, tensed statements, counterfactual conditionals, indexicals, pragmatics, metaphor, intentionality and vagueness.

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: TMV

PHIL 35 - Mind and Psychology

The mind is both a part of the world and the source of our perspectives on it. A variety of approaches to understanding the mind consider such questions as: What is consciousness? What is it to think about things? How does the world as we know it through the sciences allow for conscious, thinking creatures to exist? Are there unconscious thoughts and desires? Can psychology, neuroscience, philosophy and psychiatry help us answer these questions?

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: TMV

PHIL 35.01 - Theories of Consciousness

Instructor: Ratoff

Conscious experience is at once both completely familiar and utterly mysterious: how is it that electrical activity in a lump of grey matter – the brain – gives rise to the Technicolor phenomenology of our conscious experience? If human beings are just biological machines, then how is possible that we have a subjective point of view on the world? Why are we not just mindless robots, that produce behavior in light of stimulations from the environment, but lack any inner awareness or consciousness? In this class we will read, and bring together in conversation, cutting edge work from philosophy, psychology, and the neurosciences on the nature of consciousness.

Prerequisite: One Philosophy course, one cognitive science course, or permission of the instructor.

Cross-Listed as: COGS 50.04

Distributive: Dist:TMV

PHIL 36 - Metaethics

Instructor: Rosenkoetter

This course explores foundational questions about ethics. For instance: What, if anything, makes an ethical judgment correct? Are ethical facts created or discovered? Can ethical judgments ever be objectively true, or are they only true "from a point of view?" How are ethical judgments related to natural science and the picture of the world it offers us? How can we come to justified beliefs about ethics?

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: TMV

PHIL 37 - Ethical Theory

Instructor: Bumpus
This course is broadly concerned with questions about what is right, good and virtuous. Some instances of the course will treat abstract questions. For example: Are moral principles universal or relative to a particular group? Is an act right just in case it maximizes happiness? Do we have good reason to be moral? More focused instances might include: Do we have duties to non-humans? When is it morally permissible to kill a person?

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: TMV

PHIL 37.01 - Consequences and Contracts

Ethical theory begins with questions about the foundations of morality: Why should I care about other people at all? It then asks very general questions about what shape our duties to self and others should take: Given that I owe something to other people, do I owe them pleasure? Happiness? To help them pursue their projects? To solicit their consent? This class is devoted to two systems of answers to these questions. The first, consequentialism, holds that the moral status of an action is primarily a matter of whether it brings about good or bad consequences. The second, contractualism, understands moral principles as grounded in a hypothetical contract between agents.

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: TMV

PHIL 38 - Social and Political Philosophy

Through the study of classical and contemporary texts in political and social theory, we will consider such issues as how and to what extent (if at all) political authority can be justified, what the criteria are for distributive justice, and how social and political inequalities (such as those based on race and gender) should be conceptualized and addressed.

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: TMV

PHIL 38.01 - Equality, Justice, and Democracy

Instructor: Plunkett

What is the nature of equality? How much does equality matter in ethics and politics? And why (if at all) does equality matter in the first place? This course concerns these and related questions about the role of equality in evaluating the social and political world. One of our central concerns will be how equality relates to other (purportedly important) ethical and political values, including justice, democracy, and freedom.

Prerequisite: One Philosophy course, or permission of the instructor.

Distributive: Dist:TMV

PHIL 38.02 - Ethics, Politics, and the Law

Instructor: Plunkett and Muirhead

This interdisciplinary course will examine normative issues about ethics, politics, and the law. Specific question studied might include the following: When is the state justified in using coercive force to secure compliance with the law? How should we proceed with those who disagree with us about normative questions within a democratic, pluralistic society? Are there correct answers to normative questions at all, and (if so) how might we improve in learning about them?

Prerequisite: One Philosophy course, or permission of the instructor.

Cross-Listed as: GOVT 86.41

Distributive: Dist:TMV

PHIL 38.03 - Race, Justice, and the Law

Instructor: Plunkett and Muirhead

The last few years has seen increased calls for “racial justice” by a range of actors across the USA. How should we evaluate these calls? For example: what exactly is racial justice? What would it mean for our society to achieve more of it? And what methods for achieving it are (and are not) permissible in a pluralistic, democratic society? We will approach these and related questions by engaging with theories of racial justice, general theories of justice, and theories of race and racism. As part of our discussion, we will also engage with debates about more specific social/political issues tied to debates about racial justice, including such issues as mass incarceration, the foundations of criminal law, affirmative action, antidiscrimination law, propaganda, ideology critique, and political speech.

Prerequisite: One Philosophy course, or permission of the instructor.

Cross-Listed as: GOVT 86.45

Distributive: Dist:TMV

PHIL 39 - Critical Theory and Post-Structuralism

Instructor: Plunkett and Muirhead

This course examines themes in 20th and 21st century French and German philosophy, with a focus on critical social theory of the Frankfurt School and French post-structuralism, and contemporary work inspired by these traditions. Figures covered in this course may include: Adorno, Horkheimer, Habermas, Foucault, Deleuze, Derrida, and Honneth. Topics may include: the dialectic of enlightenment; the critique of power; the
Frankfurt School; structuralism and post-structuralism; and
the problem of modernity.
Prerequisite: One Philosophy course, or permission of the
instructor.
Distributive: Dist:TMV; WCult:W

PHIL 39.01 - Foucault
This course will focus on the work of Michel Foucault.
Foucault’s work, which combined historical and
philosophical inquiry in innovative ways, helped shape
many discussions across the humanities and social sciences
in the second half of the twentieth century, and continues
to be influential today. We will discuss Foucault’s thinking
about a range of topics, including ones such as genealogy,
power, discourse, sexuality, biopolitics, truth, knowledge,
subjectivity, social identity, agency, and philosophical
methodology.
Prerequisite: One Philosophy course, or permission of the
instructor.
Distributive: Dist:TMV; WCult:W

PHIL 40 - Race, Gender, Sexuality
Instructor: Brison
This course focuses on the critical examination of race,
gender, sexuality, and other intersecting categories of
identity, oppression and resistance such as class,
nationality, and dis/ability. Prerequisite: One course in
philosophy or permission of the instructor
Prerequisite: One Philosophy course, or permission of the
instructor.
Distributive: Dist:TMV; WCult:CI

PHIL 45 - Special Topics in Philosophy
Instructor: Visiting Edinburgh Professor
The content of this course varies from term to term. See
individual topic descriptions for details.
Prerequisite: One Philosophy course or permission of the
instructor.
Prerequisite: One Philosophy course, or permission of the
instructor.

PHIL 45.01 - Paradoxes and Puzzles
Paradoxes have played influential roles in philosophical
investigations since antiquity. Paradoxes figure both in
arguments for important philosophical theses and in
(alleged) refutations of substantive positions. This course
considers a selection of celebrated paradoxes along with
important attempts to solve them. Students will consider
topics in a variety of fields, possibly including philosophy
of language, logic, ethics, decision theory, metaphysics,
epistemology, and philosophical methodology.
Prerequisite: One Philosophy course, or permission of the
instructor.

PHIL 45.02 - God, Belief, and Evil
God is supposed to be a perfect being: all-knowing, all-
powerful, and perfectly good. Famously, there are 'proofs'
of God's existence, and 'proofs' to show the opposite. What
should we think? This class explores the question of God's
nature and existence, and what it means for human belief
and action. What are the divine attributes? How strong are
the arguments for or against God's existence? Can religious
belief be rational? How could a perfect God permit evil?
Can there be morality without God?
Prerequisite: One Philosophy course, or permission of the
instructor.

PHIL 45.03 - Consent in Philosophy and Law
What is consent? Despite its enormous moral and legal
centrality, the idea of consent seems flawed in important
ways. It is not obvious what counts as consent, or what
makes it reasonable to believe in consent. Consent can be
coerced, or unwilling. Ideally, consent and refusal are
instantaneous powers conferring recognized permission or
obligation on recipients. In real life, however, particularly
for women, consent and refusal can be ignored, dismissed,
misunderstood, or deemed irrelevant. We will examine the
concept of consent in legal theory and moral philosophy to
move towards a better understanding of it in sexual
contexts.
Prerequisite: One Philosophy course, or permission of the
instructor.
Distributive: Dist:TMV

PHIL 45.04 - Embodied Cognition
This course critically examines approaches in the
philosophy of mind and cognitive science that see our
psychological capacities as importantly dependent on our
bodily form and abilities, and our environmental
surroundings. We will examine how this view of mind as
essentially 'embodied and embedded' arose in reaction to
the classical 'cognitivist' paradigm in cognitive science
that understands psychological capacities in terms of
computational processes implemented by the brain,
consider various ways in which the body and environment
might contribute to explanations of cognition, and look at
the prospects and challenges for embodied cognitive
science in various domains.
Prerequisite: One Philosophy course, or permission of the
instructor.

PHIL 50 - Advanced Seminar in Philosophy
This course may be offered in any term and the content
varies; see individual topic descriptions.
I. MAJORS AND THE MINOR OPEN TO THE CLASSES OF 2023 AND EARLIER

PHIL 50.09 - Personal Identity and the Self

What sorts of beings are we? Embodied psychologies? Thinking animals? Moral agents? Narrative constructs? The metaphysical questions are abiding ones because of their intrinsic interest, and also because of their rich connections to developing theories of human biology, psychology, value, freedom, and agency. We will investigate which features, if any, are essential to the sorts of beings we are. We will ask after the grounds for existence and persistence of such beings across time (e.g. biological capacities, self-reflective capacities, rational agency). We will consider models of self-constitution, self-knowledge and self-deception. If time permits, the course will conclude with an exploration of the impact of psychological fragmentation on personhood, self-constitution and agency.

Prerequisite: Two Philosophy courses, or permission of the instructor.
Distributive: TMV

PHIL 50.14 - Property, Markets, and Capitalism

Property is a fundamental topic in political philosophy, legal theory and the social sciences. This course integrates philosophical theories of property rights with social scientific perspectives on social cooperation and economic perspectives on private law. It explores the implications of recent work in these areas for broader questions about economic inequality, the fairness of market outcomes, constitutional limitations on state authority, and the proper balance between private control and public regulation.

Prerequisite: Two Philosophy courses, or permission of the instructor.
Distributive: Dist:TMV

PHIL 50.15 - Neuroethics

Instructor: Roskies

The brain is the seat of who we are. This course will examine ethical issues that arise from our growing understanding of the brain, and our consequent ability to monitor and manipulate it. We will discuss timely issues such as cognitive enhancement, the ethics of brain interventions, drugs, and neural gene therapies, and the possibility of mindreading. Later in the course we will examine the ways in which our growing knowledge of the biological basis of moral cognition may or may not have effects on our moral theorizing.

Prerequisite: Two Philosophy courses, or permission of the instructor.
Distributive: TMV

PHIL 50.17 - Global Expressive Rights

Does the right to free speech have boundaries? Philosophical defenses of the right to free speech, developed in the context of the town square and the printing press, have yet to catch up with the revolution in communication brought about by the Internet. Technological innovations such as social media have made it possible to communicate instantaneously with hundreds of millions of people around the world and have, for purposes of regulating speech, rendered national boundaries virtually irrelevant. There is now an urgent need to determine how to assess and protect the values of free speech in this global context. Questions we will discuss include: Is there a universal human right to freedom of expression? If so, what is the philosophical basis for it? What are its limits? Does it protect racist hate speech as well as political dissent? How should the different free speech regimes currently in effect in different countries be reconciled in cases of conflict?

Prerequisite: Two Philosophy courses, or permission of the instructor.
Distributive: TMV

PHIL 50.18 - Animal Minds

This course focuses on questions about the minds of nonhuman animals. We will consider what kind of thought, if any, is possible for beings that lack language. Can animals have propositional thought? What limits are there on the contents of nonlinguistic thought? We will also consider other aspects of mentality: Can animals feel pain? Can they suffer? Are they conscious? Finally, we will consider the ethical implications of the answers we find to the above questions.

Prerequisite: Two Philosophy courses, or permission of the instructor.
Distributive: TMV

PHIL 50.20 - The Social Mind

This course addresses the question of how we understand other people’s behaviour. It examines contemporary philosophical theories concerning how we think about another’s thoughts, and related questions such as whether this ability is unique humans, universal across cultures, and how it may develop. The course is strongly interdisciplinary, drawing on sources from developmental psychology, neuroscience and anthropology, to support philosophical arguments. However, no prior knowledge of these fields is required to take the course.

Prerequisite: Two Philosophy courses, or permission of the instructor.
Distributive: TMV
PHIL 50.21 - Current Research in Social/Political Philosophy

What kind of society should we aim to have? And why should we aim to have that kind of society as opposed to some other kind? And are there objectively right answers to these two previous questions, or are there ultimately only answers that are correct relative to a given social/historical framework? These three abstract questions have long been at the heart of social/political philosophy, from Aristotle and Plato to the present day. They are also questions that matter tremendously to a wide range of citizens in our increasingly globalized world: a world in which different societies, with different cultures, different social/political structures, and different moral values come into increased contact with other. This course will be focused on these three interconnected questions. It will be an advanced discussion-based seminar, and will involve multiple visiting speakers. All students will be expected to have at least two previous courses in philosophy or in political theory.

Prerequisite: Two Philosophy courses, or permission of the instructor.

Cross-Listed as: GOVT 86.30
Distributive: TMV

PHIL 50.22 - Value

Instructor: Walden

What is it for something to be valuable or disvaluable? Are there irreducible truths about value? Are knowledge and achievement per se valuable? Or can their value ultimately be explained by the value of happiness? Are persons valuable in a way that cannot be captured by the sum total of their happiness, knowledge, and the like? What role should truths about value play in ethics as a whole?

Prerequisite: Two Philosophy courses, or permission of the instructor.

Distributive: TMV

PHIL 50.23 - Virtue Ethics

Contemporary virtue ethics arises out of a long and illustrious history in which ethics focuses on moral character traits. Do virtues (e.g. honesty, courage) exist? If so, what are they? Are they dispositions grounded in nature, traits acquired by education and training, or some combination of both? How are virtues related to practical deliberation, action and emotions? How are virtues related to human flourishing? How promising is virtue ethics relative to other approaches in normative ethics?

Prerequisite: Two Philosophy courses, or permission of the instructor.

Distributive: Dist:TMV

PHIL 50.24 - Moral Epistemology

Ethical disagreements range from the ethics of abortion to foundational questions about the basic structure of ethics (such as whether or not consequentialism is true). What is the significance of such disagreements for deciding what to believe in ethics? Do moral disagreements provide support for moral skepticism? How, if at all, can we make progress in ethical inquiry? Parallel questions, as they arise in other domains (e.g. mathematics, political philosophy, and epistemology itself) will be examined.

Prerequisite: Two Philosophy courses, or permission of the instructor.

Distributive: Dist:TMV

PHIL 50.25 - Moral Sentimentalism

Sentimentalists believe that moral judgments are based on affective states—roughly, emotions—and that the institution of morality is in some sense a construction out of these states. What are the origins of moral approbation and disapprobation? Is there such a thing as a “moral sense”? What role does sympathy or empathy play in moral psychology? How are moral sentiments related to practical deliberation? Are moral judgments the product of reason or passion? How do complex moral attitudes evolve? What role do social forces play in shaping moral sentiments? Is there empirical evidence for or against sentimentalism? What are the implications of moral sentimentalism for non-cognitivist approaches to moral discourse? Readings will include both classic sentimentalist texts of the 18th Century—Shaftesbury, Hutcheson, Hume, and Smith—and their latter-day descendants.

Prerequisite: Two Philosophy courses, or permission of the instructor.

Distributive: Dist:TMV

PHIL 50.26 - Philosophy and the Quantum World

Many striking claims have been made on the basis of quantum mechanics—that the future is undetermined, that an object can be in two places at once, that consciousness has a special causal role, that the future can affect the past, and so on. Quantum mechanics is an incredibly powerful theory; but it is also a deeply troubled theory, and it is far from obvious what it says. In this course we will study quantum theory, its central difficulty (the measurement problem), and options for avoiding the difficulty. We will also evaluate philosophical claims that have been made on the basis of quantum mechanics. No acquaintance with modern physics will be presupposed.

Prerequisite: Two Philosophy courses, or permission of the instructor.

Distributive: Dist:TMV
PHIL 50.27 - Categories
What is there? What are the most fundamental kinds of beings and how are they related to nonfundamental beings? Is it possible to develop a system of categories to identify the highest genera of being and to map the basic structure of reality? Do categories sort extramental entities or concepts or cognitive structures? Are they determined by logic or language? Philosophy is rich with competing attempts to develop categorical systems of reality, cognition, and meaning. This course will examine both historical and contemporary approaches to categories and their importance, including skeptics of the entire undertaking. Authors to be considered may include Plato, Aristotle, Aquinas, Ockham, Suárez, Kant, Frege, Husserl, Heidegger, Ryle, Chisholm, Strawson, Dummett, Westerhoff, Lowe, and Brandom.
Prerequisite: Two Philosophy courses, or permission of the instructor.
Distributive: Dist:TMV

PHIL 50.28 - Philosophy of Time
In this seminar we will explore the nature of time and temporal phenomena. Topics include: Does time pass? Do the past and future exist? What light does special relativity shed on the nature of the present? Is an object fully present at a time, or only a temporal part of it? What explains the temporal asymmetries of our experience? Could the world be fundamentally non-temporal?
Prerequisite: Two Philosophy courses, or permission of the instructor.
Distributive: Dist:TMV

PHIL 50.30 - Freedom of Expression
What does it mean to express oneself? Are there special reasons not to limit people’s freedom of expression? If protecting freedom of expression is profoundly important, does this mean that even hate speech (for example) must be protected? What limits can there be? These are some of the questions we will take up in this class. The first part of the course will study foundational questions about the nature and value of freedom of expression. The second part of the course will then examine specific topics including obscenity, pornography, hate speech, privacy, and corporate speech. We will conclude with a critical discussion of several recent Supreme Court decisions on freedom of expression.
Prerequisite: Two Philosophy courses, or permission of the Instructor.
Distributive: Dist:TMV

PHIL 50.31 - Classics of Modern Aesthetics
This course introduces students to philosophical aesthetics and the philosophy of art through some of the central works of those fields from the 18th Century onwards. Potential questions include: the nature of aesthetic pleasure, the special features of aesthetic judgments, the beautiful and the sublime, the moral potential of art, the relationship between art and freedom, the characteristic aims of art, what makes an experience aesthetic, and the role of symbolism in the arts.
Prerequisite: Two Philosophy courses, or permission of the instructor.
Distributive: Dist:TMV

PHIL 50.32 - Love and Respect
Instructor: Rosario
Morality seems to involve distinctive attitudes toward other people-distinctive ways of feeling and regarding other people. What are these distinctive attitudes of moral consideration? In this course we examine two candidates: love and respect. We will consider both the question of what these attitudes ultimately involve, when and why they are merited, and the prospects for moral systems built around them.
Prerequisite: Two Philosophy courses, or permission of the instructor.
Distributive: Dist:TMV

PHIL 50.33 - Necessity and Possibility
Instructor: Thomasson
Modal talk is central to a great range of philosophical discussions, in areas from ethics to metaphysics to philosophy of mind and philosophy of science. But talk about what is possible or necessary is puzzling. For, as Hume noted, we never seem to observe anything like necessity in the world. Can talk about what is necessary or possible be true or false? If so, are there parts of reality (other possible worlds, or essences or modal properties of this world) that make it true? Or should modal talk be understood as doing something other than attempting to describe features of the universe? And how can we come to acquire modal knowledge—given that we don’t seem to observe modal facts? This course will examine a range of positions in the metaphysics and epistemology of modality.
Prerequisite: Two Philosophy courses, or permission of the instructor.
Distributive: Dist:TMV

PHIL 50.34 - Experiencing Time
Instructor: Kulvicki
Perplexity about the nature of time has evolved in lock step with worries about temporal experience. Somehow, we experience time passing, we differentiate now from later and before, and we do all of this while passing through time. Experience of time can be a window onto time itself,
but that window might be muddy. Perhaps we fail to understand time because of how we experience it, or perhaps the best way to understand time is to attend to how we experience it.

Prerequisite: Two Philosophy courses, or permission of the instructor.

Distributive: Dist:TMV

**PHIL 50.35 - Mind, Language, and Morality**

Instructor: Plunkett and Phillips

This course examines questions about the connection between mind, language, and normative domains such as morality, politics, and law. For example: how should we understand normative language that seems to be fundamentally about prescribing ways of acting, rather than about describing reality? Are moral judgments more a matter of emotion, or of belief? Can we reconcile a commitment to moral objectivity with our best scientific understanding of moral thought and talk? This course will engage such questions from a fundamentally interdisciplinary perspective, engaging with work from philosophy, cognitive science, linguistics, and psychology. In so doing, we will explore how empirical work can inform philosophical inquiry, and how philosophical inquiry can continue to guide ongoing research in the cognitive sciences. Students will be encouraged to work in interdisciplinary teams to create their own co-authored research.

Prerequisite: Two Philosophy courses, or permission of the instructor.

Cross-Listed as: COCO 031 COGS 11.03

Distributive: Dist:TMV

**PHIL 50.36 - Propaganda**

Instructor: Thomas

Communication pushes people around. Sentences, stories, pictures, graphs, and maps can all convey information. But they can also convince, enthrall, enrage, (dis)empower, and (de)humanize. This course focuses on how communicative acts and ideologies have this power. It considers some linguistic, political, epistemological, psychological, and aesthetic aspects of such acts. And it considers examples of the phenomenon as diverse as political ads, literature, film, painting, pornography, slurs, compliments and even course syllabi.

Prerequisite: Two Philosophy courses, or permission of the instructor.

Distributive: Dist:TMV

This seminar examines leading proposals for understanding self-consciousness, self-knowledge, and their significance in the philosophy of mind, philosophy of action, and theories of the self. We will address questions such as these: How are ‘I’-thoughts properly conceived? Are they irreducible, or is there some way in which they can be explained in other terms? In what sense, if any, are you directly acquainted with your own states of mind? Is self-knowledge perceptual? Is it constitutive of one’s status as a rational being? How should our answers to these and related questions affect how we conceive of the self and its capacities?

Prerequisite: Two Philosophy courses, or permission of the instructor.

Distributive: Dist:TMV

**PHIL 60 - Foreign Study in Philosophy I**

Instructor: University of Edinburgh staff.

Credit for this course is awarded to students who have successfully completed a Philosophy course at the University of Edinburgh while a member of the Dartmouth Foreign Study Program at the University of Edinburgh.

Prerequisite: Two Philosophy courses, or permission of the instructor.

Distributive: TMV

**PHIL 61 - Foreign Study in Philosophy II**

Instructor: University of Edinburgh staff.

Credit for this course is awarded to students who have successfully completed a Philosophy course at the University of Edinburgh while a member of the Dartmouth Foreign Study Program at the University of Edinburgh.

Prerequisite: Two Philosophy courses, or permission of the instructor.

Distributive: TMV

**PHIL 80 - Culminating Experience in Philosophy**

This course may be offered in any term and the content varies. Although intended primarily for students majoring in Philosophy, properly qualified students from other departments may be admitted. In every case admission requires the permission of the instructor.

Prerequisite: Requires the permission of the instructor.

Distributive: TMV

**PHIL 80.01 - Kant's Critique of Pure Reason**

A close study of this epoch-making work, which has set the agenda for many sub-fields of philosophy since its publication in 1781. Kant observes that philosophy, in contrast to mathematics and natural science, cannot point to any results that are acknowledged by all able practitioners. Thus, philosophy has made no
I. MAJORS AND THE MINOR OPEN TO THE CLASSES OF 2023 AND EARLIER

progress. Kant proposes a method and foundation for philosophy that will change that.
Prerequisite: Requires the permission of the instructor.
Distributive: TMV

PHIL 80.05 - Metametaphysics
In this course, we will examine the nature and methods of metaphysics. Are ontological debates genuine debates, or do at least some of them involve pseudo-questions or merely terminological disputes? If they are genuine questions, how can we best find answers to them—or must the answers remain unknowable? Is there a privileged conceptual system for revealing the true ‘structure of reality’? We will address these and other questions, with texts from Carnap and Quine through to the present.
Prerequisite: Requires the permission of the instructor.
Distributive: Dist:TMV

PHIL 80.06 - Images!
This course uses tools from the philosophy of language, philosophy of mind, and philosophy of art to understand non-linguistic representation and its significance. Topics include the nature of depiction, pictorial realism, mental imagery, maps, diagrams, and models.
Prerequisite: Requires the permission of the Instructor.
Distributive: TMV

PHIL 80.12 - Free Will, Responsibility and the Brain
Do we have free will? Does brain science show that we do or do not? How does moral responsibility depend on freedom? Can we be responsible if we are merely physical mechanisms? Can we blame people for their actions? This course will explore the philosophical questions and neuroscientific literature regarding free will, and will address the implications of this debate for law and society.
Prerequisite: Requires the permission of the instructor.
Distributive: TMV

PHIL 80.13 - Love, Respect, and Moral Obligation
A survey of closely connected questions about the attitudes of love and respect, as well as the distinctive moral duties associated with each. Questions will include: What is distinctive about the attitudes of love and respect? Do we have universal duties of respect for all persons? If so, what do these duties entail for us? How is the partiality of an attitude like love to be reconciled with the impartiality of respect?
Prerequisite: Requires the permission of the instructor.
Distributive: TMV

PHIL 80.14 - Kant on Being, Goodness, and Beauty
This course will cover Kant’s accounts of what it is to judge of something that it is, that it is good, and that it is beautiful. By far the most time will be devoted to the first of these accounts (his so-called theoretical philosophy), since it serves as a foundation for all of the rest. Coverage of the latter two will focus on how all three accounts are unified in a single system of philosophy.
Prerequisite: Requires the permission of the instructor.
Distributive: TMV

PHIL 80.15 - Epistemic Normativity
This seminar is on foundational issues in contemporary epistemology, focusing on questions about the nature and grounds of epistemic normativity. Possible topics include: the relationship between epistemic rationality and reasons for belief, whether or not epistemic justification is ultimately dependent on our psychologies or practical interests, the relationship between truth and epistemic justification, and the bearing of general metanormative theorizing on our understanding of normativity within epistemology.
Prerequisite: Requires the permission of the instructor.
Distributive: TMV

PHIL 80.16 - Plato’s (Super)Naturalism
Platonists, ancient and contemporary alike, commit themselves to the existence of abstract, nonphysical, intelligible beings (e.g. numbers, properties, propositions) in addition to concrete, spatiotemporal, perceptibles (e.g. horses, vases, mountains). For Plato, in particular, changeless, intelligible beings are metaphysically and epistemologically prior to changing, perceptibles. The supernatural is prior to the natural. We will attempt to reconstruct and to assess (a) Plato’s reasons for positing and privileging supernatural entities; (b) his view of how, if at all, the “two worlds” interact; (c) his view of how, if at all, we are to understand or to explain the natural in terms of the supernatural; and (d) the prospects for “natural science” as Plato understands them.
Prerequisite: Requires the permission of the instructor.
Distributive: TMV

PHIL 80.17 - Unity, Necessity, Infinity: Themes from Leibniz
This seminar is a study of three great philosophical topics in Leibniz’s work and their contemporary counterparts.
Prerequisite: Requires the permission of the instructor.
Distributive: TMV
PHIL 80.18 - Beauty
Beauty is the preeminent aesthetic value, and plumbing its depths is one of philosophy's oldest occupations. Is beauty an objective feature of the world or merely "in the eye of the beholder"? How do we judge something to be beautiful? What is the relationship between beauty and pleasure? Can art be beautiful? Can nature? What is the relationship between beauty and other values, like justice and virtue? Readings may include Plato, Aristotle, Plotinus, Augustine, Shaftesbury, Hutcheson, Hume, Kant, Schiller, Hegel, Schopenhauer, Nietzsche, G. E. Moore, Iris Murdoch, Mary Mothersill, Arthur Danto, and Alexander Nehamas.
Prerequisite: Requires the permission of the instructor.
Distributive: TMV

PHIL 80.19 - Quine
W.V.O. Quine was one of the most influential and systematic philosophers of the 20th century. His insights have had deep and lasting effects on epistemology, philosophy of science, philosophy of language, metaphysics and philosophy of logic. In this class we will work through some of Quine’s most influential papers and arguments, and will try to understand the underlying systematic commitments of his views.
Prerequisite: Requires the permission of the instructor.
Distributive: TMV

PHIL 80.20 - Controversies in Feminist Philosophy
This seminar explores controversies in contemporary feminist philosophy over such issues as pornography and prostitution, sexual coercion and consent, the social construction of gender, and the intersections of gender with race, class, sexual orientation, disability, and other group-based identities.
Prerequisite: Requires the permission of the instructor.
Distributive: Dist:TMV

PHIL 80.21 - Philosophical Methodology
What does philosophical inquiry involve? What should it involve? What are the best ways to make progress in philosophy? Are the best methods for making progress in one area of philosophy (e.g. metaphysics) different from the best methods in another area (e.g. ethics)? Does the idea of philosophical progress even make sense? This course will address these and other questions about the nature of philosophy and philosophical methodology. Possible approaches to be discussed include conceptual analysis, philosophical naturalism, genealogy, ideology critique, phenomenology, thought experiments, and the a priori.
Prerequisite: Requires the permission of the instructor.
Distributive: Dist:TMV

PHIL 80.22 - Secondary Qualities
Secondary qualities – colors, sounds, smells, tastes, and touches – raise important problems in the philosophy of mind, epistemology and metaphysics. For many reasons, they seem less objective, and more tied to experience, than the traditionally primary qualities like shapes and masses do. Would colors exist in a world without color perceivers? Would sounds exist without hearers? How do the problems with understanding color relate to those for taste, touch and smell? How are secondary qualities related to primary qualities? This course will consider both historical and contemporary attempts to grapple with the primary/secondary quality distinction.
Prerequisite: Requires the permission of the instructor.
Distributive: Dist:TMV

PHIL 80.23 - Philosophy and the Quantum World
Instructor: Lewis
Many striking claims have been made on the basis of quantum mechanics—that the future is undetermined, that an object can be in two places at once, that consciousness has a special causal role, that the future can affect the past, and so on. Quantum mechanics is an incredibly powerful theory; but it is also a deeply troubled theory, and it is far from obvious what it says. In this course we will study quantum theory, its central difficulty (the measurement problem), and options for avoiding the difficulty. We will also evaluate philosophical claims that have been made on the basis of quantum mechanics. No acquaintance with modern physics will be presupposed.
Prerequisite: Requires the permission of the instructor.
Distributive: Dist:TMV

PHIL 80.24 - The Real, the True, and the Vaguely
What is truth? What conception of reality does truth involve? Should we think of truth or reality as transcending the limits of our evidence? Should we conceive of them as always tied to a perspective? Is truth an all-or-nothing matter, or might there be borderline cases? Could there be no definite fact of the matter about the way the world is? We’ll address such questions using historical and contemporary sources.
Prerequisite: Requires the permission of the instructor.
Distributive: Dist:TMV

PHIL 80.25 - Imagination
Instructor: Thomas
The study of imagination has a long, rich philosophical history. Recently, there has been an explosion of interest in the topic. In this course, we will consider efforts to understand what imagination is and what role imagination
plays in the cognitive and emotional lives of experiencers, inquirers, and agents. How is imagination related to perception, belief, pretense, supposition, and desire? What role does imagination play in emotions and in actions? How free is imagination? Can we imagine the impossible? What do we learn about imagination by considering how we engage (or are resistant to engage) in fictional imaginings? How do imagination and creativity interact? Can we rely on imagination to learn or to come to know something new? If so, how? If not, why not? Readings will be drawn from both historical and contemporary sources.

Prerequisite: Requires the permission of the instructor.

Distributive: Dist:TMV

PHIL 80.26 - Conceptual Ethics and Conceptual Engineering
Instructor: Thomasson
Some have argued that a central and legitimate job of philosophy involves conceptual ethics and conceptual engineering: that is, work in determining what sorts of language or concepts we should use, and how we should use them. In this course we will examine the motivations for thinking of philosophy in this way. We will go on to consider questions such as: How is conceptual engineering possible, and how could it lead to philosophical progress? To what extent can past philosophical debates be reconceived as involved in conceptual negotiation? What are the signs that conceptual (re-)engineering is needed? How can and should this sort of work be done? What view(s) of concepts are involved in undertaking this work—and is it better to think of this work at the conceptual or linguistic level? What criteria can and should we employ in evaluating concepts, or conceptual systems? Is conceptual engineering even possible—and if so, how can we do it?

Prerequisite: Requires the permission of the instructor.

Distributive: Dist:TMV

PHIL 80.27 - Marx and Marxism
An introduction to the thought of Karl Marx and themes from his work. Areas of focus may include Marx’s account of alienation and exploitation, his materialist theory of history, his critique of liberalism, his theory of ideology, his conception of freedom and morality and Marxist analyses of culture. Particular attention will be paid to Marx’s relevance to contemporary questions in social and political philosophy.

This advanced seminar is designed to be a culminating experience for majors in Philosophy, although properly qualified students in other disciplines may also be admitted.

Prerequisite: Requires the permission of the instructor.

Distributive: Dist:TMV

PHIL 80.28 - Reasons, Value, and Well-Being
Many otherwise divergent moral theories agree that we have reason to create and sustain value (or “the good”). How should we understand the concept that plays this central role in ethics? Might there actually be two different concepts that are often called by the same name? We face many questions about which sorts of things (pleasure, knowledge, virtue, and beauty) have intrinsic or final value. Well-being plays a central role in theories of value. What is well-being? And what distinguishes it from ‘impersonal’ values, if there are any?

This advanced seminar is designed to be a culminating experience for majors in Philosophy, although properly qualified students in other disciplines may also be admitted.

Prerequisite: Requires the permission of the instructor.

Distributive: Dist:TMV

PHIL 80.29 - The Ethics of Neuroscience
This course delves deeply into some of the main questions in neuroethics. We will focus on selected issues in the ethics of neuroscience, including cognitive and moral enhancement, disorders of consciousness, and the ethics of neural interventions. Readings will include both philosophical work in neuroethics and relevant seminal papers in neuroscience.

This advanced seminar is designed to be a culminating experience for majors in Philosophy, although properly qualified students in other disciplines may also be admitted.

Prerequisite: Requires the permission of the instructor.

PHIL 87 - Research in Philosophy
The purpose of Philosophy 87 is to provide opportunity for a student to do advanced work on a topic that the student has studied in a regularly offered course, or to study a topic not normally covered in a regularly offered course. In order to enroll in Philosophy 87, a student must prepare a brief (one page) proposal which describes what the student wishes to study and accomplish by taking this research course. All proposals for Philosophy 87 must be reviewed by the faculty of the Department after having been provisionally approved by the faculty member who is the prospective director. This must be done before the beginning of the term in which the course is to be taken. May be taken for more than one course credit, but at most, one election will count toward satisfaction of the requirements of the major. The staff.

Prerequisite: Requires the permission of the Chair.

PHIL 89 - Honors Program I
Open only to Philosophy senior majors who are participating in the Honors Program. The Honors Program
is designed for qualified students interested in doing intensive and individualized work in philosophy. Only those students who have successfully completed the Honors Program are eligible to receive major standings of Honors or High Honors. The program is divided into three stages: the Junior Honors Seminar, preparation and submission of a thesis proposal, and Honors thesis writing. All students who register for the Philosophy Major and who expect to have the necessary cumulative averages (3.50 in Philosophy and 3.33 overall) are invited to join the Junior Honors Seminars. In order to be accepted for Honors thesis writing, a student must successfully complete a Junior Honors Seminar, maintain or attain by the end of the Junior year the required grade point averages, and have a thesis proposal approved by the Philosophy Department by the end of the term in residence prior to commencement of thesis writing.

To complete a two-term thesis, qualified students are enrolled in PHIL 89 for the fall term and PHIL 90 for the winter term of their senior year. In extraordinary cases, a student may be permitted to write a winter-spring or fall-winter thesis. In such cases, students are expected to consult with the Chair of the department during the junior year and to request special accommodations when submitting their senior thesis proposals. Only one term of the Honors Program may count towards satisfying the major requirements. Honors Program grades are assigned retroactively at the end of Spring term.

Students are awarded one course credit for successful completion of this course at the end of the third term of study. Students subsequently register for PHIL-090 and continue with their coursework into a third term. Students do not register for a third term. A final grade will replace the “ON” for both PHIL-089 and this course upon completion of this course at the end of the third term of coursework.

Prerequisite: Requires the permission of the Chair.

PHIL 90 - Honors Program II

Open only to Philosophy senior majors who are participating in the Honors Program. The Honors Program is designed for qualified students interested in doing intensive and individualized work in philosophy. Only those students who have successfully completed the Honors Program are eligible to receive major standings of Honors or High Honors. The program is divided into three stages: the Junior Honors Seminar, preparation and submission of a thesis proposal, and Honors thesis writing. All students who register for the Philosophy Major and who expect to have the necessary cumulative averages (3.50 in Philosophy and 3.33 overall) are invited to join the Junior Honors Seminars. In order to be accepted for Honors thesis writing, a student must successfully complete a Junior Honors Seminar, maintain or attain by the end of the Junior year the required grade point averages, and have a thesis proposal approved by the Philosophy Department by the end of the term in residence prior to commencement of thesis writing.

Students are awarded one course credit for successful completion of this course. Students who have registered for PHIL-089 register for this course and continue with their coursework into a third term. Students do not register for a third term. A final grade will replace the “ON” for both PHIL-089 and this course upon completion of this course at the end of the third term of coursework.

Prerequisite: Requires the permission of the Chair.

Physical Education

Haldeman Family Interim Director of Athletics and Recreation: Peter Roby

Joann Brislin, Senior Associate Athletic Director for Physical Education and Recreation; Heather Somers, Associate Athletic Director Clubs Sports and Intramurals; Hugh Mellert, Director Zimmerman Fitness Center and the Fitness and Life Improvement Program (FLIP).

Temporary Adjustment to the Physical Education Requirement

Due to extenuating circumstances caused by the COVID-19 pandemic, including impacts on students' schedules and ongoing concerns about virus transmission, the College has revised the Physical Education (PE) requirements for students graduating in the 2021-2022, 2022-2023, 2023-2024, and 2024-2025 academic years as follows:

2021-2022 academic year: All PE requirements are waived for students graduating in 2021 summer, 2021 fall, 2022 winter, and 2022 spring.

2022-2023 academic year: All PE requirements are waived for students graduating in 2022 summer, 2022 fall, 2023 winter, and 2023 spring.

2023-2024 academic year: The swim test has been waived for students graduating in 2023 summer, 2023 fall, 2024 winter and 2024 spring. The number of required PE courses has been reduced to 1 PE courses for students graduating in these terms.

2024-2025 academic year: The swim test has been waived for students graduating in 2024 summer, 2024 fall, 2025 winter and 2025 spring. Students graduating in these terms are required to complete 2 PE courses.

Note these adjustments are contingent upon the student's graduation term, not class year. Contact Registrar@Dartmouth.edu with any questions.

The purpose of the Physical Education Department is to provide students with the opportunity to experience a variety of activity courses and, in turn, to appreciate the importance of the healthy body/healthy mind connection. It is our goal to introduce undergraduates to a wide range of
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Students who participate in an intercollegiate, club sport or the Marching Band may receive credit for that activity during the terms in which they participate. The Outdoor Programs Office and Dartmouth Outing Club offer a variety of classes, activities and clubs. Participation in many of the COSO dance groups may also provide the opportunity for PE credit.

**Physical Education Activities**

Sports skills and fitness classes include cardio and aerobics classes, barre fusion, yoga, spinning, strength training, pilates, martial arts, zumba, modern dance, ballroom and swing dance, skating, golf, fly fishing, tennis, table tennis, beginning swimming, racquetball, squash, DartFit and RAD. Taking advantage of the Dartmouth Skiway and Dartmouth Yacht Club, ski and snowboard classes are offered in the winter and sailing classes in the summer.

OPO and DOC offerings include kayaking, canoeing, wilderness first aid, hiking, mountain biking, rock climbing, cross country skiing, slacklining, organic farming, summer surfing and overnight camping trips.

Some non-activity courses are also offered through Physical Education including Learning at Dartmouth, and Thriving at Dartmouth.

**Intramural Athletics**

The Intramural Program is open to the entire student body. Competition in more than thirty activities is organized for three divisions female, male, and co-rec and Leagues that are competitive or recreational in nature. Teams in the different seasonal activities are organized by residence halls, fraternities, sororities, House communities, groups of friends, affinity groups, graduate students, staff, faculty, and administrators. It is the goal of the Intramural Program to organize a constructive, recreational program that provides sporting opportunities for every student, and encourages a spirit of participation, camaraderie and sportsmanship.

**Physics and Astronomy - Undergraduate**

Chair: Kristina A. Lynch


To view Astronomy Undergraduate courses, click here.  (p. 584)

To view Physics Undergraduate courses, click here.  (p. 586)

To view Physics and Astronomy Graduate requirements, click here.  (p. 802)

To view Astronomy Graduate courses, click here.  (p. 803)

To view Physics Graduate courses, click here.  (p. 804)

**Courses for Students in the Humanities and Social Sciences**

The following courses are especially recommended for students not majoring in one of the sciences: PHYS 1/2 and PHYS 5, and ASTR 1 and ASTR 2/3.

**Requirements for the Major in Physics**

Prerequisite: MATH 3, MATH 8, MATH 13, and MATH 22 or MATH 23 or PHYS 82.02; PHYS 13 and PHYS 14. Students with advanced placement may substitute PHYS 15 and PHYS 16 for PHYS 13 and PHYS 14.

Students completing a major in physics are required to take a minimum of eight courses in physics, including PHYS 19, PHYS 40, PHYS 41, PHYS 43, PHYS 44 [ENGS 72 may be substituted], PHYS 50 and two electives including the culminating experience. Students taking PHYS 15 may substitute a third elective for PHYS 19. Students taking ENGS 72 instead of PHYS 44 must take MATH 23 or ENGS 22.

The major requires one upper-level laboratory course: PHYS 47, PHYS 48, PHYS 76 or ASTR 61. Elective courses are PHYS 30, PHYS 31, PHYS 47, PHYS 48, ASTR 15, ASTR 19 or ASTR 25, and all physics and astronomy courses numbered in the sixties or higher.

Courses numbered in the forties may be taken in any order. Students planning graduate study in physics or another science are encouraged to take PHYS 66, PHYS 76, PHYS 90 and other advanced courses in physics and astronomy. Graduate courses in physics and astronomy are open to qualified undergraduates. Students should consult the Undergraduate Advisor about additional courses in mathematics and other science departments.

Students are required to complete a culminating activity in the major. For the physics major this requirement may be satisfied by receiving credit for one of the following courses: PHYS 68, Introductory Plasma Physics; PHYS 72, Introductory Particle Physics; PHYS 73, Introductory Condensed Matter Physics; PHYS 74, Space Plasma Physics; PHYS 77, Introduction to General Relativity and
Gravitation; PHYS 76, Methods of Experimental Physics; PHYS 82, Special Topics Seminar; ASTR 74, Astrophysics; ASTR 75, High Energy Astrophysics; ASTR 81, Special Topics in Astronomy; PHYS 87, Undergraduate Research, or any PHYS or ASTR course numbered 100 or above. The culminating experience is included in, not in addition to, the eight courses required for the major. Graduate courses taken as part of the culminating experience may only be used toward the undergraduate degree.

All major programs require an average GPA of 2.0 in all courses counted toward the major, including prerequisites.

Students who plan to complete an ambitious physics major suitable for graduate school in physics should take PHYS 13 and PHYS 14 in the freshman year, combined with PHYS 19 either spring term first year or fall term sophomore year, or they should take PHYS 15 and PHYS 16 in the first year, in all cases taking MATH 13 and MATH 22 or MATH 23 as soon as their math preparation allows. Any of these combinations allows the student to start taking the intermediate courses (PHYS 40-41-43-44) in the sophomore year and to start taking advanced courses in the junior year. Those students beginning physics in the sophomore year can, however, easily complete the major. Note that PHYS 15 is intended for students who had calculus-based classical mechanics in high school, and students must pass a placement exam in order to take it. Entering students taking PHYS 13 in the Fall quarter must have placement into MATH 8 or higher.

Students who plan to complete an ambitious physics major suitable for graduate school in physics should take PHYS 13 and PHYS 14 in the freshman year, combined with PHYS 19 either spring term first year or fall term sophomore year, or they should take PHYS 15 and PHYS 16 in the first year, in all cases taking MATH 13 and MATH 22 or MATH 23 as soon as their math preparation allows. Any of these combinations allows the student to start taking the intermediate courses (PHYS 40-41-43-44) in the sophomore year and to start taking advanced courses in the junior year. Those students beginning physics in the sophomore year can, however, easily complete the major. Note that PHYS 15 is intended for students who had calculus-based classical mechanics in high school, and students must pass a placement exam in order to take it. Entering students taking PHYS 13 in the Fall quarter must have placement into MATH 8 or higher.

Students should inquire about using PHYS 82.02 to replace MATH 22/23.

Typical programs are outlined below. A physics major may be completed with almost any Dartmouth Plan attendance pattern.

First-year students with no advanced placement can do an ambitious physics major and might follow the following example program:

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>MATH 3</td>
<td>MATH 8</td>
<td>MATH 13</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PHYS 13</td>
<td>PHYS 14</td>
</tr>
<tr>
<td>Subsequently</td>
<td>MATH 22 or MATH 23</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>PHYS 19</td>
<td></td>
</tr>
</tbody>
</table>

The intermediate courses PHYS 40, 41, 43, 44 can be started as soon as winter term of the sophomore year.

First-year students with advanced placement in mathematics qualify for taking Physics 13 fall term and might follow the following example program:

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>MATH 8 or 11</td>
<td>MATH 13</td>
<td>MATH 22 or MATH 23</td>
</tr>
<tr>
<td>Winter</td>
<td>PHYS 13</td>
<td>PHYS 14</td>
<td>PHYS 19</td>
</tr>
</tbody>
</table>

First-year students with advanced placement in physics and mathematics qualify for Physics 15-16 and might follow the following example program:

<table>
<thead>
<tr>
<th>Year</th>
<th>Fall</th>
<th>Winter</th>
<th>Spring</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>MATH 8 or 11</td>
<td>MATH 13</td>
<td>MATH 13 or MATH 22</td>
</tr>
<tr>
<td>Winter</td>
<td>MATH 11</td>
<td>13</td>
<td>or MATH 23</td>
</tr>
<tr>
<td>Spring</td>
<td>PHYS 15</td>
<td>PHYS 16</td>
<td>PHYS 31</td>
</tr>
</tbody>
</table>

In either case, MATH 22 or MATH 23 could be taken fall term of the sophomore year, concurrently with PHYS 43. The intermediate courses PHYS 40, 41, 43, 44 can be started as early as first-year spring (40), or in the sophomore year.

**The Modified Physics Major**

A modified physics major may be desirable for students interested in a broad range of careers such as medicine, the health professions, public policy, or journalism. The prerequisites for the modified major are the same as those for the physics major, and may include the prerequisites of the other department. The modified major consists of ten additional courses, of which at least six must be in the Department of Physics and Astronomy. Courses selected in other departments (science or otherwise) should form a unified whole with the physics courses, and should draw on and relate to a physics background. It is also possible to modify the physics major with courses outside the science division, subject to these same general guidelines. Students are required to complete a culminating activity in the major. The culminating experience requirements for the modified physics major are the same as the physics major. A written rationale explaining the intellectual coherence of the proposed program of courses, approved by the Undergraduate Advisor, is required in all cases. Interested students are urged to consult the Undergraduate Advisor.

**Requirements for the Engineering Physics Major**

The Department of Engineering Sciences and the Department of Physics and Astronomy offer a major in Engineering Physics. This major features a 5/5 split in courses, unlike a modified major which requires six courses from one field and four from the other.
The prerequisite courses for the Engineering Physics major are MATH 3, MATH 8, MATH 13, MATH 23; PHYS 13, PHYS 14; CHEM 5; and COSC 1 and COSC 10 or ENGS 20 (p. 270).

The Engineering Physics major is a ten-course program consisting of three Engineering Sciences core courses (ENGS 22, ENGS 23, ENGS 24); three Physics core courses (PHYS 19, PHYS 40, PHYS 43 [Students taking PHYS 15 and PHYS 16 should substitute a third physics elective for PHYS 19]); and four electives, two from each department. Two electives must be selected from the following list: ENGS 25, ENGS 33, ENGS 34; PHYS 50, PHYS 68, PHYS 90; PHYS 73 or ENGS 131; PHYS 66 or ENGS 64 or ENGS 120; PHYS 44 or ENGS 72. The other two electives may be courses from the Engineering Sciences Department numbered above 20, excluding ENGS 80 and ENGS 87, or courses from the Physics and Astronomy Department which fulfill the straight physics major.

A culminating experience is required in the major which can be taken instead of one of the electives above. It must be one of the following: a project or a thesis, ENGS 86, ENGS 88 or ENGS 89*; an advanced engineering sciences course with a significant design or research project, normally taken in the senior year, chosen from an approved list (consult the Engineering Sciences Department for the most recent list); or PHYS 68, PHYS 72, PHYS 73, PHYS 74, PHYS 76, PHYS 82, or PHYS 87.

*ENGS 89 must be taken as part of the two-course design sequence ENGS 89/ENGS 90. Prior to enrollment in ENGS 89, at least six engineering sciences courses must be completed: ENGS 21 plus five additional courses numbered 22 - 76.

All major programs require an average GPA of 2.0 in all courses counted toward the major, including prerequisites.

For more information contact Professor LaBelle (Physics and Astronomy) or Professor Liu (Engineering Sciences).

Students who major in Engineering Physics or major in Physics with an Engineering Sciences minor can enter the professionally-accredited Bachelor of Engineering (B.E.) program at the Thayer School and complete the requirements for the B.E. degree with an additional year of study beyond the A.B. Students interested in pursuing the B.E. are strongly encouraged to work closely with their major advisor to choose their elective courses.

A detailed description of the B.E. requirements can be found on the Engineering Sciences ORC page.

Requirements for the Major in Astronomy

Prerequisite: MATH 3, MATH 8, MATH 13; and two courses from the introductory physics sequence: PHYS 3 and 4, or PHYS 13 and 14, or PHYS 15 and 16.

Students completing a major in astronomy are required to take ASTR 15, ASTR 25, ASTR 61 and one elective from ASTR 74, ASTR 75, ASTR 81, ASTR 87. Two additional courses must be selected from Physics and Astronomy courses numbered 19 or above. The remaining two courses may be selected from any Physics and Astronomy course numbered 19 or above, or given the interdisciplinary nature of astronomy, two suitable advanced courses from other science departments may be taken as part of the astronomy major, subject to department approval.

Graduate courses in Physics and Astronomy are open to qualified undergraduates. Students are required to complete a culminating activity in the major. For the astronomy major this requirement may be satisfied by receiving credit for one of the following courses: ASTR 74, Astrophysics; ASTR 75, High Energy Astrophysics; ASTR 81, Special Topics in Astronomy; ASTR 87, Undergraduate Research in Astronomy; PHYS 77, Introduction to General Relativity and Gravitation. The culminating experience is included in, not in addition to, the eight courses required for the major.

All major programs require an average GPA of 2.0 in all courses counted toward the major, including prerequisites.

Requirements for the Major in Astronomy

Physics Minor
Prerequisite: MATH 3, MATH 8, MATH 13, MATH 22 or MATH 23, or equivalents; PHYS 13 and PHYS 14 (or PHYS 15 and PHYS 16).

Four courses are required in addition to the prerequisites. One of these must be PHYS 19 except that students taking PHYS 15 and PHYS 16 may substitute another elective for PHYS 19. The other three must be chosen from physics courses numbered 30, 31 or 40 and above, and/or astronomy 15, 19 or 25 and above, at least one of which must be numbered above all of these.

Note that PHYS 19 has PHYS 14 as prerequisite.

Astronomy Minor
Prerequisites: MATH 3 and MATH 8 or equivalents; PHYS 13 and PHYS 14 (or PHYS 3 and PHYS 4, or PHYS 15 and PHYS 16).

Four courses are required in addition to the prerequisites. One of these must be ASTR 15. The other three are ASTR 25, ASTR 61, and ASTR 81. Any physics or astronomy course numbered 19 or above may be substituted for one of these three.

Note that ASTR 25 has PHYS 14 as prerequisite.

Requirements for the Mathematical Physics Minor
This minor is sponsored by the faculty in Mathematics and Physics. It may be combined with majors in either of the two departments, or any other department. Students majoring in both physics and mathematics cannot take the minor.

Prerequisites: PHYS 13, PHYS 14, PHYS 19 (or PHYS 15 and PHYS 16), and PHYS 40, MATH 3, MATH 8, MATH 13, and MATH 22 or MATH 24.

Requirements: A total of four additional courses are required. These must include MATH 23 and MATH 46. Mathematics majors must choose two elective physics courses from the following list; physics majors must choose two elective mathematics courses; students majoring in a department other than mathematics or physics must choose one mathematics and one physics course.

PHYS 30, PHYS 31, PHYS 41, PHYS 43, PHYS 44, PHYS 47, PHYS 50, PHYS 66, PHYS 72, PHYS 75, PHYS 77, PHYS 90. [Note PHYS 50 requires PHYS 40.]

MATH 31 or MATH 71, MATH 42, MATH 43, MATH 53, MATH 54, MATH 63, MATH 66, MATH 73, MATH 76.

An advanced undergraduate or graduate level physics or mathematics course may be substituted, with permission from the physics or mathematics department undergraduate advisor. No course may count towards both the major and minor.

Off Campus Study

The Department of Physics and Astronomy sponsors a foreign study program (FSP) in South Africa during alternate winter terms. Twelve to sixteen students will be selected for the program; MATH 3 an introductory physics course (Physics 3, or 13 or 15), and one introductory astronomy course (Astronomy 2, or 3, or 15, or 25) are prerequisite courses. Students on the FSP get credit for three courses: PHYS 31.03, ASTR 61, and ASTR 81 (all of which count towards the astronomy or physics major). The FSP consists of five weeks of intensive course work on the campus of the University of Cape Town, followed by one week spent at the South African Astronomical Observatory (SAAO), which will include data taking, followed by independent research study on the Cape Town campus, using the data collected, under close supervision of a faculty member. Dartmouth owns approximately a ten percent stake in the Southern African Large Telescope, which is at SAAO and is the largest optical telescope in the Southern Hemisphere. For further information, see Professors Chaboyer or Thorstensen.

Honors Program in Physics Or Astronomy

An honors student carries out a program of independent work in physics or astronomy under the supervision of a member of the faculty. This independent work may be done in the student’s senior year, but often begins earlier. It may be experimental, theoretical, or observational. A written report on the completed work is required.

Any major meeting the college requirements (as described in the Regulations section of this catalog) is eligible for admission to the departmental Honors Program. To enter the program eligible students should obtain the permission of the Department and of the faculty member who is to supervise the work. Seniors will receive information on the application process and subsequent deadlines early Fall term. Early consultation with the Department is encouraged.

All departmental Honors are considered individually and awarded by a vote of the faculty. To be considered for High Honors the student must defend an Honors Thesis based upon the independent work before a faculty committee. Students with an average in the major of 3.75 or higher who do not complete an honors thesis may be considered for Honors, as distinct from High Honors, provided they have completed three courses beyond the minimum number required for the major from among the list of courses numbered 60 or higher. One of the courses must be PHYS 76, PHYS 82, ASTR 81 or PHYS 87.

All Honors students must meet the minimum requirements of the regular major, and, ordinarily, should take physics, astronomy, and mathematics courses beyond those requirements. Special programs may be worked out for eligible students who wish to include extensive work in a field related to physics or astronomy.

Courses for Graduate Credit

Physics and astronomy courses offered for graduate credit are those numbered 61 or higher. The Department of Physics and Astronomy will allow graduate credit for any course offered by the Departments of Biochemistry, Biological Sciences, Chemistry, Earth Sciences, Engineering Sciences, or Mathematics that receives graduate credit from that department.

ASTR - Astronomy - Undergraduate Courses

To view Physics Undergraduate courses, click here. (p. 586)

To view Astronomy Undergraduate requirements, click here. (p. 581)

To view Physics and Astronomy Graduate requirements, click here. (p. 802)

To view Astronomy Graduate courses, click here. (p. 803)

To view Physics Graduate courses, click here. (p. 804)

ASTR 1 - Exploration of the Solar System

Instructor: Chaboyer
An introduction to the study of the solar system and exoplanets. Topics to be discussed include phases of the moon and eclipses, formation and evolution of the early solar system, Terrestrial and Jovian planetary surfaces and atmospheres, moons and small bodies in the solar system, and exoplanets. Course material will include results from recent planetary spacecraft missions. Labs include making observations with telescopes.

Distributive: Dist:SLA

**ASTR 2 - Exploring the Universe**

Instructor: Hickox

A survey of contemporary knowledge of the nature and the evolution of stars, galaxies and the universe. Topics include stellar evolution, the origin of the elements, the deaths of stars, black holes, the structure of our Galaxy, other galaxies, dark matter, the expanding universe and the big bang. Physical processes underlying these phenomena are discussed. No student may receive credit for both ASTR 2 and ASTR 3. Identical to ASTR 3, but without the observing laboratory.

Distributive: Dist:SCI

**ASTR 3 - Exploring the Universe, with Laboratory**

Instructor: Hickox

A survey of contemporary knowledge of the nature and the evolution of stars, galaxies and the universe. Topics include stellar evolution, the origin of the elements, the deaths of stars, black holes, the structure of our Galaxy, other galaxies, dark matter, the expanding universe and the big bang. Physical processes underlying these phenomena are discussed. Students will make observations with radio and optical telescopes. Supplemental course fee required. No student may receive credit for both ASTR 2 and ASTR 3. Identical to ASTR 2, but with an observing laboratory.

Distributive: Dist:SLA

**ASTR 19 - Habitable Planets**

Instructor: Newton

Is the Earth unique, or are there other planets in the universe which can support life? This question has been pondered for thousands of years, and humanity is now on the cusp of being able to answer this question. This course will examine the question of planetary habitability, focusing on the processes which made the Earth habitable, and the likelihood of finding other habitable planets in the universe. Topics to be covered include the creation of the elements, the formation of structure in the universe, planetary system formation, the habitability of Earth and other bodies in the solar system, the future habitability of Earth, and the prospects of finding habitable planets around other stars.

Prerequisite: MATH 3

Cross-Listed as: EARS 019

Distributive: Dist:SCI

**ASTR 25 - Galaxies and Cosmology**

Instructor: ASTR Visitor

This is a course in physical cosmology. The first half builds the Universe from the bottom up, focusing on galaxies. Topics include galaxy classification dynamics, clustering, dark matter, and evidence for the large scale homogeneity. The second half builds the Universe from the top down, developing the Big Bang cosmology. Topics include FRW equation classical cosmological tests, nucleosynthesis, and cosmic microwave background.

Prerequisite: PHYS 14 or permission of the instructor.

Distributive: Dist:SCI

**ASTR 61 - Observational Techniques in Astronomy**

Instructor: ASTR Visitor

The fundamental techniques of observational astronomy. Topics include detectors, photometry, spectroscopy, data acquisition and analysis.

Prerequisite: ASTR 2, ASTR 3 or ASTR 15.

Distributive: Dist:SLA

**ASTR 74 - Astrophysics**

A survey of the processes which generate radiation detected by astronomers, and how astronomers interpret observations to understand the Universe. Topics include radiative transfer, blackbody radiation, bremsstrahlung, synchrotron radiation, inverse Compton scattering, atomic and molecular spectra. Applications will include emission from neutron stars, accretion disks surrounding black holes, stellar atmospheres, intergalactic gas and the cosmic microwave background.
Prerequisite: PHYS 14 or PHYS 16; and PHYS 19 or PHYS 24 or PHYS 40; and ASTR 2 or ASTR 3 or ASTR 15, or permission of instructor.

Distributive: Dist:SCI

**ASTR 75 - High Energy Astrophysics**

The physics and observations of black holes, neutron stars, white dwarfs, supernova remnants, and extragalactic objects through x-ray, gamma-ray, and cosmic rays.

Prerequisite: PHYS 19 and ASTR 25 or the equivalent, or permission of the instructor.

Distributive: Dist:SCI

**ASTR 81 - Special Topics in Astronomy**

Instructor: Chaboyer, Hickox, Newton

Advanced study of a topic in observational astronomy, culminating in a one- to two-week observing session at a major research observatory.

**ASTR 81.01 - Observing in South Africa**

Instructor: Chaboyer, Hickox, Newton

This course is an advanced study of a topic in observational astronomy, including a one-week observing session at the South African Astronomical Observatory in Sutherland, South Africa. During their time at the observatory, students will have the opportunity to collect data for their observational project. At the completion of the observing, students will return to Cape Town where they will work in pairs, analyzing the data they obtained at the observatory. The course will culminate with a written presentation of the results of the students' research project. Specific research topics will vary and could range from studies of exoplanets, stars or other galaxies, depending on faculty and student interest.

**ASTR 81.02 - Special topics in Astronomy, with observing**

Instructor: Staff

This course is an advanced study of a topic in observational astronomy, including a one to two-week observing session at a major research observatory. During their time at the observatory, students will have the opportunity to operate a telescope and collect data for their observational project. At the completion of the observing, students analyze some of the data they obtained at the observatory. Specific research topics will vary and could range from studies of exoplanets, stars or other galaxies, depending on faculty and student interest.

**ASTR 87 - Undergraduate Research in Astronomy**

Instructor: Staff

Intensive individual work on an observational or theoretical problem in astronomy or cosmology under the guidance of a staff member.

Prerequisite: permission of the Chair.

**PHYS - Physics - Undergraduate Courses**

To view Astronomy Undergraduate courses, click here. (p. 584)

To view Physics Undergraduate requirements, click here. (p. 581)

To view Physics and Astronomy Graduate requirements, click here. (p. 802)

To view Astronomy Graduate courses, click here. (p. 803)

To view Physics Graduate courses, click here. (p. 804)

**PHYS 1 - Understanding the Universe: From Atoms to the Big Bang, with Laboratory**

Instructor: Gleiser

An introduction to the evolution of physical theories and models of natural phenomena from ancient Greece to modern times. Topics include Pre-Socratic and Aristotelian natural philosophy; the scientific revolutions of Copernicus, Kepler, Galileo, and Newton, and the birth of mechanics; electromagnetism, thermodynamics, and the physics of light in the nineteenth century; the emergence of quantum mechanics and relativity theory; modern particle physics and the search for unification; the interface of particle physics and cosmology; and physics and its contexts (other sciences, worldviews, technologies, the Cold War). Students will carry out five biweekly laboratory experiments illustrating major discoveries. No student may receive credit for both Physics 1 and Physics 2. Identical to Physics 2, but with the laboratory.

Distributive: Dist:SLA

**PHYS 2 - Understanding the Universe: From Atoms to the Big Bang**

Instructor: Gleiser

No student may receive credit for both Physics 1 and Physics 2. Identical to PHYS 1, but without the laboratory.

Distributive: Dist:SCI

**PHYS 3 - General Physics I**

Instructor: Brown (fall), Blencowe (winter)

The fundamental laws and phenomena of mechanics, heat, wave motion, and sound, including relativistic concepts. The sequence Physics 3-4 is designed primarily for students who do not intend to take PHYS 19. One laboratory period per week.

Prerequisite: MATH 3.
I. MAJORS AND THE MINOR OPEN TO THE CLASSES OF 2023 AND EARLIER

Distributive: Dist:SLA

**PHYS 4 - General Physics II**
Instructor: Brown (winter), Lynch (spring)
The fundamental laws and phenomena of electricity, magnetism, and light, including quantum mechanical concepts; atomic and nuclear physics. One laboratory period per week.
Prerequisite: PHYS 3.

Distributive: Dist:SLA

**PHYS 5 - Physics for Future Leaders**
This class is an introduction to modern physics, the resulting technologies and social ramifications. Physics topics include radiation, energy, atomic and nuclear structures, relativity, waves and quantum mechanics. These in turn have led to modern technologies such as microwaves, radar, GPS, lasers, nuclear power and weapons. We may also examine MRIs, X-rays, digital cameras, quantum cryptography, semiconductors including computer chips and photovoltaics. This course aims to take some of the mystery out of these technologies so that a student can be an informed citizen as society debates the uses of these machines and devices. Finally, we look at potential future developments such as quantum computing and new energy technologies. No prior physics is required.
Prerequisite: MATH 8 or MATH 9 concurrently.

Distributive: Dist:TAS

**PHYS 7 - First-year Seminars in Physics**

**PHYS 13 - Introductory Physics I**
Instructor: LaBelle (fall), Caldwell (winter)
The fundamental laws of mechanics. Reference frames. Harmonic and gravitational motion. Thermodynamics and kinetic theory. PHYS 13, PHYS 14, and PHYS 19 are designed as a three-term sequence for students majoring in a physical science. One laboratory period per week.
Prerequisite: MATH 3 and MATH 8 (at least concurrently).

Distributive: Dist:SLA

**PHYS 14 - Introductory Physics II**
Instructor: Wright (winter), Millan, Mueller (spring)
Prerequisite: PHYS 13 and MATH 8, or permission of the instructor.

Distributive: Dist:SLA

**PHYS 15 - Introductory Physics I, Honors Section**
Instructor: Blencowe (fall), Rimberg (winter)
PHYS 15 and PHYS 16 is an alternative sequence to PHYS 13, PHYS 14 and 19 for students whose substantial background in physics and mathematics enables them to study the material at a faster pace than is possible in regular sections, and who are willing to devote correspondingly more work to the course. Admission criteria are described in the First Year, available from the Office of the Dean of Undergraduate Students. Classical dynamics of particles and rigid bodies. Special Relativity. Introduction to Quantum Mechanics including the wave-particle duality of radiation and matter, the Uncertainty Principle and the Schrödinger equation in one and three spatial dimensions. One laboratory period per week.
Prerequisite: MATH 8 or MATH 9 concurrently, and permission of the instructor.

Distributive: Dist:SLA

**PHYS 16 - Introductory Physics II, Honors Section**
Instructor: Liu
Prerequisite: PHYS 15 or permission of the instructor.

Distributive: Dist:SLA

**PHYS 19 - Relativistic and Quantum Physics**
Instructor: Walker
The general theme of this course is the wave-particle duality of radiation and matter, with an introduction to special relativity. Classical wave phenomena in mechanical and electromagnetic systems including beats, interference, and diffraction. Quantum aspects of electromagnetic radiation include the photoelectric effect, Compton scattering and pair production and annihilation. Quantum aspects of matter include DeBroglie waves, electron diffraction, and the spectrum of the hydrogen atom. The Schrödinger equation is discussed in one and three spatial dimensions.
Prerequisite: PHYS 14 and MATH 13, or permission of the instructor.

Distributive: Dist:SCI

**PHYS 30 - Biological Physics**
Instructor: Samkoe (winter), Brown (spring)
Introduction to the principles of physics and engineering applied to biological problems. Topics include the architecture of biological cells, molecular motion, entropic...
forces, enzymes and molecular machines, and nerve impulses.

Prerequisite: CHEM 5, PHYS 13 and PHYS 14 (or equivalent). PHYS 14 (or equivalent) may be taken concurrently. Students with strong quantitative skills who have taken PHYS 3 and PHYS 4 can enroll with permission of the instructor.

Cross-Listed as: ENGS 030
Distributive: Dist:TAS

PHYS 31 - Explore Physics!
Prerequisite: PHYS 13, PHYS 14 or PHYS 15, PHYS 16
Distributive: Dist:SCI

PHYS 31.01 - Nonlinear Dynamics of Physical Systems

Most problems introduced in introductory physics course are based on linear systems; the simple harmonic oscillator is a prime example. This course will instead focus on the dynamics of systems that are instead explicitly non-linear, as are the vast majority of physical systems in the real world; examples from real life include self-oscillators such as the human heart, exotic electrical devices such as the superconducting Josephson junction, and complex, chaotic phenomena such as weather. We will focus on using graphical techniques for figuring out the behavior of differential equations without actually solving them, frequently using Mathematica as a tool for numerics and visualization. Students will also be introduced to the art of making good physical approximations.

Distributive: Dist:SCI

PHYS 31.02 - Research Methods in 21st Century Physics and Astronomy
Instructor: Ramanathan

This course provides a structured introduction to some of the key methods used in 21st Century Physics and Astronomy Research. Student will learn how to perform a literature search, engage in hands-on experimental and/or computational research and use computational techniques for data analysis and modeling. Students will practice distinguishing between critical variables and background details and learn to summarize and present their results to different audiences. Ethics and researcher responsibilities will also be explored.

Distributive: Dist:SCI

PHYS 31.03 - Research Methods in 21st Century Astronomy in South Africa
Instructor: Chaboyer, Hickox, Newton

This course will introduce students to research methods used within astronomy, as well as to the cutting-edge research conducted in South Africa and its impact on South African society. Students will be introduced to modern tools used by astronomers, with an emphasis on hands-on practice using Python for scientific analyses. From guest lecturers and site visits, students will learn about science and society in South Africa. Offered as part of the Astronomy FSP.

Distributive: Dist:SCI

PHYS 31.04 - Research Methods in 21st Century Astronomy

Instructor: Blencowe (fall), Onofrio (spring)


Prerequisite: PHYS 15 or PHYS 19; and PHYS 14 or PHYS 16, or permission of the instructor.

Distributive: Dist:SCI

PHYS 40 - Quantum Physics of Matter
Instructor: Blencowe (fall), Onofrio (spring)

The differential and integral laws of electric and magnetic fields in vector form. Potential theory and boundary value problems. Maxwell's equations, the wave equation and plane waves.

Prerequisite: PHYS 15 or 19; and PHYS 14 or PHYS 16; or permission of the instructor.

Distributive: Dist:SCI

PHYS 41 - Electricity and Magnetism
Instructor: Lynch

The differential and integral laws of electric and magnetic fields in vector form. Potential theory and boundary value problems. Maxwell's equations, the wave equation and plane waves.

Prerequisite: PHYS 15 or 19; and PHYS 14 or PHYS 16; or permission of the instructor.

Distributive: Dist:SCI

PHYS 43 - Statistical Physics
Instructor: Rogers

Prerequisite: PHYS 15 or 19; and PHYS 14 or PHYS 16; or permission of the instructor.

Distributive: Dist:SCI

**PHYS 44 - Mechanics**

Instructor: Staff


Prerequisite: PHYS 15 or PHYS 19; and PHYS 14 or PHYS 16; and MATH 22 or MATH 23, or permission of the instructor.

Distributive: Dist:SCI

**PHYS 47 - Optics**

Instructor: Rimberg

This course covers geometrical, physical, and modern optics topics including the propagation, reflection, dispersion, and refraction of radiant energy; polarization, interference, and diffraction in optical systems; the basics of coherence theory, lasers, quantum optics, and holography. Applications of optical and laser science will be discussed. Lectures and laboratory work.

Prerequisite: PHYS 14 or PHYS 16 and MATH 13, or permission.

Distributive: Dist:SLA

**PHYS 48 - Electronics: Introduction to Linear and Digital Circuits**

Instructor: Stauth (fall), Odame (winter)

Principles of operation of semiconductor diodes, bipolar and field-effect transistors, and their application in rectifier, amplifier, waveshaping, and logic circuits. Basic active-circuit theory. Introduction to integrated circuits: the operational amplifier and comparator, to include practical considerations for designing circuits with off-the-shelf components. Emphasis on breadth of coverage of low-frequency linear and digital networks, as well as on high order passive and active filter design. Laboratory exercises permit "hands-on" experience in the analysis and design of simple electronic circuits. The course is designed for two populations: a) those desiring a single course in basic electronics, and b) those that need the fundamentals necessary for further study of active circuits and systems.

Prerequisite: ENGS 22, or equivalent background in basic circuit theory.

Distributive: Dist:TLA

**PHYS 50 - Introductory Quantum Mechanics**

Instructor: Ramanathan (fall), Onforio (spring)

An introduction to the basic concepts and formalism of quantum mechanics. Time-dependent and time-independent Schrödinger equation for a variety of systems in one and three spatial dimensions, bound and unbound states, quantum tunneling. Basics of Dirac notation and matrix formalism. Orbital and spin angular momentum, addition rules. Approximation methods: WKB and variational approach, time-independent perturbation theory.

Prerequisite: PHYS 40 and MATH 22 or MATH 23, or permission of the instructor.

Distributive: Dist:SCI

**PHYS 66 - Relativistic Electrodynamics**

Instructor: Liu

Classical electromagnetic radiation and relativistic electrodynamics. Topics include: electromagnetism and relativity; Maxwell stress-tensor; electromagnetic wave propagation in free space and media; radiation by charged particles; scattering; diffraction.

Prerequisite: PHYS 41 or permission of instructor.

Distributive: Dist:SCI

**PHYS 68 - Introductory Plasma Physics**

Instructor: Mueller

The physics of ionized gases with emphasis on the theory of waves and instabilities. Includes introduction to magnetohydrodynamics and kinetic theory of plasmas.

Prerequisite: PHYS 41 or permission of instructor.

Distributive: Dist:SCI

**PHYS 70 - Fourier Transforms and Complex Variables**

Instructor: Testorf

Survey of a number of mathematical methods of importance in Engineering and Physics with particular emphasis on the Fourier transform as a tool for modeling and analysis. Orthogonal function expansions, Fourier series, discrete and continuous Fourier transforms, generalized functions and sampling theory, complex functions and complex integration, Laplace, Z, and Hilbert transforms. Computational Fourier analysis. Applications to linear systems, waves, and signal processing.

Prerequisite: MATH 46 or ENGS 22, ENGS 23, or the equivalent.
PHYS 72 - Introductory Particle Physics
Instructor: Walker
Characterization of elementary particles and their interactions according to the standard model; leptons, quarks, gauge bosons, and the Higgs mechanism. Composite particles and their interactions. Methods of production and measurement of particles. Particle lifetimes and cross sections.
Prerequisite: PHYS 50
Distributive: Dist:QDS

PHYS 73 - Introductory Condensed Matter Physics
Instructor: Whitfield
Prerequisite: PHYS 43 and PHYS 50; PHYS 43 may be taken concurrently.
Distributive: Dist:SCI

PHYS 74 - Space Plasma Physics
Instructor: Staff
Plasma processes in the solar system. The solar cycle, solar flares, solar wind outflow and interaction with distinct types of planetary magnetospheres. Plasma waves, particle acceleration and generation of escaping electromagnetic radiation. Magnetosphere-ionosphere coupling, and ionospheric interaction with the neutral atmosphere.
Prerequisite: PHYS 66 or PHYS 68, or permission of the instructor.
Distributive: Dist:SCI

PHYS 75 - Quantum Computation and Information
Instructor: Ramanathan
Overview of basic ideas in classical and quantum computation. Concepts and physical realizations of quantum bits (qubits). Topics in quantum computation may include the Deutsch-Jozsa, quantum Fourier transform, Shor factorization and Grover search algorithms. Topics in quantum communication include quantum key distribution schemes and quantum teleportation. Issues relating to the foundations and interpretations of quantum mechanics will be revisited throughout the course.
Prerequisite: PHYS 15 or PHYS 19; or MATH 22; or permission of instructor.
Distributive: Dist:QDS

PHYS 76 - Methods of Experimental Physics
Instructor: Wright
Experiments emphasizing modern techniques and topics in physical measurements. Experiments will cover areas including condensed matter, particle and plasma physics, and such practical laboratory techniques as noise suppression, digital data acquisition, and operation of standard laboratory equipment.
Prerequisite: PHYS 40
Distributive: Dist:SLA

PHYS 77 - Introduction to General Relativity and Gravitation
Instructor: Caldwell
An introduction to Einstein's General Theory of Relativity. Topics: review of special relativity and spacetime diagrams; equivalence principle; coordinates and four vectors; the spacetime metric; particle motion from a variational principle, the geodesic equation; spacetime physics; redshift and time dilation in the solar system, gravitational lenses, black holes, the expanding universe, gravitational waves, time machines (closed timelike curves); the field equations of General Relativity, connecting spacetime curvature to energy and momentum.
Prerequisite: PHYS 44 and PHYS 41.
Distributive: Dist:SCI

PHYS 82 - Special Topics Seminar
Instructor: Mueller
This course surveys topics from linear algebra and differential equations, selected for their importance in upper-level physics courses. Topics from linear algebra will include complex numbers, systems of equations, matrices, vector spaces, and the eigenvalue problem. Topics from differential equations will include linear differential equations, series solutions, systems of differential equations, and partial differential equations (separation of variables). The course will serve as an alternate to the Math22/23/24 prerequisite for physics majors.
Prerequisite: MATH 3, MATH 8, AND MATH 13
I. MAJORS AND THE MINOR OPEN TO THE CLASSES OF 2023 AND EARLIER

**Distributive: Dist:QDS**

**PHYS 85 - Reading Course**
Reading course under the direction of a faculty member.

**PHYS 87 - Undergraduate Research**
Intensive individual work on an experimental or theoretical problem in physics or astronomy under the guidance of a staff member.

**PHYS 90 - Intermediate Quantum Mechanics**
Instructor: Gleiser

Prerequisite: PHYS 50

**Distributive: Dist:SCI**

**PHYS 92 - Physics of the Early Universe**
Instructor: Caldwell
An introduction to the study of the early universe, focusing on the interaction of nuclear and particle physics and cosmology, the so-called inner-space outer-space connection. After an investigation of the Robertson-Walker metric and its application to the Big Bang model, the course will address the following topics: thermodynamics in an expanding universe; nucleosynthesis (synthesis of light nuclei) and baryogenesis (origin of excess matter over antimatter); inflationary models of cosmology; primordial phase transitions; introduction to quantum cosmology.

Prerequisite: PHYS 41, PHYS 43, PHYS 44, PHYS 50 and ASTR 25 (recommended).

**Distributive: Dist:SCI**

**Psychological and Brain Sciences - Undergraduate**

Chair: B. Duchaine, Professor
Professor Emeritus G. Wolford; Professors A. Clark, D. Coch, B. Duchaine, R. Granger, J. Haxby, J. Hull, J. Taube, P. Tse, T. Wager, T. Wheatley; Associate Professors C. Cramer, D. Kraemer, A. Soltani, K. Smith, M. van der Meer; Assistant Professors L. Chang, E. Finn, J. Manning, M. Meyer, K. Nautiyal, C. Robertson, A. Stolk, V. Störmer, M. Thornton; Senior Lecturers M. Herman, R. Santulli, J. F. Pfister; Lecturers K. R. Clark, L. Dwiel, K. Finn, J. Jordan, A. Steel, S. Winter, K. Worth; Adjunct Professors R. Maue, J. Sargent; Adjunct Associate Professor M. Funnell; Adjunct Assistant Professor M. Detzer; Research Professor P. Cavanagh; Research Associate Professor Y. Halchenko; Research Assistant Professor W. Hudenko.

To view Psychological and Brain Sciences Undergraduate courses, click here.

To view Psychological and Brain Sciences Graduate requirements, click here.

To view Psychological and Brain Sciences Graduate courses, click here.

**Requirements for the Psychology Major**
Prerequisites: PSYC 1 (p. 592) and PSYC 10 (p. 593). Students must obtain a grade no lower than C in PSYC 1. Students who fail to obtain a C or better in PSYC 1 may still complete a major in Psychology in the event that they earn C or better in their next two Psychology courses. PSYC 10 may be taken concurrently with PSYC 1. As a course prerequisite to the major, PSYC 10 should be taken at or before the time of declaring the major; otherwise it must be taken in the first offering following sign-up for the major. Though we recommend against substituting, some other statistics courses are permitted as alternatives to PSYC 10 with permission, specifically: ECON 10 (p. 249), GOVT 10 (p. 411), MATH 10 (p. 505), QSS 15 (p. 608) and SOCY 10 (p. 653). AP statistics (MATH 10) may only be substituted if the departmental statistics placement test is also passed.

Requirements: The minimum major consists of one required course (PSYC 11 (p. 593)) and seven electives numbered above 20. At least two of these seven electives must be numbered in the 20s, one 50 or higher, and another 60 or higher; the 60 or higher requirement constitutes the Culminating Experience requirement in Psychology. Of the two courses in the 20s, one must come from the set PSYC 23 (p. 593), PSYC 24 (p. 594), or PSYC 25 (p. 594). The second must come from the set PSYC 21 (p. 593), PSYC 22 (p. 593), or PSYC 28 (p. 594) unless the student has credit for PSYC 6, in which case any additional PSYC course in the 20s will meet this requirement. PSYC 38 (p. 595) is an acceptable alternative to PSYC 28, and may alternatively fulfill this requirement. PSYC 88 (p. 605) may not be used to satisfy the 60 or above requirement.

With prior approval, credit for up to two electives may be transferred from another institution, but credit for courses numbered 50 and above must be obtained at Dartmouth. Transfer of credits must be approved by the Chair of the Departmental Undergraduate Committee and by the Registrar prior to taking the course(s). Certain graduate courses may be taken by qualified and advanced undergraduates if permission is obtained from the course instructor.
The course numbers have meaning. Courses numbered 10 and below do not carry major credit. Courses numbered in the 20s are introductions to particular sub-areas in psychology. Courses in the 30s, 40s, and 50s are more advanced than 20s level courses and generally have a narrower focus. Courses in the 60s are advanced laboratory courses. Courses in the 80s are upper level seminars. The Department recommends that majors take more upper level (50, 60, and 80 level) courses than the minimum requirement.

The Modified Major
The Psychology major cannot be modified. Students who wish to have Psychology as the secondary part of a Modified Major may do so, if the major forms a unified and coherent whole.

Requirements for the Minor
The Minor will consist of 6 courses: PSYC 1 (p. 592) (prerequisite) plus five additional courses numbered 11 or above 20. Two of the five must be numbered in the 50s or above. While two of the six may be transfers, transfers cannot count toward the 50 or above requirement.

Requirements for the Major and Minor in Neuroscience
See section ‘Neuroscience’ in this catalog for information regarding these major and minor programs.

Honors Program
Qualified students majoring in Psychological and Brain Sciences have the opportunity to participate in an Honors Program that provides individualized advanced instruction and research experience in psychology.

Individuals may apply for honors work as early as the spring term of their junior year, but not later than the end of the second week of fall term of their senior year. Eligibility for honors is a 3.30 average in the major and a 3.0 average overall. Students interested in doing honors work should consult the Department website for information and the required permission checklist.

To be awarded Honors at graduation, a student must fulfill the following requirements:

1. Satisfactorily fulfill all course requirements of the major and maintain at least a 3.30 major GPA.
2. By the last class day of the fifth week of the Winter term preceding the completion of the thesis, the student must submit a prospectus of their thesis work to the Department Undergraduate Committee. The prospectus shall include a brief description of the rationale for the research, methods used, analyses to be employed and implications of the expected results.
3. An acceptable thesis, based upon two terms of laboratory or field research that is carried out under the auspices of PSYC 89.01 (p. 606) and PSYC 89.02 (p. 606) and under the supervision of a department faculty member must be written. The Honors Thesis will entail an independent and individual project. Furthermore, the thesis must be read and approved by the student’s Thesis Committee. The Thesis Committee must include a regular member of the Department of Psychological and Brain Sciences faculty. The other individual, if not a regular member of PBS, must have an active academic appointment (e.g. Research Associate, Research Assistant Professor, Medical School faculty, faculty in other departments of the College, for instance). Either Committee member may serve as the primary advisor. The two members of the Thesis Committee may not be in the same laboratory. The Thesis Committee will read and evaluate the thesis and make recommendations to the Undergraduate Committee regarding the awarding of Honors or High Honors.
4. Honors students will present their research to departmental faculty and interested others during the latter part of the Spring term of their senior year.

Psychological and Brain Sciences Department Website
Please check the Department website at http://pbs.dartmouth.edu/ for further information, including updated course offerings, department events, and checklists to aid in planning a major, minor, or independent research.

PSYC - Psychological and Brain Sciences - Undergraduate Courses
To view Psychological and Brain Sciences Undergraduate requirements, click here. (p. 591)

To view Psychological and Brain Sciences Graduate requirements, click here. (p. 811)

To view Psychological and Brain Sciences Graduate courses, click here. (p. 812)

PSYC 1 - Introductory Psychology
Instructor: Duchaine and Wheatley, Meyer and Wager
This course provides an introduction to the scientific study of the mind, brain, and behavior. Emphasis is placed upon the basic psychological processes of perception, consciousness, cognition, memory, and motivation as well as development, personality, individual differences, social behavior, and psychological disorders.
Distributive: Dist:SOC

PSYC 6 - Introduction to Neuroscience
Instructor: Winter, Finn
This course provides students with an introduction to the fundamental principles of neuroscience. The course will include sections on cellular and molecular neuroscience,
neurophysiology, neuroanatomy, and cognitive neuroscience. Neuroscience is a broad field that is intrinsically interdisciplinary. As a consequence, the course draws on a variety of disciplines, including biochemistry, biology, physiology, pharmacology, (neuro)anatomy and psychology. The course will begin with in-depth analysis of basic functions of single nerve cells. We will then consider increasingly more complex neural circuits, which by the end of the course will lead to an analysis of the brain mechanisms that underlie complex goal-oriented behavior.

Distributive: Dist:SCI

**PSYC 7 - First-Year Seminars in Psychology**
Instructor: Pfister, Granger

**PSYC 10 - Experimental Design, Methodology, and Data Analysis Procedures**
Instructor: Soltani, Hull, Worth, Pfister

This course covers the various ways in which empirical information is obtained and analyzed in psychology and neuroscience. Statistical techniques covered will include ways to describe center and spread, t-tests, linear regression, chi-square, and complex analysis of variance (ANOVA), as well as use of a common statistical program to analyze data. This course is the preferred preparation for PSYC 11, Laboratory in Psychological Science.

Prerequisite: PSYC 1 or PSYC 6 (may be taken concurrently). Because of the large overlap in material covered, no student may receive credit for more than one of the courses ECON 10, GOVT 10, MATH 10, PSYC 10, QSS 15, or SOCY 10 except by special petition. Cannot be taken concurrently with PSYC 11.

Distributive: Dist:QDS

**PSYC 11 - Laboratory in Psychological Science**
Instructor: Cramer, K.R. Clark, Manning

Progress in psychological science depends upon the analysis and thoughtful interpretation of results from well-designed experiments. In this course you will learn how to think critically about this research process, first through a series of guided readings and exercises. In the second part of the course you will design, carry out, and analyze your own original experimental research project as part of a small team and then present your work in a public forum and as a written journal-style manuscript.

Prerequisite: PSYC 1 or PSYC 6, and PSYC 10. Cannot be taken concurrently with PSYC 10.

Distributive: Dist:SLA

**PSYC 15 - Impact Design**
Instructor: Wheatley and Loeb

This innovative, team-based, project course is about impact—what it is, how you experience it, how you create it, how you measure it. We focus on designing products and experiences for community partners as part of the Social Impact Practicum program. Rather than looking at how we can solve a problem, we look at how we can create delight for users. Students will learn how to combine core principles from human psychology with the tools of design to create products and user experiences that promote engagement, adoption, and learning. Past community partners have included the Hartford Autism Regional Program (HARP) and the Aging Resource Center.

Cross-Listed as: COSC 29.04
Distributive: Dist:TMV

**PSYC 21 - Perception**
Instructor: Tse

Our senses are our windows to the world, and the scientific study of the senses is one of the oldest sub-disciplines in experimental psychology. This course introduces students to the fundamental workings of our senses of vision, hearing, touch, taste and smell. The course includes careful consideration of experimental methodology as well as content.

Prerequisite: PSYC 1 or PSYC 6
Distributive: Dist:SCI

**PSYC 22 - Learning**
Instructor: Dwiel

Learning is a fundamental process of behavior change that is essential for survival. In this course, we will approach the study of learning primarily focusing on Pavlovian and instrumental conditioning procedures. Generally, this course focuses on the psychological principles that underlie learning, memory, and behavior. In addition, we will also cover material examining the neural systems underlying these processes. The main goal of this course is for students to develop a strong understanding of theory and research in the area of learning and behavior.

Prerequisite: PSYC 1 or PSYC 6
Distributive: Dist:SOC

**PSYC 23 - Social Psychology**
Instructor: Thornton

This course is an introduction to social psychological theory and research. Specific topics include perception of self and others (e.g., attitudes, emotions), interpersonal relations (e.g., attraction, altruism, conformity, aggression), and group dynamics (e.g., decision making, intergroup conflict). Within those contexts, emphasis is placed on how we construe situations around us and how those situations influence us in ways we may not realize.
Prerequisite: PSYC 1
Distributive: Dist:SOC

**PSYC 24 - Abnormal Psychology**
Instructor: Hudenko

This course explores various types of psychopathology, with a focus on characteristics, diagnosis, etiology, and treatment. We will examine psychopathology from a variety of perspectives and will discuss current research on specific disorders. The experience of psychopathology will be illustrated using case histories and video footage to better understand the realities and challenges for those who are diagnosed.

Prerequisite: PSYC 1
Distributive: Dist:SOC

**PSYC 25 - Developmental Psychology**
Instructor: Herman, Worth

We will examine the social and cognitive development of children from infancy to adolescence. We will also consider the implications of psychological research and theory for parenting, and for social and legal policies that affect young children. Film and videotape materials will be used to illustrate examples of infant and child behavior.

Prerequisite: PSYC 1
Distributive: Dist:SOC

**PSYC 28 - Cognitive Psychology**
Instructor: Störmer

This course provides a comprehensive overview of cognitive psychology, the scientific study of mental processes: how people acquire, store, transform, use, and communicate information. Topics may include perception, attention, language, memory, reasoning, problem solving, decision-making, and creativity.

Prerequisite: PSYC 1, PSYC 6, or COSC 1
Distributive: Dist:SOC

**PSYC 32 - Introduction to Programming for Psychological Scientists**
Instructor: Manning

Studying the mind is an increasingly computational endeavor. Modern psychological laboratories use computers to administer experiments, collect data, analyze data, create figures, write papers, and share their work with the world. Related and analogous approaches are used in fields as diverse as finance, art, biomedical science, law, and many others. In this course we will use hands-on training experiences, problem sets, and mini research projects to introduce students to a sampling of the computational tools employed in cutting-edge psychological research. A focus of the course will be on “open science” practices that enable scientists to share and clearly document each aspect of the scientific process.

Prerequisite: PSYC 11 required, MATH 1 or MATH 3 recommended.
Distributive: Dist:TAS

**PSYC 35 - Cellular and Molecular Neuroscience**
Instructor: Hoppa

This course focuses on cellular and molecular mechanisms that underlie the development and function of the nervous system. This includes aspects of gene expression (transcription, mRNA metabolism) and cell biology (cellular transport and cytoskeleton, cell cycle, signal transduction, and signaling pathways) as they pertain to neurons and glia. Lectures supplemented by in-class discussion of primary research articles will also serve as an introduction to microscopic, electrophysiological, molecular biological, and genetic techniques and animal models used to study the nervous system and neurological disorders. Not open to students who have received credit for PSYC 046 or BIOL 049.

Prerequisite: PSYC 6
Cross-Listed as: BIOL 035
Distributive: Dist:SCI

**PSYC 36 - Systems Neuroscience with Laboratory**
Instructor: van der Meer, Taube, Smith

The primary focus of this course is the physiological basis of behavior from a systems perspective. Such topics as localization of function, neural models, and the physiological bases of sensory/motor systems, learning/memory, and spatial cognition are considered. The laboratory introduces the student to the anatomy and physiology of the mammalian central nervous system and to some of the principal techniques used in systems and behavioral neuroscience. Not open to students who have received credit for PSYC 065.

Prerequisite: PSYC 6
Distributive: Dist:SLA

**PSYC 37 - Behavioral Neuroscience**
Instructor: A. Clark, Nautiyal

We are complex organisms that perform complex behaviors. In this course we will explore the neurological underpinnings of behavior. Some topics we will cover include the neural control of life-sustaining behaviors such as eating and drinking. In addition, we will explore how the brain contributes to the display of other complex behaviors such as sexual behavior and responding to stress. We will use the text, primary research articles and case studies to examine the relationship between brain and
behavior. Not open to students who have received credit for PSYC 045.

Prerequisite: PSYC 6
Distributive: Dist:SCI

**PSYC 38 - Cognitive Neuroscience**
Instructor: Robertson

In Cognitive Neuroscience, we survey the neural basis of a variety of cognitive phenomena that are the heart of human experience: how we perceive and attend to the world around us; how we remember and forget our experiences; how we listen, communicate, and understand through language and music; how we reason, evaluate, and decide under risk and uncertainty; how we represent our thoughts and those of others; how we lose and gain consciousness through sleeping and waking; how we develop, learn, and adapt. To do this, we take a multidisciplinary approach that spans disciplines including psychology, neuroscience, computer science, biomedical engineering, and philosophy. We will also learn about classic and cutting-edge scientific methods including psychophysics, functional neuroimaging, electrophysiology, optogenetics, machine learning, and brain-computer interfaces. All in all, this course represents a blend of neurobiology (brain) and psychology (behavior). It aims to provide necessary background knowledge for scientific frontiers related to understanding human neuroscience and behavior.

Not open to students who have received credit for PSYC 027.

Prerequisite: PSYC 1 or PSYC 6
Distributive: Dist:SCI

**PSYC 40 - Introduction to Computational Neuroscience**
Instructor: Granger

Your brain is composed of low-precision, slow, sparsely-connected computing elements, yet it outperforms any extant computer on tasks ranging from perception to planning. Computational Neuroscience has as its twin goals the scientific understanding of how brains compute thought, and the engineering capability to reconstruct the identified computations. Topics in the class included anatomical circuit design, physiological operating rules, evolutionary derivation, mathematical analyses, and emergent behavior, as well as development of applications from robotics to medicine.

Prerequisite: One of: PSYC 1, PSYC 6, COSC 1, or ENGS 20.
Cross-Listed as: COGS 021 COSC 016
Distributive: Dist:SCI

**PSYC 43 - Emotion**
Instructor: Thornton

Emotions define human experience. When you ask someone how they are, they tell you how they are feeling. We formulate our life goals in terms of emotions, striving to obtain happiness, while avoiding regret. Emotions such as love, pride, contempt, and shame shape our social relationships, both as individuals and as groups. When our emotions go badly awry, we suffer debilitating mental illnesses such as depression and anxiety. Although emotions play a central role in our lives, studying them scientifically presents profound challenges. They seem intuitively hidden, elusive, messy, and hard to evoke or quantify in a laboratory. Despite these challenges, researchers have developed a thriving science of our emotional lives, which you will learn about in this course. We will begin by considering the origins of emotion, both biological and cultural. Subsequently we will examine how emotions manifest themselves in our bodies and brains, change dynamically over time, shape our social interactions, influence our cognition, and affect our mental health. Finally, we will consider ongoing theoretical debates in emotion science, and where the field could and should go next.

Prerequisite: PSYC 1 or PSYC 6
Distributive: Dist:SOC

**PSYC 44 - Psychology and Organizations**

Leadership and teamwork are among the most highly prized skills in today's businesses. This course will explore the psychological underpinnings of these and other organizational behaviors, including decision-making, communication, and conflict resolution. How do we understand leadership? How do power and status affect communication in a hierarchy? How can conflict lead to creativity? We will delve into the answers with a combination of reading and discussion, in-class role-plays and exercises, and project-based learning. Our goal is to advance an understanding of why people behave the way they do in workgroups and in organizations.

Prerequisite: PSYC 1
Distributive: Dist:SOC

**PSYC 50 - Issues in Neuroscience**

Courses with this number consider topics that bring to bear knowledge in the fields of psychology, neurology, and physiology. Topics are treated at an intermediate level and the focus will be on topics not covered in detail in Psychology 26, 45, and 65. The selection of issues is at the discretion of the instructor. Enrollment limited to 35 students.
Distributive: Dist:SCI
PSYC 50.01 - Neuroscience of Mental Illness  
Instructor: Funnell  
The goal of this course is to explore the neurological correlates of psychopathology. For each mental illness covered in the class, we will first review the characteristics and diagnostic criteria of the disorder and will then explore the neurological correlates in terms of etiology, manifestation, and treatment. We will examine evidence from a variety of sources, including neuroanatomical studies, neuroimaging experiments, and neurodevelopmental studies, with a focus on current research findings. Case histories and video footage will be used to illustrate the experience of psychopathology with the goal of elucidating the links between the brain and behavior.
Prerequisite: PSYC 6  
Distributive: Dist:SCI

PSYC 50.02 - Decision Making: Linking Behavior to Brain  
Instructor: Soltani  
In our daily lives we are faced with many decisions: what to eat for lunch, whether to spend the next hour on Instagram or on homework, or what courses to take next quarter. Some of those decisions require gradual deliberation while others can be made quickly. Nevertheless, to make any decision we rely on external information and what outcomes we expect from those decisions. Decisions are easy to make if information is complete and the outcomes are certain. But how does the brain combine different sources of partial information to make decisions in the face of uncertain outcomes? In this course we will examine decision making from both behavioral and neurobiological points of view. Specifically, we will learn about different methods used in psychology, economics, and neuroscience (e.g. operant conditioning, game theory, reinforcement learning, prospect theory, electrophysiology, neuroimaging) to study decision making at various levels, from cognitive processes to underpinning neural activity and mechanisms.
Prerequisite: PSYC 1 or PSYC 6  
Distributive: Dist:SCI

PSYC 50.07 - Exotic Sensory Systems  
Instructor: K. Finn  
Ever wonder what it’s like to be a cat, or a fish, or a bat, or an octopus? Without careful consideration of another animal’s sensory capacities, cognitive capabilities, and social situation, we risk inappropriately ascribing our own human characteristics and motivations to them when explaining their behavior (i.e. anthropomorphization). This course explores the “umwelts” or sensory self-worlds of non-humans, using concepts from information theory to deconstruct what they may be perceiving.
Prerequisite: PSYC 1 or PSYC 6, and PSYC 10  
Distributive: Dist:SCI

PSYC 50.08 - Neurobiology of Learning and Memory  
Instructor: Winter  
This course will discuss the neurobiology of learning and memory from cognitive, behavioral, and cellular neuroscience perspectives. The goal of the course is to better understand the neurobiological mechanisms and brain systems that underlie learning and memory processes. A fundamental understanding of membrane and synaptic potentials is strongly recommended.
Prerequisite: PSYC 6 or instructor permission  
Distributive: Dist:SCI

PSYC 50.09 - Motivation, Drugs, and Addiction  
Instructor: Smith  
This course will explore how the brain controls our motivation to pursue goals and how drugs of abuse hijack those systems. We will learn about some historical perspectives of motivation as well as modern neuroscience work showing how areas of the brain might contribute to motivations. In the process, we will explore in detail how narcotic drugs (opioids, stimulants, alcohol, cannabis) act in the brain and the mechanisms underlying the transition from drug use to addiction.
Prerequisite: PSYC 6  
Distributive: Dist:SCI

PSYC 50.10 - The Rhythmic Brain  
Instructor: van der Meer  
This course explores the physiological basis and functional relevance of oscillations, which are ubiquitous in the brain. Rhythmic pattern generators in specific neurons and circuits are essential for generating repeating movements such as breathing and walking; yet, oscillations are equally prominent in neural systems for sensation, cognition, and memory. Could it be that these rhythms are a fundamental building block of information processing in neural circuits? This course provides an introduction to the detection, analysis and interpretation of oscillations in the brain. Using these tools, we will survey the origin and functional role of oscillations in a variety of neural systems across animal and human species, and ask what general principles emerge.
Prerequisite: PSYC 21, PSYC 27, PSYC 28, or PSYC 38  
Distributive: Dist:SCI
PSYC 50.12 - Neuroscience of Stress
Instructor: Nautiyal
This course explores the neuroscience of stress, beginning with an overview of the neural and endocrine responses to a stressor, including their beneficial functions. Next, the course will cover a series of focused topics on how stress influences physiology, behavior and cognition, and how various physiological systems can influence the stress response. This includes an understanding of anxiety disorders, depression, and the susceptibility and resilience to stressors, as well as an examination of how stress affects learning and memory, immunity, and sex behavior. Topics also include how individual differences such as age, sex, and immunity can influence the stress response.
Prerequisite: PSYC 6 and one of the four core neuroscience classes, or instructor permission.
Distributive: Dist:SCI

PSYC 50.13 - Hemispheric Differences in the Human Brain
Instructor: Funnell
The goal of this course is to explore differences between the right and left hemispheres of the human brain. We will examine evidence from a variety of sources, including neuroanatomical studies, neuroimaging experiments, animal models, studies involving patients with unilateral brain lesions, and split-brain research, to characterize the nature of the structural and functional differences between the two hemispheres. We will also study the development of laterality (ontogenetic and phylogenetic) to better understand why the two hemispheres of the human brain are specialized for different functions.
Prerequisite: PSYC 6
Distributive: Dist:SCI

PSYC 50.14 - Functional Neuroimaging of Psychiatric Disorders
Instructor: Silbersweig
Functional brain imaging has revolutionized the study of systems-level behavioral neuroscience and psychiatric disorders, through the ability to localize and characterize distributed brain activity directly associated with perception, cognition, emotion and behavior in disorders where there are no gross brain lesions. This course will introduce students to translational neuroimaging methods at the interface of neuroscience, psychology and medicine. It will cover recent and ongoing advances in our understanding of the brain circuits underlying psychiatric disorders from structural and functional imaging studies. This course will introduce students to translational neuroimaging methods at the interface of neuroscience, psychology and medicine. It will cover recent advances and ongoing research in our understanding of the brain circuits underlying psychiatric disorders, as well as how these mechanisms facilitate rapid treatment. It will explore the implications of such knowledge for issues such as consciousness, meaning, free will, emotion, resilience, and religiosity. It will incorporate clinical observations, scientific data and readings, and examine future directions in brain-mind medicine.
Prerequisite: PSYC 1 or PSYC 6
Distributive: Dist:SCI

PSYC 51 - Issues in Information Processing
Courses with this number consider topics from the areas of perception, memory, cognition, and quantitative models from the point of view of information processing. Material is treated at an intermediate level on a set of issues not covered in Psychology 21 and 28. Selection of issues is left to the discretion of the instructor, but specific emphasis is given to methodology. Enrollment limited to 35 students.
Distributive: Dist:SCI

PSYC 51.01 - The Neuroscience of the mind-body problem
Instructor: Tse
Neuroscience has learned a great deal about how neurons function, and Psychologists have learned a lot about the contents and processes of the mind. But we lack a deep understanding of the bridge that must link these two sides of the "mind-body" problem. We do not yet fully understand (1) how information is processed, transformed and communicated by neurons, (2) how consciousness can be realized in physical neuronal activity, or (3) how mental events realized in physical brain events can be causal of subsequent mental and physical events. This course will focus on what is known about the neural code and the neural bases of consciousness, mental causation and free will and what is not yet understood. We will focus on reading original research articles and chapters from books that attempt to get at these deep and challenging conceptual and empirical issues. A particular focus will be the relationship of attentional processing to consciousness, and its neural bases. Students will be expected to write up critiques of readings, and present on topics of common interest.
Prerequisite: PSYC 6, PSYC 21, or PSYC 28
Distributive: Dist:SOC

PSYC 51.02 - Face Perception
Instructor: Haxby
Faces are one of the richest sources of information for non-verbal communication. Through faces we recognize identity and infer the emotional and mental states of others, as well as where they are directing their attention. This course will focus on the neural mechanisms for face perception and how these mechanisms facilitate rapid
extraction of cues that facilitate social interaction. Particular relevance will be put on the neural systems for representation of person knowledge. In addition to weekly readings, students will have a written exam at the end of the course.

**Prerequisite:** PSYC 1 or PSYC 6

**Cross-Listed as:** COGS 11.04

**Distributive:** Dist:SOC

### PSYC 51.09 - Human Memory

**Instructor:** Manning

Knowing how our brains organize and spontaneously retrieve memories is at the heart of understanding the basis of the ongoing internal dialog of our conscious thoughts. Put simply, our memories make us who we are. The field of human memory also has a practical side. For example, how much should we trust eyewitness testimony? Or, should you cram for tomorrow’s exam or get a good night’s sleep instead? We will examine a range of classic and cutting-edge experimental results and theories that form the foundation of our current understanding of how we learn and remember.

**Prerequisite:** PSYC 1 or PSYC 6

**Distributive:** Dist:SOC

### PSYC 51.12 - Visual Intelligence

**Instructor:** Störmer

How is our perceptual experience shaped by our memories, attention, and culture? When looking around the world, we have the impression that we perceive a true image that faithfully reproduces the physical properties of the world. However, perception is a construction of what’s really out there, and our visual system constantly makes smart guesses and complex inferences about what we are likely to be perceiving.

In this course, we will learn how our own memories, attention, and cultural background influence our perception of people, objects, scenes, and emotions; what optical illusions reveal about the visual system; what and why we forget certain things but remember others; what the failures of visual attention mean in real-life contexts (e.g., mammography, or the TSA), and how experience shapes our ability to see.

**Prerequisite:** PSYC 1 or 6; and PSYC 10

**Distributive:** Dist:SCI

### PSYC 51.13 - Psycholinguistics

**Instructor:** Wray

The deceptively simple tasks of perceiving and producing language require the performance of complicated and often overlapping functions at high speeds. How can we study the representations and processes that make language possible as they interact in the black box that is the human mind? The goal of this course is to provide a broad understanding of research focusing on how the human mind structures, stores and accesses linguistic information.

**Prerequisite:** LING 1 or COGS 1 or Instructor Permission

**Cross-Listed as:** LING 50.01, COGS 50.05

**Distributive:** Dist:SOC

### PSYC 51.14 - Sustainable Choices: Understanding Human Cognition To Save The Planet

**Instructor:** Soltani

Every choice we make in our daily life has an impact on the environment we live in and on life on earth in general. While perceiving this impact is impossible in most cases, the enormous human population and globalization make the cumulative impact of every simple choice very profound. In this multi-disciplinary course, we explore how human activities affect life on earth in terms of climate change, biodiversity, deforestation, pollution, etc., in order to learn about the intricate link between our everyday choices and eco-sustainability, as well as how physical and biological laws limit or improve our ability to be sustainable. This course is focused on learning about the impact of our choices as it is focused on learning about heuristics/biases that humans exhibit when making those choices and how these heuristics/biases emerge in the brain. The course brings together ideas from Neuroscience, Psychology, Economics, Physics, and Biology among other fields to teach students about how and to what extent decisions we face in everyday life, directly or indirectly, influence life on earth, and how negative impacts can be mitigated by understanding the neural bases of human decision making.

**Distributive:** Dist:SOC

### PSYC 52 - Issues in Learning and Development

Courses with this number consider several important sub-fields of learning and psychological development. Material is treated at an intermediate level on a set of issues not covered in Psychology 22 and 25. Selection of issues is left to the discretion of the instructor, but they will be selected with emphasis upon the psychological principles emerging from the study of humans and animals in the context of learning, early experience, and maturations. Enrollment limited to 35 students.

**Distributive:** Dist:SOC

### PSYC 52.04 - Adolescent Risk Behaviors: Corporate and Environmental Influences

**Instructor:** Sargent

Chronic health conditions (like cancer and heart disease) kill the majority of people worldwide. Those diseases
result, in part, from use of products—e.g., tobacco, alcohol, & convenience food—that are produced and marketed worldwide by multinational corporations. This course centers around how corporations influence unhealthy product consumption during childhood and adolescence. This course describes the theoretical basis for these influences, the science used to establish corporate products as a cause of youth behavior, and how governments try to limit the influence through regulation. The study will cover tobacco, alcohol, drug use, homicide/suicide, food/obesity, and risky sex.

Prerequisite: PSYC 1
Distributive: Dist:SOC

**PSYC 52.05 - Science and Pseudoscience in the Study of Human Behavior**

Instructor: Pfister

Do you only use 10% of your brain? Is low self-esteem a major cause of psychological problems? Does a positive attitude stave off cancer? Despite, in many cases, evidence to the contrary, many of us believe in ideas and statements about human behavior that influence our actions and relationships. Many of these ill-conceived beliefs have come to us through popular culture, media outlets, our friends and our, often faulty, intuition. This is a course dedicated to identifying many of these “psychomyths” and learning how to recognize pseudoscientific beliefs from those that are evidence-based.

Prerequisite: PSYC 1
Distributive: Dist:SOC

**PSYC 52.06 - Typical and Atypical Neurodevelopment**

Instructor: Robertson

Approximately one trillion synapses are formed each day during the first three years of life, many of which are pruned away by age five. What is happening in the brain during these formative years? The goal of this course is to provide insight into the neural basis of human cognition by examining the “tabula rasa” of the human brain and how it changes over the first few years of typical and atypical development. Throughout the course, we will wrestle with questions regarding which facets of our neural machinery and cognitive abilities are innate vs. acquired. We will discuss the development of specific cognitive capacities (e.g. learning to read, recognize faces, pay attention, communicate, socialize) from the perspective of individuals with typical developmental trajectories in each of these domains, as well as from the perspective of individuals with difficulties in each domain (e.g. dyslexia, prosopagnosia, ADHD, autism). This course will draw upon your prior knowledge of psychology, cognitive neuroscience, and neurobiology, and will explore classic and cutting-edge peer-reviewed scientific studies of developmental psychology, neurodevelopment, cognitive development.

Prerequisite: One of the following: PSYC 6, PSYC 21, PSYC 27, PSYC 28, or PSYC 38
Distributive: Dist:SCI

**PSYC 53 - Issues in Social Psychology**

Courses with this number consider several important sub-fields of social psychology. Material is treated at an intermediate level on a set of issues that are not covered in Psychology 23. Selection of issues is left to the discretion of the instructor, but specific emphasis is given to individual and group attitudes, modes of interpersonal communication, and behavior control in humans and animals.

Distributive: Dist:SOC

**PSYC 53.10 - Social and Affective Motivations in Decision-making**

Instructor: Chang

Why do we tip restaurant servers, cab drivers, and coffee baristas? Why does our grocery shopping behavior change when we are hungry? This course will explore the social and affective motivations that influence how we make everyday decisions from the diverse perspectives of psychology, economics, and neurobiology. This course will provide an introduction to how social psychological constructs and feelings can be modeled using tools from decision theory (e.g., value & uncertainty) and how these processes might be instantiated in the brain. Topics to be covered include other-regarding preferences (e.g., trust, reciprocity, fairness, and altruism), affective motivations (e.g., risk, dread, regret, and guilt), and social considerations (e.g., reputation, conformity, and social-comparison).

Prerequisite: PSYC 23, PSYC 27, PSYC 28, or PSYC 38
Distributive: Dist:SOC

**PSYC 53.12 - The Behavior of Groups**

Instructor: Herman

Much of your life is spent in groups: families, classes, teams, cliques, Greek organizations, work teams. Have you ever wondered what’s going on under the surface or how you can make your groups function better? Although these groups may be dissimilar in size, format, and function, the psychological processes involved are surprisingly consistent. This course will analyze psychological theories of group interaction including conformity, competition, conflict, leadership, negotiation, communication, power dynamics, status orders, initiation rites, ostracism, expectation states, and stereotypes. Readings will include classics such as Zimbardo’s Stanford Prison experiment, Tajfel’s
minimalist groups paradigm, Sherif’s Robber’s Cave experiment, Whyte’s Street Corner Society, and Pennington’s Social Psychology of Behavior in Small Groups. Assignments will involve several reading analyses, a final exam, and—of course—a group project.

Prerequisite: PSYC 1
Distributive: Dist:SOC

**PSYC 53.13 - Social Neuroscience**

Instructor: Meyer

This class will focus on the principles of social neuroscience (SCN) and survey a broad array of topics in the field. Social neuroscience attempts to answer social science questions, such as ‘why does rejection hurt?’ and ‘is empathy innate?’ with neuroscience methods, such as brain imaging and neuropharmacology.

Prerequisite: PSYC 1 or PSYC 6
Distributive: Dist:SOC

**PSYC 53.14 - Social Neurocognition**

Instructor: Stolk

This course will provide students with a thorough background in the emergent field of social cognitive neuroscience. A broad range of social phenomena will be examined at multiple levels. First, at the social level including experience and behaviors. Second, at the cognitive level which deals with information processing systems. And lastly, at the neural level which deals with brain/neuronal bases of the first two levels. Topics include joint action, animal and human communication, and altered social functioning in psychiatric and neurological disorders. These topics will be discussed at both general and specific (article) levels.

Prerequisite: PSYC 1 or PSYC 6
Distributive: Dist:SOC

**PSYC 54 - Issues in Applied Psychology**

Courses in this number consider several important sub-fields of applied psychology, such as environmental psychology and consumer behavior. Material is treated at an intermediate level. Selection of issues is left to the discretion of the instructor, but they will be selected with emphasis upon the extension of established psychological principles to problems of contemporary society. Enrollment limited to 35 students.

Distributive: Dist:SOC

**PSYC 54.02 - Health Psychology**

Instructor: Detzer

This course will explore the role of psychology and health. We will review both empirical/research and clinical psychology contributions to: 1) Chronic Physical Illness; and 2) Health Promotion. This course utilizes a multi-modal learning approach and will include student self-recording and reflection, lectures, journal article and text readings, large and small group class discussions, videos, and guest speakers. Through study of medical conditions such as diabetes, insomnia, stress/illness, cancer and chronic physical pain, we will explore the impact of illnesses on the individual/family, the role of developmental factors in illness, adherence/self-management issues, and medical treatment issues including doctor/patient communication and medical system aspects of care. We will also review health promotion/behavior change strategies.

Prerequisite: PSYC 1 or PSYC 6
Distributive: Dist:SOC

**PSYC 54.03 - Forms of Therapy**

Instructor: Hudenko

Each year, millions of people vow to make a change. Some may wish to end their habit of procrastination, others to improve a significant relationship, or still others may commit to combat a mental illness. Whatever their goal, people often discover how challenging personal change can be. At its core, clinical psychology facilitates such change through the scientific application of psychological principles. The purpose of this course is to introduce you to various scientifically-validated modalities of individual psychotherapy, with an emphasis on how psychotherapies utilize psychological principles to produce change. Over the course of the semester we also will explore special topics in the field of clinical psychology such as: human connection, empathy, emotion, ethics, psychological assessment, pharmacological treatments, and treatment evaluation.

Prerequisite: PSYC 24
Distributive: Dist:SOC

**PSYC 54.05 - Neuromarketing and Consumer Neuroscience**

Instructor: K. R. Clark

How do measures of the brain and body map onto a brand marketer’s return on a research investment? This course focuses on the history and topics related to the nascent, yet burgeoning, cross-disciplinary field of consumer neuroscience and new technological advances in marketing related to neuromarketing. The course will provide a unique vantage on the multiple academic and applied histories of the field, its ethical ramifications, along with general perspectives focusing on current practices and potential future directions, including the implications of predicting mass consumer behavior from small test samples. Students will have the opportunity to engage with some of the most notable academic and
practitioners in the field and will participate in a capstone project of original research applying theory and utilizing psycho physiological tools applied in real-world neuromarketing research.

Prerequisite: PSYC 1 and one of: PSYC 21, PSYC 27, PSYC 28, PSYC 38; or PSYC 6

Distributive: Dist:SOC

PSYC 54.06 - Dementia: From Synapse to Society
Instructor: Santulli

The goal of the course is to learn about the biological, psychological, sociocultural, global, ethical, and clinical features of Alzheimer’s disease and other dementias. Learning will occur in two ways: (1) traditional classroom activities, such as lectures, readings, videos, and discussions; and (2) weekly meetings with a person with dementia and his or her caregiver. Through these methods, you will come to appreciate dementia not only as a devastating disease but also as a lived experience.

Prerequisite: PSYC 1 or PSYC 6, or instructor permission.

Distributive: Dist:SOC

PSYC 54.07 - Clinical Science Practicum
Instructor: Hudenko

This course is designed to provide students with an experiential learning opportunity by applying knowledge and skills gained in the classroom to actual work settings while under both site and academic supervision. Students who have an interest in clinical psychology will learn about the different facets of working in a social service, mental health, or other community setting while assessing their own skills and suitability for this kind of graduate work or employment experience. Students will spend up to 10 hours/wk at their practicum site and will be mentored onsite. Additional supervision will be provided by a clinical science faculty member during regularly scheduled class times and didactic instruction will be offered to complement and enhance work that is completed at practicum sites.

Prerequisite: PSYC 24 and instructor permission.

Distributive: Dist:SOC

PSYC 54.08 - Leadership
Instructor: Jordan

What makes a great leader? Why would others follow you? A century of psychological research clarifies the traits, skills and behaviors of effective leaders, including how they attract, influence, develop and empower followers to excel in different situations. Readings will explain the psychological science; classroom demonstrations, guest leader interviews, case study discussions and small group challenges will illuminate it. Outside the classroom, weekly leadership practice assignments will reinforce core concepts, increase self-awareness, and develop leadership capabilities, all in support of a community impact initiative that each student will select, plan and lead (courage required). Your instructor will apply three decades of experience in developing thousands of leaders at all levels on multiple continents, to guide and challenge you to develop your science-based leadership potential.

Prerequisite: PSYC 1 or permission of instructor

Distributive: Dist:SOC

PSYC 60 - Principles of Human Brain Mapping with fMRI
Instructor: Chang, Haxby

This course is designed to introduce students to the theoretical and practical issues involved in conducting functional magnetic resonance imaging (fMRI) experiments of cognitive and behaviorally-related brain activity. Participants will gain an understanding of the physiological principles underlying the fMRI signal change, as well as the considerations for experimental design. The course will include firsthand exposure to the scanning environment and data collection procedures. Participants will be provided conceptual and hands-on experience with image processing and statistical analysis. At the completion of this course, it is expected that participants will be prepared to critique, design, and conduct fMRI studies; appreciate limitations and potentials of current fMRI methods and techniques; and better understand the broad range of expertise required in an fMRI research program. The course is designed to provide the participant with intensive, hands-on instruction. As a result, enrollment in the course will be limited. Knowledge of MR physics, signal processing, or the UNIX/Linux operating system is not a prerequisite.

Prerequisite: Instructor permission through the department website

Distributive: Dist:TLA

PSYC 63 - Experimental Study of Human Interaction
Instructor: Stolk

A deep understanding of any social species requires understanding why and how brains interact. Paradoxically, social neuroscience has focused nearly exclusively on mapping the brain as if it evolved in isolation. This focus on the individual brain is understandable as serious methodological constraints have traditionally limited multi-brain, interactive paradigms. Making headway on how brains interact, however, is becoming increasingly tractable. This course highlights scientific and technological innovations advancing our understanding of how human minds meet during social interaction. Conceptual and methodological challenges of studying
human interaction are dealt with in class discussions, laboratories, and small group research projects on selected topics.

Prerequisite: PSYC 11, PSYC 23, and instructor permission through the department website

Distributive: Dist: SOC

**PSYC 70 - Neuroscience Research**

This course is offered every term and is designed to enable Neuroscience majors early in their course of study to engage in independent laboratory research under the direction of a neuroscience faculty member. Students are required to write a final report that describes the goal of the project, their research, and what they learned from their experience. This course may count in the neuroscience major as an elective numbered above 20, but cannot fulfill the requirement for electives numbered above 40. It cannot be used towards the culminating experience. Students may take up to three terms of independent/honors research (PSYC 70, PSYC 90, PSYC 91) but only two terms may be counted for credit towards the major. More advanced students who have taken at least two core neuroscience courses should enroll in PSYC 90.

Prerequisite: PSYC 6. Submission of the Checklist for enrolling in Independent Research, which includes approval from the advisor.

**PSYC 80.01 - Neuroscience of Reward**

Instructor: Smith

Much of the life of humans and other animals revolves around reward, whether engaging in basic pleasures like food and sex or enjoying more complex things like music. This course will introduce conceptual frameworks to understand reward as a phenomenon that is distinct from other features of goal-directed behavior. We will then discuss recent advances in neuroscience research that are helping us to understand the basic brain mechanisms that make things pleasurable, including anatomical pathways, neurotransmitter systems, and dynamics of neural activity.

Prerequisite: PSYC 6 and one of PSYC 37 or PSYC 45; and instructor permission through the department website

**PSYC 80.02 - Neuroeconomics**

Instructor: Soltani

Neuroeconomics is an emerging field in which a combination of methods from neuroscience, psychology, and economics is used to better understand how we make decisions. In this seminar course, we learn about economic and psychological theories that are used to investigate and interpret choice behavior, and mental and neural processes that underlie decision making. We also examine how recent neurobiological discoveries are used to refine decision theories and models developed in psychology and economics. During this course, students will read and discuss the most current research findings in neuroeconomics. They will also learn to develop new ideas/hypotheses and design experiments to test those ideas/hypotheses, or to use their knowledge to inform society about the implications of findings in the field of neuroeconomics.

Prerequisite: Instructor permission through the department website

**PSYC 80.04 - The Weight Among Us: What Neuroscience Can Teach Us About Obesity**

Instructor: Clark, A

In 1995, ~56% of adults in the US were overweight or obese. Fast-forward ~25 years and the prevalence has increased to 70%. Over this time period there have been significant advances in the scientific understanding of obesity, yet many questions remain unanswered. In this course, students will examine, through the lens of neuroscience, how successes, failures and challenges in obesity research inform the prevention, management, and treatment of obesity.

Prerequisite: PSYC 6 and one of the following: PSYC 37 or PSYC 45 (recommended), instructor may waive PSYC 37/45 for qualified students; and instructor permission via the department website.

**PSYC 80.05 - Mind, Brain, and Health**

Instructor: Wager

What does the mind have to do with physical health? In this course, we explore the idea that the mind and brain influence physiological processes related to mental and physical health alike. How we conceptualize ourselves and our place in the world sets the stage for how we interpret life events and make decisions. This conceptualization also governs how our bodies respond to stressors and other environmental conditions.

Prerequisite: PSYC 1 or PSYC 6; 4 other PSYC/PSNS courses; and instructor permission via the department website.

**PSYC 80.06 - Advanced Seminar on Brain Evolution**

Instructor: Granger

For the first 200 million years of mammalian evolution, most animals’ brain sizes were highly predictable from their body size. In the past four million years, an evolutionary blink of the eye, primates rapidly evolved brains that are several times larger than previously would have been predicted for their body size. How did this occur? What are the effects of these substantial brain changes? What are the contents of human brains, and how do they differ from the brains of other primates (and other mammals, and non-mammals)? Evolution acts on genes, not on organisms; what are the genetic factors that have
been identified in recent primate brain growth? What relationships may obtain between anatomical and functional brain characteristics? What mechanisms are at play, including extrinsic factors and evolutionary “pressures”? What differential predictions do various theories make, and how are they tested? How would we know if a hypothesis is false; how do we know if they are falsifiable? The class will critically examine a set of related topics including brain structure, anthropology, evolution, genetics, development, cognition, race, intelligence.

Prerequisite: PSYC 1 or PSYC 6; and instructor permission via the department website

**PSYC 81.04 - Neural Basis of Human Imagination**

Instructor: Tse

The capacities that set humans apart in kind, not just in degree, from all other known animals include, in part, capacities and propensities for art, music, analogical reasoning, abstract thought, creativity, the spontaneous generation and use of symbols, the ability to reason abstractly about others and about events, as well as the ability to manipulate symbols recursively and syntactically. This course will explore the hypothesis that all these modes of human behavior and cognition share a common root cause in our brains. We will focus in particular on the human capacity to imagine. We can, for example, construct a representation of a thing, say an airplane, or an event, say a planned party, and then go about making real that which we imagined. How is this capacity to imagine and creatively plan realized in the brain? Where did it first appear in the human lineage? What is the relationship of imagining to other important capacities, such as attention, volition, consciousness, planning and executive control? The goal of this course is to try to answer such questions by reading empirical and theoretical papers and chapters that try to account for what it is that makes the human mind human, by looking at distinctive aspects of processing in the human brain.

Prerequisite: One of the following: PSYC 6, PSYC 21, PSYC 28; and instructor permission through the department website.

**PSYC 81.08 - Animal Cognition**

Instructor: van der Meer

Can rats empathize with others, or experience regret? Can birds grasp the intentions of others, or imagine the future? Do dogs deliberately deceive their human companions? This seminar will explore the cognitive abilities of a range of animals through the careful analysis of behavior, defining rigorous and measurable criteria for inferring complex behaviors, and contrasting them with simpler alternatives. We will draw on neural data, asking if phenomena such as creativity, mental time travel, and theory of mind can be detected based on the observation of brain activity. Finally, we will consider questions relevant to human health: can mice become schizophrenic, chronically depressed, or develop post-traumatic stress disorder? Lively discussion in the classroom is encouraged.

Prerequisite: PSYC 22 or PSYC 28, and instructor permission through the department website

**PSYC 81.09 - Storytelling with Data**

Instructor: Manning

In a world plagued by “alternative facts” but flush with “big data,” how can we find truth? For example, can truth be objectively defined, or are there many equally valid truths? And does truth depend on the question we’re asking, or is it a fixed property that we could somehow uncover with the right analysis? These sorts of question align with other deep questions about how we can really “know” something. For example, can we really ever hope to prove that the universe works in a particular way? If so, how? Or if not, what’s the point of observing the world around us at all, or of becoming a scientist? In this course we will define truth from a (somewhat cynical, but embarrassingly practical) psychological perspective: **truth is the story about data that others find most convincing.** To that end, we will examine (from this psychological perspective) tools and strategies for finding patterns in complex datasets, crafting convincing stories about those patterns, and communicating them to others.

Prerequisite: Instructor permission through the department website

**PSYC 81.10 - Neural Bases of Attention and Consciousness**

Instructor: Tse

This course will cover the relationship between volitionally attending and consciousness, particularly in the domain of human visual processing. By consciousness we mean that which is currently subjectively experienced. The relationship between attention and consciousness appears to be very tight; that which we choose to attend to we are conscious of, and that which we are conscious of we could choose to attend to in the next moment. We will examine what is known about the neural bases of the different types of attention, with a particular focus on 'endogenous attention,' which is the mode of attending that is under volitional control. We will at the same time examine what is known about the neural bases of visual consciousness, with a particular focus on those aspects of neural processing that are modulated by volitionally attending to a stimulus or not. In addition to one main text ("The Quest for Consciousness" by Christof Koch) we will read scientific papers that place useful constraints on the neural bases of volitional attention and visual consciousness.

Prerequisite: PSYC 1 or PSYC 6; and PSYC 11 or a lab course that is a part of the Neuroscience major, and permission through the department website.
PSYC 81.11 - Real-World Scene Perception  
Instructor: Steel  
We experience our visual environment as a seamless, immersive panorama. Yet, each view of this environment is discrete and fleeting, separated by expansive eye movements and discontinuous views of our surroundings. How does the brain build a unified representation of an immersive, real-world visual environment? This course will discuss the scientific literature of real-world visual scene understanding. The topics we will cover in this course cut across human, animal, and computational studies, addressing questions such as: What are the circuits and mechanisms that enable the recognition of a visual scene from just one glance? How are the representational dimensions of visual scenes mapped onto the surface of the brain? How can our understanding of human scene perception guide machine vision systems?  
Prerequisite: One of: PSYC 6, PSYC 21, or PSYC 28, and instructor permission through the department website

PSYC 81.12 - Using Naturalistic Stimuli, Brain Imaging, and Big Data Methods to Understand Human Cognition  
Instructor: Haxby  
Natural human experience involves a continuous stream of incoming stimuli in a rich context of prior knowledge and expectations. Traditionally, experimental psychology attempts to reduce this complexity using controlled experiments that vary a single, experimental variable and hold other, control variables constant. Human cognition, however, develops to extract information and guide behavior based on uncontrolled, naturalistic stimuli in an ecologically rich environment. In this seminar we will examine a new approach to experimental cognitive research that uses uncontrolled, naturalistic stimuli and discovers structure and meaning in the brain activity and behavioral responses they evoke using advanced computational methods from machine learning and big data analysis. We will discuss the advantages of this new approach for studying complex and ecological cognition and the limitations of the current state-of-the-art. Throughout the course we will consider future directions and challenges for extending this approach into new domains of cognition, developing richer naturalistic stimulation paradigms, and developing more powerful methods for discovering the structure of information in real world events and environments.  
Prerequisite: Permission of instructor. Background in psychological and brain imaging research methods, computer science, and machine learning will be helpful, but students need not have background in all of these areas.

PSYC 83.07 - The Problem of Other Minds  
Instructor: Meyer  
Success in a social world requires understanding other people’s thoughts and feelings. Yet, other people’s mental states are not directly observable: you cannot see a thought or touch a feeling. Nonetheless, humans are actually quite proficient in inferring these invisible, internal states of mind. How do we accomplish these mind-reading feats? This course will address this question, which is known as ‘the problem of other minds.’ We will tackle ‘the problem of other minds’ from multiple angles, relying heavily on neuroscience and psychology research, as well as a few foundational papers from philosophy. Specifically, we will address questions such as: Do specialized portions of the brain accomplish mental state inference? When do mind-reading skills develop in children and are humans the only species that can represent other minds? Why do some people, such as individuals with autism spectrum disorder (ASD), experience difficulties in understanding others? What leads to biases in mental state inference, such as anthropomorphism (when people attribute mental states to inanimate objects) and dehumanization (when people under attribute mental states to humans)?  
Prerequisite: PSYC 1, PSYC 10, and instructor permission through the department website

PSYC 83.08 - Social And Neural Networks  
Instructor: Thornton  
Networks exert profound influences on our lives. We are each embedded within social networks that influence our emotional wellbeing, the information we can access, and even which diseases we might catch. Likewise, each of us has a complex network of neurons embedded within our head: our brain. The structures of these neural networks reflect our cognitive abilities, mental health, and how we form our social networks. Despite the superficial dissimilarities between these types of networks, we can use a common framework – graph theory – to describe and understand both social and neural networks. This course will explore social psychology and neuroscience through the lens of networks, providing students with novel perspectives on and powerful tools for analyzing these subjects. Students will come away with a firm grasp of graph theory, social networks, brain networks, and artificial neural networks.  
Prerequisite: PSYC 1 or PSYC 6, and PSYC 10 or equivalent, and one of the following: PSYC 23, PSYC 38, a course in the PSYC 53 series, or PSYC 60; and instructor permission through the department website

PSYC 84.05 - The Power of Beliefs  
Instructor: Chang  
How do beliefs affect clinical outcomes? This course provides an in-depth examination of the role of beliefs and expectations in the manifestation of psychological symptoms and their treatment. Topics to be covered include the psychological and biological bases of...
students will be covered by Bucci Fellowships.

the David Bucci Fellows Fund, all travel expenses for Neuroscience. Thanks to the generosity of the donors to dedication to innovative undergraduate teaching in offered in honor of the late Professor David Bucci and his research paper and oral presentations. This seminar is different presentation styles, and preparation of an in-depth skills through critical evaluation of research, exposure to will also have the chance to develop important professional conference, meet world-renowned researchers, prospective future employers. Students will also have the chance to develop important professional skills through critical evaluation of research, exposure to different presentation styles, and preparation of an in-depth research paper and oral presentations. This seminar is offered in honor of the late Professor David Bucci and his dedication to innovative undergraduate teaching in Neuroscience. Thanks to the generosity of the donors to the David Bucci Fellows Fund, all travel expenses for students will be covered by Bucci Fellowships.

Pharmacological placebo effects, the mechanisms underlying psychotherapy (e.g., patient and provider expectations), and also how cultural expectations impact how psychological symptoms are experienced (e.g., hallucinations, delusions, and somatization).

Prerequisite: PSYC 1 or PSYC 6; and instructor permission through the department website

PSYC 86.01 - Selective Developmental Deficits
Instructor: Duchaine

Cognitive neuropsychology relies on selective deficits to shed light on the organization of the brain. In the past, nearly all selective deficits reported in the neuropsychological literature involved brain-damaged patients who lost particular abilities, but many selective deficits due to failures of development have been identified in recent years. These include deficits affecting computations concerned with color, faces, objects, spatial abilities, music, language, reading, number, and memory. This course will discuss the theoretical basis of selective deficits, examine the cognitive and neural profiles of particular selective developmental deficits, and consider the more general implications of selective developmental deficits and the research opportunities they present.

Prerequisite: Permission through the department website

PSYC 86.04 - Bucci Fellows Seminar in Advanced Neuroscience
Instructor: Nautiyal

This seminar provides advanced undergraduates the opportunity to participate in the exploration of the cutting edge of neuroscience research through the vehicle of the Annual Meeting of the Society for Neuroscience (SfN). The conference program serves as a syllabus and roadmap for the most up-to-date techniques and discoveries in the field of neuroscience. The seminar will explore topics and issues informed by the scheduled presentations at the meeting, allowing student learning to keep pace with the current research and knowledge of leading international experts in neuroscience. The culmination of the course will involve travel to the Annual Meeting of SfN with over 30,000 neuroscientists. This experience is designed to make neuroscience “come alive,” and to provide students with valuable opportunities to take part in a scientific conference, meet world-renowned researchers, prospective graduate mentors, and possible future employers. Students will also have the chance to develop important professional skills through critical evaluation of research, exposure to different presentation styles, and preparation of an in-depth research paper and oral presentations. This seminar is offered in honor of the late Professor David Bucci and his dedication to innovative undergraduate teaching in Neuroscience. Thanks to the generosity of the donors to the David Bucci Fellows Fund, all travel expenses for students will be covered by Bucci Fellowships.

Prerequisite: PSYC 6 and instructor permission through the department website. Students interested in the course should contact the instructor prior to the course registration period. Students will be asked to complete a brief application stating their interest in the course, what they hope to get out of the course, courses completed in Neuroscience/Psychology, and any prior research experience. Advanced students (Seniors, then Juniors) will be given priority for enrollment. A code of conduct will also be developed by and for the students to guide their participation at the conference as ambassadors of Dartmouth College.

PSYC 86.05 - Future Directions in Psychological Science
Instructor: Wheatley

Psychology and neuroscience are ever evolving. Textbooks, with their hundreds of pages, are continually edited, making way for new areas of research previously unstudied. What is on the horizon for these fields? In this culminating seminar, we will look at the ways these fields are breaking new ground in deepening our knowledge of the human mind, the research that foreshadowed those changes, and the role of interdisciplinary. We will also discuss the implications of these new directions in terms of how we grapple with the deepest psychological questions – What does it mean to be human? How should we treat others? How do minds connect? And how should science, itself, change to become more robust, open and objective? Throughout the class, we will discuss the important and challenging ethical implications of these new frontiers.

Prerequisite: PSYC 1 and instructor permission via the department website

PSYC 87.02 - Genes, Evolution, and Behavior
Instructor: Cramer

In this course, we will examine how genetic methodologies and evolutionary theory have been used to explain the nature and origins of individual differences in behavior and its underlying neural mechanisms. Ranging from genetic association studies in humans to transgenic techniques with animals, these methods have provided both answers and questions about how heredity and environmental influences impact various traits. Students will have the opportunity to explore a particular topic of their choosing in greater depth.

Prerequisite: PSYC 10 and one of the following: PSYC 6, PSYC 25, PSYC 27, PSYC 38; and instructor permission through the department website

PSYC 88 - Independent Psychology Research
Instructor: Cramer

This course is designed to enable qualified students to engage in independent laboratory or field research and literature. Students are...
required to write a final report of their research. Students may take up to three terms of independent research (or one term of independent research and two terms of honors research), but no more than two terms of 88, 89, or a combination of 88s and 89s may count toward the eight required courses for the major. This course may not be used to fulfill the upper-level (60 or above) major requirement.

Prerequisite: PSYC 1 or PSYC 6, and PSYC 10, and PSYC 11. Submission of the Checklist for enrolling in Independent Research, which includes approval from the advisor.

**PSYC 89.01 - Honors Psychology Research I**

This course is designed to enable especially qualified Psychology majors, usually seniors, to engage in honors laboratory or field research under the direction of a faculty member. No more than two terms of 88, 89, or a combination of 88s and 89s may count toward the eight required courses for the major. This course may be used to fulfill the upper-level (60 or above) major requirement. Students are awarded one course credit for successful completion of this course once they complete the Psychology Honors Program requirements, generally at the end of the spring term. Students subsequently register for PSYC 89.02. Although students must register for two terms of Honors Psychology Research (PSYC 89.01 and PSYC 89.02), honors research coursework extends over three terms. Students do not register for a third term. A final grade will replace the “ON” for both this course and PSYC 89.02 upon completion of the Psychology Honors program requirements. See the description of the Psychology Honors program for additional information.

Prerequisite: PSYC 1, PSYC 10, and PSYC 11. A 60-level course is strongly recommended. Submission of the checklist for enrolling in Honors Research, which includes approval from the advisor. The checklist is available on the department website.

**PSYC 89.02 - Honors Psychology Research II**

Psychology Honors students register for PSYC 89.02 as their second term of honors research. Students are awarded one course credit for successful completion of this course once they complete the Psychology Honors Program requirements, generally at the end of the spring term. Students register for this course after PSYC 89.01. Students register for only two terms, though honors research coursework extends over three terms. A final grade will replace the “ON” for both PSYC 89.01 and this course upon completion of the Psychology Honors Program requirements.

Prerequisite: PSYC 89.01

**PSYC 90 - Independent Neuroscience Research**

This course is designed to enable Neuroscience majors to engage in independent laboratory research under the direction of a Neuroscience faculty member. Students are required to write a final report of their research. Students may take up to three terms of independent research (or one term of independent research and two terms of honors research), but only two terms may be counted for credit towards the major. If two terms are taken, one may count towards the major culminating experience and the second may count as an elective numbered above 20, but cannot be used to fulfill the major requirement for electives numbered above 40.

Prerequisite: PSYC 6, PSYC 10, two of the four core courses required for the major and submission of the Checklist for enrolling in Independent Research, which includes approval from the advisor.

**PSYC 91.01 - Honors Neuroscience Research I**

This course is designed to enable qualified Neuroscience majors (whose major GPA is above 3.3), usually seniors, to engage in honors laboratory or field research under the direction of a faculty member. Students must take two terms of Honors Research (PSYC 91.01 and PSYC 91.02). No more than two terms of 90, 91, or a combination of 90s and 91s may count toward the required courses for the major. Since honors students take PSYC 91.01 and PSYC 91.02, one may count towards the upper-level (60 or above) culminating experience requirement for the major and the second may count as an elective numbered above 20, but cannot be used to fulfill the major requirement for electives numbered above 40. Students are awarded one course credit for successful completion of this course once they complete the Neuroscience Honors Program requirements, generally at the end of the spring term. Students subsequently register for PSYC 91.02. Although students must register for two terms of Honors Neuroscience Research (PSYC 91.01 and PSYC 91.02), honors research coursework extends over three terms. Students do not register for a third term. A final grade will replace the “ON” for both this course and PSYC 91.02 upon completion of the Neuroscience Honors program requirements. Please see the description of the Neuroscience Honors program for additional information.

Prerequisite: PSYC 6; and PSYC 10 or BIOL 29.

Submission of the checklist for enrolling in Honors Research, which includes approval from the advisor. The checklist is available on the department website.

**PSYC 91.02 - Honors Neuroscience Research II**

Neuroscience Honors students register for PSYC 91.02 as their second term of honors research. Students are awarded one course credit for successful completion of this course once they complete the Neuroscience Honors Program requirements, generally at the end of the spring term. Students register for this course after PSYC 91.01. Students register for only two terms, though honors research coursework extends over three terms. A final grade will replace the “ON” for both PSYC 91.01 and this course upon completion of the Neuroscience Honors program requirements.
course upon completion of the Neuroscience Honors Program requirements. See full course description listed with PSYC 91.01 and the Neuroscience Honors program description for more details.

Prerequisite: PSYC 91.01

Quantitative Social Science

Chair: Michael Herron

Professors J. M. Carey (Government), M. C. Herron (Government), Y. Horiuchi (Government), J. Houle (Sociology), S. D. Pauls (Mathematics), R. A. Shumsky (Operations at Tuck Business School); Assistant Professor R. Johnson (QSS), K. B. Rogers (Sociology); Adjunct Assistant Professor J. Chipman (Geography and Earth Sciences), Antonio Sirianni (Postdoc), Elsa Voytas (Postdoc),

The Program in Quantitative Social Science (QSS) brings together Dartmouth faculty and students who are interested in applying statistical, computational, and mathematical tools to social science questions. QSS offers undergraduates a minor and a major, both of which combine quantitative training with one or more of the social sciences. Through QSS, Dartmouth undergraduates can integrate the power of modern quantitative and computational methods with the substance of a social science discipline.

To view Quantitative Social Science courses, click here. (p. 608)

The Major in Quantitative Social Science

The major consists of courses to be selected from the following areas:

Prerequisites:

- Programming: either COSC 1 or ENGS 20, or another programming course approved by the QSS Chair.
- Mathematics: MATH 3 and MATH 8.
- Introductory statistics: either ECON 10, GOVT 10, MATH 10, QSS 15, PSYC 10, or SOCY 10, or another introductory statistics course approved by the QSS Chair.
- Intermediate statistics: either ECON 20, GOV 19.01, MATH 40, MATH 50, or QSS 54 or another intermediate statistics course approved by the QSS Chair.

- Mathematical Modeling: either ECON 21 or QSS 18, QSS 30.04 or another game theory course approved by the QSS Chair.
- Introductory social science: one of ANTH 1, ANTH 6, ECON 1, EDUC 1, GEOG 1, GEOG 6, GOV 3, GOV 4, GOV 5, GOV 6, PSYC 1, or SOC 1, or another course approved by the QSS Chair.

Core Curriculum:

The core curriculum for the major in Quantitative Social Science includes QSS 17 and QSS 20. This requirement will be applied starting with the Class of 2024.

Methods-oriented requirements:

MATH 11, MATH 13, or MATH 22.

AND two courses from the following:

COSC 74, Machine Learning and Statistical Data Analysis
GEOG 9.01, Geographical Information Systems
GEOG 54, Geovisualization
MATH 36, Mathematical Models in the Social Sciences
MATH 50, Introduction to Linear Models
MATH 76, Topics in Applied Mathematics (to be approved by the QSS Chair)
QSS 17, Data Visualization
QSS 30, Special Topics in QSS
QSS 41, Analysis of Social Networks

The special topics course, QSS 30, may be taken more than once as long as different electives are selected. Moreover, with permission of the QSS Chair students may substitute other courses offered at Dartmouth for any of the two required courses listed above.

Social science requirements:

Four non-introductory courses that focus on a social science area of the student's choosing. A student pursuing the major in QSS should consider the extent to which his or her social science courses are coherent, and the QSS Chair will be available to offer guidance on this.

Research project requirement:

To graduate with a major in QSS, a student must complete an independent research project. At the end of his or her third year on campus, each QSS major must choose one of two project options: either an intensive, one quarter project or a three quarters honors thesis. The honors thesis option requires approval from the program, and QSS honors theses are governed by guidelines established by the College. Per these guidelines, a student completing a thesis judged to be of sufficiently high quality will graduate from Dartmouth with Honors or with High Honors in QSS. A QSS major who elects the intensive project track will work on his or her project during the winter term of the
student’s fourth year on campus. Any exceptions to this rule must be approved by the QSS Director of Undergraduate Research (DUR) and the QSS Chair. Participating in the thesis track requires work and engagement during the fall, winter, and spring terms of a student’s fourth year. Students applying to write an honors thesis in QSS should have an overall grade point average of 3.5 or higher. In limited and extraordinary circumstances, a student pursuing a major in QSS will be permitted to change tracks after the start of his or her fourth year. The QSS Chair and DUR are responsible for assessing and, if necessary approving, any such proposed moves. A student completing an intensive, one quarter research project will take QSS 82 in the winter of the student’s last year on campus. A student in the honors thesis track of the QSS major will take QSS 81 in the winter. For further details on application and timing for the two research project tracks, consult the QSS Chair.

The Minor in Quantitative Social Science

The QSS minor was designed based on the belief that quantitatively- and computationally-oriented students who have interests in social science should be taught a core set of skills. Such students need to know the basics of computer programming; they need a foundation in mathematics; they need to know the basics of statistical inference; they need exposure to mathematical modeling; they need to be familiar with research design; and, they need hands-on exposure to the rewards and difficulties of research. The QSS minor embodies these objectives and empowers students to answer important empirical questions about the world.

The minor consists of courses to be selected from the following areas:

Five prerequisites:

- Programming: either COSC 1 or ENGS 20, or another programming course approved by the QSS Chair.
- Mathematics: MATH 8.
- Mathematical modeling: either ECON 21, QSS 18, QSS 30.04, or QSS 36, or another course approved by the QSS Chair.
- Introductory statistics: either ECON 10, ENVS 10, GOVT 10, MATH 10, QSS 15, PSYC 10, or SOCY 10, or another introductory statistics course approved by the QSS Chair.
- Intermediate statistics: either ECON 20, GOV 19.01, MATH 40, MATH 50, QSS 54, or another intermediate statistics course approved by the QSS Chair.

Core Curriculum:

The core curriculum for the minor in Quantitative Social Science includes QSS 17 and QSS 20. This requirement will be applied starting with the Class of 2024.

AND Three courses from the following:

COSC 74, Machine Learning and Statistical Data Analysis
GEOG 9.01, Geographical Information Systems
GEOG 54, Geovisualization
MATH 70, Elements of Multivariate Statistics and Statistical Learning
QSS 17, Data Visualization
QSS 30, Special Topics in QSS
QSS 41, Analysis of Social Networks

The special topics course, QSS 30, may be taken more than once. Moreover, with permission of the QSS chair students may substitute other courses offered at Dartmouth for any of the three required courses listed above.

AND One research seminar: QSS 83

QSS - Quantitative Social Science Courses

To view Quantitative Social Science requirements, click here (p. 607).

QSS 15 - Introduction to Data Analysis
Instructor: Herron, Lo

Methods for transforming raw facts into useful information. Directed toward students with an aptitude for mathematics. Emphasis is placed on the understanding use, and both oral and written interpretation of exploratory data analysis within the rules of scientific method. With permission from the responsible department, QSS 015 may be used to satisfy some pre-medical, natural science, and social science departmental requirements in mathematics, statistics, and methodology. Limited enrollment.

Because of the large overlap in material covered, no student may receive credit for more than one of the courses ECON 10, ENVS 10, GOVT 10, MATH 10, PSYC 10, QSS 15, and SOCY 10, except by special petition to the Committee on Instruction.

Prerequisite: MATH 3 or higher, or permission.

Distributive: QDS

QSS 17 - Data Visualization
Instructor: Horiuchi, Cooper

Big data are everywhere – in government, academic research, media, business, and everyday life. To tell the
I. MAJORS AND THE MINOR OPEN TO THE CLASSES OF 2023 AND EARLIER

Stories hidden behind blizzards of data, effective visualization is critical. This course primarily teaches R, a free software environment for statistical computing and graphics, which is widely regarded as one of the most versatile and flexible tools for data visualization and, more broadly, data science. Students completing the course will know how to “wrangle” and visualize data critical to their scientific endeavors.

Cross-Listed as: GOVT 16
Distributive: Dist:TLA

**QSS 18 - Introduction to Game Theory**
Instructor: Herron

Game theory is used to study how individuals and organizations interact strategically, and this course introduces game theory with a focus on political science applications. Game theory is a standard tool in the social sciences, and insights from game theory are essential to understanding many facets of politics, such as political party competition, legislative politics, international relations, and the provision of public goods. Among other topics, the course will cover normal and extensive form games, Nash equilibria, imperfect information, mixed strategies, and, if time permits, the basics of games with incomplete information. A course in game theory will change the way that one views the world.

Cross-Listed as: GOV 18
Distributive: QDS

**QSS 20 - Modern Statistical Computing**
Instructor: Johnson

This course is meant to build upon your introductory programming course and to equip you with the computing literacy to conduct social science research in the age of “big data.” This has two core components. First is learning the background tools (e.g., Github; Latex; working on the command line) to conduct transparent and reproducible research. Second is learning programming skills essential for social science in the big data era, with a focus on using Python for various applied tasks as well as R for tasks like data visualization and SQL for tasks like working with the relational databases that form the backbone of many real-world government and commercial datasets.

Distributive: Dist:TAS

**QSS 30 - Special Topics in Quantitative Social Science**

This course focuses on a particular topic of interest to students pursuing coursework in quantitative social science. The topics covered by QSS 30 will span economics, political science, sociology, and other fields. The specific topic of the course will change with each offering, and students may therefore take this course more than once.

**QSS 30.01 - Sports Analytics**
Instructor: Hanlon, Herron

Sports organizations are becoming increasingly aware that analytics are an important component of team success. This course will introduce students to various statistical techniques used in modern sports analysis and in particular will teach participants how statistical methods can be used to analyze game outcomes and evaluate players and strategies. The course will include lectures, in-class exercises using the R statistical computing environment, and guest speakers from the sports industry.

Distributive: Dist:QDS

**QSS 30.02 - Computational Text Analysis for the Social Sciences**
Instructor: Westwood

Language is the medium for politics and political conflict. Candidates debate during elections. Representatives write laws. Nations negotiate peace treaties. Clerics issue Fatwas. Citizens express their opinions about politics on social media sites. These examples, and many others, suggest that to understand what politics is about, we need to know what political actors are saying and writing. This course introduces techniques to collect, analyze, and utilize large collections of text for social science inferences. Students will also have the opportunity to develop their programming abilities.

We will explore a range of datasets from the text of The Federalist Papers to the millions of tweets sent to and from members of Congress.

Cross-Listed as: GOVT 19.05 MATH 05.01
Distributive: Dist:TLA

**QSS 30.03 - Experiments in Politics**
Instructor: Costa, Nyhan, Crabtree

This class is a lab-style seminar in which we will design, field, and analyze an experimental study. Our goal is to publish a scholarly article about our findings in a peer-reviewed journal of political science - an ambitious project that will require a substantial commitment from each student. Flexibility will also be essential since the course will evolve during the semester based on the needs of the project.

The subject of the experimental study varies term to term and will be determined prior to the beginning of classes. Although the experimental study will vary each term, students may not repeat this course for credit.

Cross-Listed as: GOVT 83.21
Distributive: Dist:QDS
QSS 30.04 - Evolutionary Game Theory and Applications
Instructor: Fu
Pioneered by John Maynard Smith and others, evolutionary game theory has become an important approach to studying a wide range of biological and social problems, such as microbial interactions and animal behavior. In evolutionary game dynamics, the fitness of individuals depends on the relative abundance of all individual types in the population, and higher-fitness individual types tend to increase in abundance. This course introduces basic concepts in evolutionary game theory, including evolutionarily stable strategies, replicator dynamics, finite populations, and games on networks, along with applications to social evolution, particularly to understanding human cooperation.
Prerequisite: MATH 3
Cross-Listed as: MATH 30.04
Distributive: Dist:QDS

QSS 30.05 - Topics in Digital History: U.S. History Through Census Data
This course focuses on using data from historical censuses (1850-2000) to examine U.S. history. We will discuss what the census tells us about the past, the role of the census in policy-making, and the history of the census. The course comprises four units: race, (im)migration, work, and family. For each, you will learn how to find, analyze, and visualize census data using R and how to write about quantitative historical analysis in a digital medium.
Cross-Listed as: HIST 90.01
Distributive: QDS; WCult:W

QSS 30.06 - By the Numbers: Race, Incarceration and Politics
More than half a century after the height of the Civil Rights Movement, inequalities between black Americans and white Americans persist. Across a myriad of measures—including health, employment, income, wealth, education, and incarceration—black Americans are fundamentally different than whites. Leveraging contemporary data and modern quantitative techniques, we evaluate black-white racial gaps by the numbers and among other things consider how racial inequalities in the United States might alter the American political landscape.
Cross-Listed as: GOVT 19.06
Distributive: Dist:QDS

QSS 30.07 - Simulating Social Systems: Complexity and Society
Instructor: Frey
In this course we will learn the science and art of "agent-based modeling," the simulation of social phenomena with computer models. Social outcomes seem complex, but that complexity often results from many agents following very simple rules. We will discover the science of spontaneous social order, learning to program in a simple computer language for writing social simulations, and studying models by sociologists, economists, psychologists, political scientists, philosophers, historians, and even computer scientists and physicists.
Distributive: Dist:SOC

QSS 30.08 - Misperceptions in Politics: When Do They Matter and Why?
Instructor: Flynn
Many citizens hold misperceptions about political facts. When and why do they matter? This course examines the causes and consequences of misperceptions, strategies for correcting misperceptions, and the tools scholars use to study misperceptions scientifically. These tools include surveys, experiments, and a widely used statistical computing program (R). Students will work together (with the instructor) to design, execute, and report an original experimental study of misperceptions.
Cross-Listed as: GOVT 83.09
Distributive: Dist:QDS

QSS 30.09 - Data Wrangling
Instructor: Yapalparvi
This course is a survey of methods for extracting and processing data. It will cover data architectures (ontologies, metadata, pipeline and open source resources), database theory, data warehouses, the electronic medical record, various file formats including audio, and video, data security and cloud resources. Students will gain skills working with Big Data using software such as SQL, APACHE Hadoop and Python.
Distributive: Dist:TAS

QSS 30.11 - Applied Machine Learning for Social Science
Machine learning is a framework for modeling data, where patterns encoded in a data are "learned" by a model. These patterns are sometimes used to make predictions about data that the model has not yet "seen." The amount of data available to social science researchers has exploded in recent years. Advances in machine learning have given social scientists new tools to make sense of these data to answer big and important questions.
This course will introduce the theoretical foundations of machine learning, statistical inference, and prediction;
explore the many applications of statistical machine learning to social science research, and examine the broader social impacts of algorithms and machine learning on contemporary politics and society.

Distributive: Dist:QDS

**QSS 30.12 - Quantitative Literary Criticism**

Digitization of vast numbers of texts and rapid advances in computational methods are enabling new forms of criticism in all areas of literary study. Classics was an early adopter of digital technologies, and computation is now pervasive throughout the field, as illustrated by flagship projects such as the Perseus Digital Library. Beyond the familiar examples of digitized texts and simple word searches, scholars and students also benefit from an ever-growing array of sophisticated quantitative tools, and from increasing engagement with diverse technical disciplines – natural language processing, data science, even bioinformatics. Through a survey of recent research at the intersection of Latin literature and the digital humanities, this course will introduce you to the state of the art in quantitative literary criticism. To ground our methodological investigations, we will explore a diverse selection of Latin poetry, including epic (Vergil, Lucan, and Catullus), elegy (Catullus), and comedy (Plautus), and sample some less famous later authors, such as Paul the Deacon and Vitalis of Blois, who were influenced by classical antecedents. At each turn, we will examine the interplay between traditional (close reading, philology, theory) and data-driven analyses of Latin literature and consider how quantitative methods can support humanistic inquiry. Along the way, you will gain hands-on experience with powerful computational tools and be introduced to now ubiquitous critical approaches, such as intertextuality and reception studies. Assigned readings will be in English translation using bilingual Latin-English editions; in addition to reading all of the English, students with Latin will be responsible for understanding and translating “micro samples” of the original texts. The course assumes no prior computational background.

Cross-Listed as: CLST 10.09

Distributive: Dist:TAS

**QSS 30.13 - Sociology of Mental Health**

Instructor: Houle

Poor mental health and mental illness are often viewed as biological flaws. Sociologists, however, argue that mental illness is socially constructed, and that population mental health is profoundly shaped by social conditions. In this course, we will explore sociological understandings of mental health and illness. We will focus on a range of topics, including: the social construction of mental illness, how social inequality contributes to mental health, and how society responds to the mentally ill.

Cross-Listed as: SOCY 035

Distributive: Dist:QDS

**QSS 30.15 - Neighborhoods and Health**

Just as conditions within our homes have important implications for our health, conditions in the neighborhoods surrounding our homes also can have major health effects. Social, economic, and environmental features of neighborhoods have been linked with mortality, general health status, disability, birth outcomes, chronic conditions, obesity, depression, injuries, violence, health behaviors and more. In this course, we consider whether and how the characteristics of neighborhoods shape the physical and mental health of individuals, and how neighborhoods contribute to persistent health disparities. Special attention will be devoted to conceptual and methodological challenges to detecting the prevalence and magnitude of ‘neighborhood effects’ on health. Not open to students who have received credit for SOCY 79.12.

Cross-Listed as: SOCY 075

Distributive: Dist:SOC

**QSS 30.16 - Cultural Analytics**

Instructor: Dobson

This course is an introductory course and assumes no prior knowledge of literary studies, critical approaches, statistics, or data analysis. It provides an overview of emergent quantitative methods and theories used by humanists to study data in text and text as data. As we examine these objects, we'll ask questions about the differences, in terms of methodology and interpretive practices, between the social sciences and the humanities. In developing answers to these questions, we will explore recent quantitative methods alongside traditional methods of humanistic inquiry. The goal of the course is to enable students to evaluate data, methods, and interpretations produced from quantitative research in the humanities and to conduct their own research.

Cross-Listed as: ENGL 64.05

Distributive: Dist:QDS

**QSS 30.17 - Unstalling the Stalled Revolution: Gender (In)equality at Work and at Home**

The nature of work, family life, and gender relations has changed dramatically over the last half century. This course examines these trends, with a focus on implications for gender inequality in society. We will focus on patterns in paid labor force participation and family life in the United States, and discuss the major debates surrounding the causes and consequences of such trends. We will also pay attention to how these patterns look across different races, ethnic groups, and socioeconomic status, as well as briefly examine how these trends compare to other countries. We will conclude by exploring the implication
of gender inequality for families, as well as work-family policy debates.

Cross-Listed as: SOCY 061 WGSS 33.05
Distributive: Dist:SOC; WCult:W

**QSS 30.20 - Polling, Public Opinion, and Public Policy**
Instructor: Barabas

The results of public opinion polls frequently dominate political news coverage and they often alter the behavior of politicians; moreover, political polls have started becoming political news coverage and they often alter the behavior of the public. The results of public opinion polls frequently dominate policy debates.

Cross-Listed as: SOCY 061 WGSS 33.05
Distributive: Dist:SOC; WCult:W

**QSS 36 - Mathematical Models in the Social Science**
Instructor: Lord

Disciplines such as anthropology, economics, sociology, psychology, and linguistics all now make extensive use of mathematical models, using the tools of calculus, probability, game theory, network theory, often mixed with a healthy dose of computing. This course introduces students to a range of techniques using current and relevant examples. Students interested in further study of these and related topics are referred to the courses listed in the Mathematics and Social Sciences program.

Prerequisite: MATH 13, MATH 20
Cross-Listed as: MATH 36
Distributive: TAS
I. MAJORS AND THE MINOR OPEN TO THE CLASSES OF 2023 AND EARLIER

QSS 41 - Analysis of Social Networks
Instructor: Sirianni
Students will gather and analyze data on a variety of networks (institutions, communities, elites, friendship systems, kinship systems, trade networks, and the like). Techniques of analysis may include graph theory, text analysis, multidimensional scaling and cluster analysis, and a variety of special models. Not limited to students in the major.
Distributive: QDS

QSS 54 - Chasing the (Causal) Dragon: Intermediate Quantitative Data Analysis for Sociologists
Instructor: Houle
Sociologists and other social scientists are often interested in understanding causal and dynamic social processes such as:

“How do the places we live, work, and play get under the skin and affect health and well-being across the life course?”

“Does upward social class mobility change one’s political attitudes?”

“What social currents are responsible for changes in support for same-sex marriage across historical time?”

“Are long-standing racial inequalities declining, persisting, or increasing in recent years?”

Many of these questions are methodologically difficult to answer with observational (non-experimental) data, and they require that we get a handle on the study of change, context, and causality. You likely have learned how to answer questions like these with standard OLS (linear) regression techniques and cross-sectional data, which remain useful tools in social scientists’ methodological toolbox. But these techniques are also quite limited, and impose strict assumptions that do not allow us to meet many of our goals, adequately answer our questions, or provide stringent tests of our theories and hypotheses.

In this course, we’ll pick up where introductory statistics courses leave off, and get an introduction to more advanced statistical methods for observational data, including but not limited to: regression for categorical dependent variables, fixed and random effects models, and hierarchical linear modeling. This course will be a mix of seminar and lecture, where we will be focused on understanding how we can use these methods to better meet our goals and answer our research questions. Put differently, this course is less focused on going “under the hood” and more focused on “how to drive”—specifically, we will interrogate the assumptions and use of these statistical methods in the social sciences and learn how to implement these methods using STATA. This will include: discussion of core methodological assumptions and limitations, how to apply these statistical methods in different settings, and learning when specific methods are appropriate tools and when they are not. We will explore these issues through student-led discussions, hands-on data analysis, and dissecting the application of these methods in academic journal articles. As part of this course, you will be exposed to (and critique) a wide range of sociological research published in our major disciplinary journals. The course will culminate in an independent research project where students will analyze data and use the one or more of the modeling techniques discussed during the term to answer a sociological research question of their choosing. **SOCY 10 or equivalent and a basic understanding of STATA is required to enroll in this course.**

Cross-Listed as: SOCY 054
Distributive: Dist:QDS

QSS 80 - Research Seminar in Quantitative Social Science
This course offers a qualified student the opportunity to undertake an original research project under the direction of a faculty member, either in seminar format if there are a sufficient number of students enrolled in the course during a given quarter or on an individual basis otherwise. Each student will write a formal paper embodying the results of the research and present it at the end of the quarter. QSS 80 is a required component of the Minor in QSS. Students are encouraged to take QSS 80 after completing other minor requirements, or concurrently with the QSS Chair’s permission.

QSS 81 - Major Thesis Research
Instructor: Herron
This course is part of the two-track major in QSS. Students in the honors thesis track of the major will register for QSS 81 in the winter quarter of their fourth year. Participating in this course requires work and engagement during the fall, winter, and spring terms of a student's fourth year. Students applying to write an honors thesis in QSS should have at time of application an overall GPA of 3.5 or higher.

Students are awarded one course credit for successful completion of this course at the end of the second term of work. Students register for QSS-081 in the winter term and receive a grade of “ON” (ongoing) at the end of the term. Students do not register for the subsequent term. A
final grade will replace the “ON” at the end of the subsequent term at which time the coursework must be completed.

**QSS 82 - Major One Quarter Project**
Instructor: Cooper

This course is part of the two-track major plan in QSS. Students in the intensive project track of the QSS major must register for this course in the winter quarter of their fourth year on campus.

**QSS 83 - Minor One Quarter Project**
Instructor: Cooper

This course offers a qualified student the opportunity to undertake an original research project under the direction of a faculty member. All QSS minors must register for this course in the winter quarter of their 4th year on campus after fulfilling all minor requirements.

**QSS 88 - Independent Study in Quantitative Social Science**

Each QSS major must complete an honors thesis by taking QSS88 for credit at some point during the student’s thesis year, and this course will in general be taken in the winter quarter. During the chosen quarter, each student will work on an independent research project under the direction of one or more faculty members, who will meet with the student regularly, usually weekly. All QSS theses will be graded and presented in accordance with Dartmouth College rules and guidelines that have been established by the QSS Steering Committee. This course is repeatable as many times as the student would like to repeat it. The guidelines are available at the QSS website.

**The Nelson A Rockefeller Center for Public Policy**

The Rockefeller Center at Dartmouth College was founded in 1983 to commemorate the contributions of Nelson A. Rockefeller ’30 to the life of the nation. The Rockefeller Center seeks to educate, train, and inspire the next generation of public policy leaders in all fields of endeavor through multidisciplinary education, public lectures by visiting scholars and dignitaries, skills training, and public policy-oriented research across the social sciences. The Center seeks to connect experiences in and out of the classroom, on and off campus to reach this goal.

The curricular offerings of the Rockefeller Center provide a wide variety of opportunities for students to engage with public policy in their area of interest. In addition to enrolling in one of the more than a dozen public policy courses offered each year, students have the ability to complete a public policy minor for in-depth exploration of the public policy process, policy research and analysis, and a targeted focus on a substantive policy area (e.g., health care, environment, education, social welfare). The Center sponsors the Policy Research Shop, a student-staffed, faculty-mentored research enterprise in which students conduct research at the request of New Hampshire and Vermont state, county, and local government officials, often with the opportunity to testify on their findings. The Center also offers an exchange program with Keble College at Oxford University and grants to students working on honors theses in the social sciences.

Outside the classroom, the Center provides students with robust co-curricular programs designed to build on their leadership skills and capacities. Programs help students to reflect upon, develop, and assess their strengths and their capacity to work in teams to achieve common good. These programs include the First-Year Fellows Program in Washington, DC; funding for off-campus internships; a Mini-Grant program for supporting special student-initiated initiatives; Dartmouth Model UN Program; and a sequence of leadership programs consisting of Dartmouth Leadership Attitudes and Behaviors, the Management and Leadership Development Program, the Rockefeller Global Leadership Program, and Rockefeller Leadership Fellows. The Center's Public Programs provide students with the opportunity to meet and engage with speakers who are scholars or practitioners related to a current public policy or leadership issue.

**Public Policy Minor**

Coordinator: Ronald G. Shaiko, Senior Fellow and Associate Director, The Nelson A. Rockefeller Center

Research Associate Professor R. G. Shaiko; Rockefeller Center Director Professor J. Barabas; Former Rockefeller Center Director Professor A.A. Samwick; Senior Lecturer and Policy Fellow C. J. Wheelan; Research Assistant Professor of Government H. S. Nachlis; Visiting Professor S. J. Severenchuk; and Research Scientist D. Schroeder.

*To view Public Policy courses, click here* (p. 615).

The Nelson A. Rockefeller Center at Dartmouth coordinates the Minor in Public Policy, which is open to students from all majors who seek a coherent program of study in the field of public policy, broadly defined.

Drawing on faculty in the social sciences and interdisciplinary programs, the minor provides a variety of perspectives on policy questions, such as changes in values, institutions, technology or markets, and it enables students to pursue a focus on either domestic policy or international policy. In addition to fostering a general knowledge of the policy process and policy analysis, it includes a topical specialty that complements students’
policy interests. The Public Policy Minor is intended to foster a critical understanding of policy issues and solutions.

Students who wish to pursue the minor must officially sign up for it no later than the third term prior to graduation. The six courses required for the minor may not count toward a student’s major or another minor.

**Prerequisite:** One course conveying quantitative or qualitative research methods. Options include: PBPL 10, ECON 10, GOVT 10, MATH 10, PSYC 10, SOCY 10, QSS 15, GEOG 11, GEOG 58, SOCY 11, or EDUC 11.

**Requirements:** A total of six courses. The courses must include:

- **PBPL 5:** Introduction to Public Policy
- Two (2) public policy methods courses. Choices include:
  - ECON 20: Econometrics
  - ENGS 18: System Dynamics in Policy Design and Analysis
  - PBPL 40 - PBPL 49
- Two (2) courses in a policy track (students may design their own policy track). Possible tracks include:
  - Domestic economics and public policy
  - Education and public policy
  - Environment and public policy
  - Health and public policy
  - Identity and public policy
  - Institutions, organizations and public policy
  - International relations and public policy
  - Law and public policy
  - Leadership and public policy
  - Urban issues and public policy
- One (1) Public Policy Seminar relevant to the chosen policy track. In certain circumstances, a student may petition the faculty advisor to substitute a Social Science seminar requiring a research paper relevant to the chosen policy track for this requirement.

**PBPL - Public Policy**

To view Public Policy requirements, click here (p. 614).

**PBPL 5 - Introduction to Public Policy**

Instructor: Shaiko

This course is designed as the gateway offering for students beginning to pursue a minor in public policy through the Rockefeller Center. The term will be divided into four main components: The Nature of Public Policy, Making Public Policy, The Policy Players, and The Policy Game. In the concluding section of the course, we will pursue specific policy domains-environmental policy, education policy, health care policy, welfare policy, immigration policy, and defense policy.

Distributive: Dist:SOC; WCult:W

**PBPL 7 - Leadership in Foreign Policy Decision-making**

Do heads of state matter when it comes to making foreign policy decisions? We certainly act as if they do and we vote as if they do. But it’s also possible that sometimes, structural conditions render leaders irrelevant—that any leader, when faced with the same constraints, could not help but make the same decision. Any responsible study of foreign policy will pay attention to questions of the conditions under which leaders matter as well as the constraints on foreign policy leadership. Therefore, in this course, we will study the essence of foreign policy decision-making with a special emphasis on the sorts of decisions that leaders can and do make. As we do so we will be introduced to a number of tools and models to help explain the process of foreign policy decision-making. These tools, concepts, and models will broadly include the political psychology of foreign policy decision-making, the dangers of decision-making during times of great crisis, and the role that various organizations play in foreign policy decisions.

**PBPL 20 - Contemporary Issues in American Politics and Public Policy**

Instructor: Wheelan

This course will explore significant topics in contemporary American politics and public policy. The course will examine issues related to the 2012 presidential election (e.g., fiscal policy, health care, education, etc.). Each week, students will be responsible for doing background reading on the subject to be covered; preparing questions for invited speaker; and writing a succinct memo summarizing and critiquing the content of the week’s policy lecture.

Distributive: Dist:SOC; WCult:W

**PBPL 21 - Crisis and Strategy in American Foreign Policy**

Instructor: Rezvani

This course addresses the frameworks, patterns, and practice of America’s strategic response to crisis. It will explore how institutions and policy traditions evolve in response to domestic and international challenges. It will examine some of the key political-military strategies that have been used by policy makers, including revisionism, hegemonic order building, engagement, retrenchment, and flexible integration. The course will also assess difficult
Throughout the course, students will work in small groups to develop the skills necessary to complete the portfolio. Completing the course readings and discussions will affirm the value of affirmative action or anti-discrimination policy/program. The central work of the course involves creating a portfolio of proposals to a panel of policy experts. The future in the Trump Administration and beyond, including relations with China, Russia, and the Middle East.

Cross-Listed as: COCO 025
Distributive: Dist:INT or SOC

PBPL 26 - Health Politics and Policy
Instructor: Nachlis
Is health care a right? Why does the United States spend more than comparable countries on health care but experience worse outcomes, and also lack universal coverage? How might the health care system be reformed to increase access and quality, and reduce costs? We consider these fundamental questions and explore a range of key issues, including health equity, mental health care, overdiagnosis and overtreatment, drug regulation, state policies, comparative health care systems, and the COVID-19 pandemic.

Distributive: Dist:SOC; WCult:W

PBPL 27 - Affirmative Action in Higher Education
Instructor: Herman
Since John F. Kennedy’s 1961 executive order to implement affirmative action policies, institutions of higher education have looked for ways to encourage minority and low-income students to matriculate. Some institutions, such as Harvard, UC Berkeley, UT Austin, and UMichigan, have experienced lawsuits against the policy’s implementation. As universities stress their desire for diverse, well-rounded, high achieving classes and continue to implement methods to attract highly qualified students, there is disagreement about which methods are both effective and fair. How can educational administrators, parents and community members work together to improve college access and increase equality? Do we still need to “take affirmative action to ensure that applicants are…treated…without regard to their race, color, religion, sex, or national origin,” or has affirmative action outlived its original purpose? Has the college access gap widened or shrunk? Are students’ experiences on campus living up to the goal of equal opportunity? This course will explore the topic of affirmative action through some traditional classroom techniques (reading/writing/discussion) as well as experiential education techniques (such as creating a public policy portfolio project, having conversations with professionals who administer affirmative action at colleges and universities, and pitching proposals to a panel of policy experts). To develop a policy campaign using techniques from writing to video to speeches. This course design attempts to raise students’ awareness of the multiple communication modes for making a compelling and persuasive policy proposal. To create their portfolios, students must advance an issue, demonstrate the techniques they have used to study and develop it, and effectively persuade their audience of the policy/program’s value. Student groups will meet with the professors bimonthly or more frequently (as needed) to stay on track and to get help with process and resources.

Cross-Listed as: GOVT 30.12
Distributive: Dist:SOC; WCult:CI

PBPL 28 - Law, Courts, and Judges
Instructor: Nachlis
This course explores fundamental questions about American law, courts, and judges. Do courts administer “Equal Justice Under the Law,” as the Supreme Court’s facade promises, or are cases determined by “what the judge ate for breakfast,” as Judge Jerome Frank famously claimed? Are judges political? Can courts produce social change, or is law a conservative force? What incentives shape the legal profession? Issues addressed range from civil rights to small claims courts and street harassment.

Cross-Listed as: GOVT 30.09
Distributive: Dist:TMV; WCult:W

PBPL 40 - Economics of Public Policymaking
Instructor: Wheelan
The course will use the basic tools of economics to analyze the most significant current public policy issues in the United States. Given the time constraints of the course, we will focus on the issues that the current presidential administration is likely to confront. The goal is to understand both the substance and politics of each issue. We will examine the effects of recent policy changes and analyze the likely effects of prospective reforms, particularly those that are likely to be debated in the political arena in the near future.

Distributive: Dist:SOC; WCult:W

PBPL 41 - Writing and Speaking Public Policy
Instructor: Kalish
This course is designed for students who intend to use their writing and communication skills to effect tangible change. Course materials will draw from various areas of public policy, and students will develop policy arguments through position papers, strategy memos, public talks, multi-media tools, as well as op-ed pieces and "letters to the editor" to be submitted to local newspapers. Students will strengthen their understanding and practice of public persuasion, as
well as their capacity to analyze the components of effective argument.

Prerequisite: PBPL 5 or permission from the Instructor

Cross-Listed as: WRIT 041
Distributive: Dist: ART; WCult: W

PBPL 42 - Ethics and Public Policy
Instructor: Rose

The course will use the basic tools of economics to analyze the most significant current public policy issues in the United States. Given the time constraints of the course, we will focus on the issues that the current presidential administration is confronting. The goal is to understand both the substance and politics of each issue. We will examine the effects of recent policy changes and analyze the likely effects of current reforms, particularly those that are being debated in the political arena now.

Cross-Listed as: GOVT 60.04
Distributive: Dist: TMV; WCult: W

PBPL 43 - Social Entrepreneurship
Instructor: Samwick

This course provides an introduction to the theory and practice of social entrepreneurship, defined as the process of finding innovative, sustainable solutions to social problems, particularly those related to poverty. Students will learn about the nature and causes of poverty, both domestically and internationally, and about the role that social entrepreneurs play in addressing poverty. The course culminates with teams of students developing business models for their own social entrepreneurship ventures.

Prerequisite: ECON 1
Cross-Listed as: ECON 077
Distributive: Dist: SOC; WCult: W

PBPL 44 - Polling, Public Opinion, and Public Policy
Instructor: 21F: Barabas, 22W: Jerit

The results of public opinion polls frequently dominate political news coverage and they often alter the behavior of politicians; moreover, political polls have started becoming news in their own right in recent years. In this course, we will explore the techniques that pollsters use to examine public attitudes and we will consider how that information can, and should, be used to formulate public policy. We will engage questions such as: To what degree can the public form meaningful preferences about complex political issues? What does a political opinion consist of, and how can it be measured? How can potential errors in polls be avoided? How does partisanship influence public opinion, and where do Americans stand on key policy issues? To what extent should politicians try to change public opinion rather than respond to it? How has the nature and role of public opinion shifted in an era of rapidly advancing polling technology and a changing media environment? In addition to examining the pertinent literature on topics such as these, we will conduct and analyze an actual public opinion survey as a class. Through a combination of theoretical and hands-on learning, students will leave the course with a firm understanding of these dynamics.

Cross-Listed as: GOVT 037 QSS 30.20
Distributive: Dist: SOC; WCult: W

PBPL 45 - Introduction to Public Policy Research
Instructor: Shaiko

This course focuses on strategies for, and actual practice of, conducting research relevant to public policy decision-making. Students will be exposed to a variety of research methodologies used in public policy analysis. This course is designed to be a core element of the Public Policy Minor and will also serve as a training ground for prospective applicants wishing to serve in the Rockefeller Public Policy Research Shop during the winter and spring terms.

Prerequisite: A course employing mathematical reasoning or statistical methods (e.g. ECON 10 or GOVT 10).
Distributive: Dist: SOC; WCult: W

PBPL 46 - Policy Implementation
Instructor: Nachlis

Good policies are neither self-executing nor self-enforcing. Likewise, bad policies are not self-destructing. Indeed, when the President signs a law, this is but the beginning of a new set of equally important political activities and policy battles. This course explores central features of implementation, including bureaucratic activity, judicial review, and street-level administration, and central concepts including principal agent relationships, delegation, oversight, interpretation, maintenance, and erosion, through key cases, including police, health care, and civil rights.

Cross-Listed as: GOVT 30.11
Distributive: Dist: SOC; WCult: W

PBPL 47 - Foundations of Leadership
Instructor: Jordon

This course has two purposes: 1) to investigate some of the most crucial texts of political philosophy, with focus on their assessments of the principles and sources of leadership, and 2) to investigate the political ideologies informing their authors' world views in order to better understand the goals to which we lead and are being led. We will view leadership not as the masterful work of an
elite few, but as the collective responsibility of informed citizenship. This course will prepare students "for a lifetime of learning and responsible leadership."

Distributive: Dist: SOC; WCult: W

**PBPL 48 - Policy Analysis and Local Governance**

This course analyzes the public policy challenges faced by local communities. Particular emphasis will be placed on the problems of urban areas, including education, crime, poverty, economic development, housing, and transportation. Throughout the course, students will use their home towns (or another area of their choosing) as a case study of how specific communities have attempted to address these challenges. The course examines the roles of various actors - citizens, non-profits, and government agencies at all levels - in effecting positive change in local public policy outcomes.

Prerequisite: PBPL 5.

**PBPL 49 - Environmental Policy Research Workshop**

Instructor: Cox

This course is designed to guide students in conducting research on environmental policy-based projects. These projects are based on requests from the Vermont and New Hampshire state legislatures. Students will be taught the basic theory and research methods in environmental social science, and spend the second half the course applying these skills in team-based settings to prepare proposal for research that could address the questions posed in the projects. The course will also prepare prospective applicants wishing to serve in the Rockefeller Public Policy Research Shop during the winter and spring terms.

Prerequisite: ENVS 2 or ENVS 3, or permission of instructor and a 10-level class (e.g., ECON 10, GOVT 10, PSYC 10, SOCY 10, PBPL 10)

Cross-Listed as: ENVS 70

Distributive: Dist: SOC

**PBPL 51 - Leadership in Civil Society**

This course focuses on aspects of leadership dealing with the accumulation and utilization of social capital through societal organizations. The literature cover nonprofit leadership, grassroots mobilization, religious leadership, interest group influence, organizational maintenance and political representation, and leadership problems associated with collective action. Students also discuss the roles of political parties as aggregators of societal interests and as intermediaries between citizens and state. Students also evaluate leadership capacity of the media to create informed citizens.

Distributive: Dist: SOC; WCult: W

**PBPL 52 - Leadership and Political Institutions**

This course explores how political leaders in the U.S. reconcile the constraints of public office with the opportunities to make major changes in society. Drawing from diverse materials on the executive, legislative and judicial branches of government, the course addresses the following questions: How does leadership differ in the public and private spheres? What personal skills and attributes affect the success or failure of leaders of political institutions? What criteria do/should citizens apply to public leaders? How do political context and historical contingency shape institutional leadership?

Cross-Listed as: GOVT 30.02

Distributive: Dist: SOC; WCult: W

**PBPL 81.02 - Lawyers and Public Policy**

Instructor: Bohmer

Distributive: SOC; WCult: W

**PBPL 81.03 - Urban Politics and Public Policymaking**

This course examines how and why cities attempt to address the problems that face them. It investigates who makes public policy in cities and why. The course then considers how and why these actors make policy. The final part of this class analyzes the effects of these policies. The class focuses upon urban education, housing, public safety, economic development, and other policy areas of significance to urban governments.

Distributive: SOC

**PBPL 81.05 - Poverty and Public Policy in the United States**

Distributive: SOC; WCult: W

**PBPL 82.01 - Military Statecraft in International Relations**

Instructor: Press

Cross-Listed as: GOVT 85.12

Distributive: SOC or INT

**PBPL 82.02 - Power, Politics and State**

Instructor: Campbell

Is America in crisis? The nation is more deeply divided politically, economically, and ideologically than it has been for generations. Washington is in gridlock. Inequality and poverty have been rising. People have become polarized over racial, religious and social issues. Some say the politics of identity and self-interest have been unleashed at the expense of the nation’s general welfare. Some disagree. This course explores these issues. It examines how political, economic and ideological power has been mobilized recently in the United States and with
what consequences, including the conservative shift in American politics, the 2008 financial crisis, the election of Donald Trump, and possibly the decline of the United States as the world’s superpower. The course draws on scholarly work in sociology, political science and economics.

Cross-Listed as: SOCY 053
Distributive: Dist:SOC; WCult:W

PBPL 83.01 - Persuasion and the Policy Process
Instructor: Jerit
This class examines how people form policy preferences and the process by which those preferences do—or do not—get translated into public policies in the United States. The course will examine three aspects of this process: elite rhetorical strategy, the media routines that generate coverage of policy debates, and mass opinion. We will assess the way political elites, the media mass, and ordinary people interact to create policies that can be either intelligent or pathological.

Cross-Listed as: GOVT 83.28
Distributive: Dist:SOC

PBPL 83.02 - Public Policy and Politics
Instructor: Barabas
This course explores political factors that influence the development of public policies as well as possible attitudinal and behavioral policy feedback effects on the population after their implementation. Public opinion will be central to the course with students encouraged to analyze survey data and polls. In most years, the class will have a topical issue focus (e.g., health care, climate change, retirement, immigration) depending upon world events and trends. Although the topical issue focus might vary each term, students may not repeat this course for credit.

Cross-Listed as: GOVT 83.27
Distributive: WCult:W

PBPL 84.02 - Health Economics and Policy
Instructor: Meara
The goals of the course are: 1) to understand the economic forces that have created the current challenges in US healthcare; 2) to develop skills that enable you to determine what types of information, data, and analyses are needed to analyze the economics of health policies designed to expand coverage, improve quality, and contain costs; and 3) through in-class exercises and a project, to perform and present economic analysis of current topics relevant for state and federal health system reform.

Prerequisite: Prerequisites - ECON 1 and ECON 10
Cross-Listed as: ECON 071
Distributive: Dist:SOC; WCult:W

PBPL 84.04 - Inequality and American Democracy
Instructor: Nachlis
Inequality – economic, political, and social – is among the most pressing and contentious issues of our time. What forms of inequality should we care about? How much is too much, or too little? What are inequality’s causes and consequences, which dimensions should be addressed, and how? We examine inequalities of income and wealth, political representation, education, incarceration, health, race, gender, and the future of work, ranging from philosophical and historical foundations to contemporary politics and policy.

Cross-Listed as: GOVT 83.24
Distributive: Dist:SOC; WCult:W

PBPL 85 - Topics in Global Policy Leadership
Instructor: Wheelan
This seminar will provide real-world international policy experience for students who will study a policy regime of a specific country during the fall term. The unique aspect of the course is that during the December break, the class will travel to the country of study and will spend two weeks meeting with policy leaders: politicians, academics, journalists, business leaders, diplomats, and other experts “on the ground” who can help to inform their topic of study.

PBPL 91 - Independent Study in Public Policy
Instructor: Shaiko
This course offers an opportunity for a student enrolled in the Public Policy Minor to do advanced, independent work under the direction of a faculty member in the area of public policy. The topic under study may relate to prior coursework in the Public Policy Minor, an off-campus internship, or a co-curricular activity sponsored by the Rockefeller Center. All students enrolled in Public Policy 91 in a given term should expect to meet regularly together for classroom instruction and discussion with Rockefeller Center faculty and staff. To enroll, a student must prepare a brief proposal that describes the topic to be studied, its relationship to the student's prior public policy courses or activities, and the student's goals for undertaking the research.

Prerequisite: PBPL 5 and the Research Methods course prerequisite to the Public Policy Minor

Religion
Chair: Reiko Ohnuma
Professors S. Ackerman, R. Balmer, S. Heschel, C. H. MacEvitt, R. Ohnuma; Associate Professors Z. Ayubi, R. Baum, G. Raz, A. K. Reinhart, D. Singh; Assistant Professors V. Booker, S. Swenson, D. Wilkinson; Visiting Professor J. E. Wright; Senior Lecturers G. Seton; Lecturers J. Sabella, E. Simpson, J. Vignone.

To view Religion courses, click here (p. 621).

Requirements for the Major

PLEASE REFER TO THE ORC OF YOUR MATRICULATION YEAR FOR THE APPROPRIATE REQUIREMENTS

Requirements for Class Years 2020 and later: The major consists of ten courses including:

1. At least two courses from the Introductory series on Religion (REL 1.xy through REL 19.xy).
2. At least one course from the Theories in the Study of Religion series (REL 20.01 through REL 20.07).
3. At least two courses from the Intermediate series on Religion (REL 21 through REL 74.xy).
4. One seminar in Religion (REL 80.xy or REL 81.xy).
5. One Culminating Experience Senior Colloquium (REL 85.01 or REL 85.02; See also REL 84). Consult the Chair for more information.
6. The major must include at least two Religion Department courses from among those designated as fulfilling the Non-Western requirement.

However, no more than two iterations of REL 1 may be counted to satisfy the major. Major programs are subject to the approval of the Chair.

Requirements for the Modified Major

Requirements for Class Years 2020 and later: The modified major consists of twelve courses of which seven or more shall be in the Religion Department, including:

1. At least two courses from the Introductory series on Religion.
2. At least one course from the Theories in the Study of Religion series.
3. At least one course from the Intermediate series on Religion.
4. Three additional courses in Religion (any level).
5. The modified major must include at least one Religion Department course from among those designated as fulfilling the Non-Western requirement.
6. The modified major must include at least two Religion Department courses from among those designated as fulfilling the Non-Western requirement.

However, no more than two iterations of REL 1 may be counted to satisfy the minor. Approval of the minor must be obtained from the Chair.

Requirements for the Minor

Requirements for Class Years 2020 and later: The minor consists of six courses to be selected as follows:

1. At least one course from the Introductory series on Religion.
2. At least one course from the Theories in the Study of Religion series.
3. At least one course from the Intermediate series on Religion.
4. Three additional courses in Religion (any level).
5. The minor must include at least one Religion Department course from among those designated as fulfilling the Non-Western requirement.
6. The minor must include at least two Religion Department courses from among those designated as fulfilling the Non-Western requirement.

However, no more than two iterations of REL 1 may be counted to satisfy the minor. Approval of the minor must be obtained from the Chair.

Non-Recording Option

Religion courses 20-87 are out of bounds for the NRO.

Transfer Credit

No more than three transfer courses, which may include REL 70 or REL 71 (on D.F.S.P.), will be accepted for major credit. All transfer courses must be approved in advance by the Department.

Foreign Study

Courses taken at the University of Edinburgh on the Department’s Foreign Study Program will normally be counted among the intermediate courses required for the major as listed above. The course offered by the Dartmouth faculty director is REL 74.

Religion Honors Program

Qualified majors may apply for admission to the Honors Program of the Department during the second or third terms of their junior year. Completion of the Honors Program is prerequisite to graduation with Honors or High Honors in the major subject.
The Honors Program of the Department of Religion is designed to encourage and enable a qualified major student to pursue a long-term independent research project on some topic of interest and importance. Through the project, as guided by a member of the faculty, the student should come to an understanding in depth of the content of the subject and the methodological procedures necessary to enable him or her to reach the desired goal.

In order to qualify for an Honors Program in the Religion Department, the student must have at the time of application an average of 3.0 in all subjects and 3.3 in the major.

During two terms of the senior year the honors student will pursue the project under the guidance of a selected faculty member by enrolling in REL 85.02 (Senior Colloquium for Honors Program) and REL 87 (Honors). The student is expected to produce a substantial thesis as the culmination of the project. A paper of seventy-five to one hundred pages would be considered usual, although the exact nature of the project might dictate a different length. The student will be expected to maintain at least a ‘B+’ level of performance throughout the two terms. Unless at least a grade of B+ is assigned the thesis and a cumulative average of 3.0 is maintained in the major, he or she will not be considered to have successfully completed the project. If in the judgment of the Department the student has failed to perform at the minimal level, it will have the right to terminate the project at the end of the first or the second term.

Preparation and Submission of Thesis Proposal. Plans for writing a thesis must be made during the junior year. The interested candidate should, in consultation with a faculty adviser, decide on a course of study, reading, and writing. The thesis proposal should ideally be 3-5 pages and include what will be examined and why, the preparation, approach, and where possible, note and discuss anticipated results, and be accompanied by a tentative bibliography. After the proposal is approved by the faculty adviser, it will be submitted to the Religion Department for approval. Since the Department may request that the student rewrite the proposal, we recommend that a proposal be submitted to the Department by the seventh week of the spring term of the junior year.

Thesis Writing. A student must write a two-term thesis, for which two course credits may be received. A thesis written during the fall and winter must be submitted by the end of the first week in May. A thesis completed during the spring term must be submitted by the end of the third week in May. An oral defense will be scheduled to occur typically during the last full week of spring term classes; a public presentation will be scheduled to occur typically on the last day of spring term classes. The final printed and bound thesis copies are due to the department office no later than the Friday before Commencement.

The Honors Program counts as fulfilling the Culminating Experience requirement (see courses REL 85.02 and REL 87).

**REL - Religion Courses**

*To view Religion requirements, click here (p. 619).*

**Introductory Courses**

**REL 1 - Topics in the Study of Religion**

Instructor: The staff

An introduction to the study of religion through topics from a variety of traditions and perspectives, including Buddhism, Christianity, Hinduism, Islam, and Judaism. Topics may be comparative or focused within a particular tradition and will allow students to understand the distinctive perspective the study of religion brings in both contemporary and historical contexts. Open to all classes.

Distributive: INT or TMV

**REL 1.01 - What Matters**

Instructor: Singh

What does it mean to say that something matters and how can we know that it does? This is an introductory course to modern religious thought, examining the quest for meaning, value, and significance as captured in religious, ethical, and philosophical language in Western tradition. The intent is to provide students with a broad exposure to the various ways humans in modernity have attempted to make sense of their condition. What are some of the changes brought about by life in the modern world that prompt new questions about human life and purpose? What new answers have been provided to explain our place in the cosmos and reason for being? We explore questions of belief, value, significance, meaning, suffering, love, and justice.

Distributive: Dist:TMV

**REL 1.02 - Contemporary Religion**

Instructor: Sabella

This course examines how religious movements and ideas shape daily life, politics, and world events in the twenty-first century. It emphasizes the historical contexts out of which these movements emerged and how they continue to exert influence in contemporary culture. It contends that understanding the obvious, subtle, and unexpected ways that this influence manifests helps us engage more effectively with the pressing issues of our time.

Distributive: Dist:INT or TMV
REL 1.03 - Patterns of Religious Experience

A comparative study of some of the basic patterns of religion. The course will focus upon such themes as religious experience, myths of creation, stories of religious founders and heroes, the origin and resolution of human suffering, and the structure and meaning of religious community and ritual. Source material for these themes will be taken from the literary and artistic resources of the following religious traditions: Buddhism, Christianity, Hinduism, Islam, and Judaism. Open to all classes.

Distributive: INT or TMV

REL 1.04 - Beginnings and Ends of Time

This course examines the visions of the emergence, decline, and extinction of the world in several religious cultures: Judaism, Christianity, Buddhism, Daoism, and contemporary USA. After investigating different ideas of how the world came to exist and various views of the end of time, we will compare different notions of salvation by which various religious cultures tried to assuage fears of the end of the world. With expectations for messianic redemption or visions of power these catastrophic imaginings and ideas of salvation served as the basis for missionary work and conversion as well as impetus for social and political transformations, rebellions, wars, imperial programs.

Distributive: INT or TMV

REL 1.05 - Religion and Gender

Instructor: Ayubi

Are all religions sexist? How can we know? This course is about approaches to the study of religions from the perspective of gender. We will read foundational works of religious history and feminist and queer theology that shed light on questions such as how normative masculinity, femininity, and sexuality are defined across religions, what is the difference between religion and culture in constructing gender and gender roles, and how are religious ideas gendered. In asking these questions we will focus on scholars’ interpretive methods in order to understand how variant they are and how important they are in creating meaning out of religious texts and practices about gender and gender roles. Specific topics will include the body, embodiment of religious rituals, purity, menstruation, religious authority, marriage and divorce, sexuality and sexual ethics, and motherhood.

Distributive: INT or TMV

REL 1.06 - Getting Religion

Instructor: Booker

This introductory course invites students to “get religion” as a historical and lived reality in the modern world by engaging religious belief, belonging, and behavior in the unfolding spiritual landscape of the Atlantic world, from the beginning of colonial encounters to the present era. Exploring how individuals, families, and groups of people “get religion” under free, un-free, and secretive conditions, students will examine key historical episodes of modern religious encounter, embrace, and exchange.

Distributive: Dist:INT or TMV

REL 1.07 - Getting It: Sex and Religion

In the minds of many (particularly Christians), religion and sex do not belong together. Religion is understood to direct the individual to the contemplation of the divine and provide a moral code; sex and sexuality is often perceived as too human and too tied to pleasure to have anything to do with the divine. But if we examine the relationship between sexuality and religion, we find that the two are inextricably intertwined. Indeed, the understanding of humans as sexed beings (that is, with differing sexual identities and as beings who engage in sex) is often grounded in religious texts, practices, and ideologies. Yet that religious grounding, while seemingly so solid, proves surprisingly flexible in practice. We will examine comparatively the ways in which religious stories, beliefs, and practices have shaped across several traditions. In addition to studying the normative ways that religions constructed sex and sexuality, we also examine how communities and individuals have re-interpreted, re-shaped, and refused the boundaries of normative religion.

Distributive: Dist:TMV; WCult:W

REL 1.08 - The Religion of Things

Instructor: Wilkinson

Despite our tendency to associate religion with "belief", all religion is necessarily mediated through things. This course approaches religion as a fundamentally material phenomenon, introducing students to its analysis from the perspective of artifacts, rather than through texts and ethnographic accounts. A wide range of case studies will be considered, from consumerist religion in the modern United States, to the relics and icons of medieval Europe, to the indigenous shrines of the ancient Andes.

Distributive: Dist:TMV

REL 1.09 - Religion and Drugs

Instructor: Wilkinson

Virtually no religious tradition is indifferent towards psychoactive substances. Wine is a sacrament in Christianity, as is cannabis in Rastafarianism. In the colonial Americas, the Catholic Church spent centuries attempting to suppress the use of indigenous crops like cocoa, which it perceived as diabolical. Ancient societies often deified alcohol and other mind-altering substances; Ninkasi, for example, was the Mesopotamian goddess of beer. Psychoactives (i.e. drugs) therefore offer a
fascinating comparative lens from which to examine religion.

Distributive: Dist:SOC

**REL 1.10 - Religion and Social Struggle**

This course examines twentieth and twenty-first century social struggles through a religious lens. Karl Marx famously described religion as the “opiate of the masses.” In practice, however, religion has been a resource for resistance as well as a mechanism of control. Drawing on case studies from the U.S. and Latin America, this course analyses how both sides of a conflict understand and deploy religious concepts. How do those in power approach religion? How does this differ from how those outside power structures mobilize it? How do uses of religion evolve to accommodate different cultural contexts and new political circumstances? These are some of the questions this course will consider in preparation for analyzing contemporary movements such as Standing Rock and Black Lives Matter.

Distributive: Dist:TMV

**REL 1.11 - Sisters, Sages, Seekers: Women and Religion**

Instructor: Swenson

What might a Buddhist nun, a Jewish schoolgirl, and an Olympic swimmer have in common? This course explores how women around the world pursue self-transformation through religious and spiritual practices. Course materials include followers of Buddhist, Christian, Muslim, Jewish, Hindu, and Native American religious traditions alongside those who might be called “spiritual but not religious.” We will consider how and why people use gendered self-disciplining practices – from meditation to athletics – while seeking life purpose and belonging. Open to all.

Distributive: Dist:TMV

**REL 2 - Topics in the Religions of Southeast Asia**

Courses under this rubric will focus in some depth on a particular aspect of religion in Southeast Asia—for example, a particular religion, country, time period, body of literature, type of religion, or religious movement. The topic will change with each course, and students may take multiple courses under this rubric. The topic will change with each offering, and students may take the course more than once. Sample topics include: Religions of Southeast Asia, Islam in Southeast Asia, and Religion in Contemporary Vietnam. Open to all classes.

Distributive: Dist:INT or TMV

**REL 2.01 - Religions of Southeast Asia**

Instructor: Swenson

This introductory course surveys religion in Southeast Asian contexts. We begin by analyzing the terms “Religion” and “Southeast Asia” as products of global politics. Then, we examine contemporary case studies from seven Southeast Asian countries to explore how religions shape local communities and life experiences. Our course materials lead us to investigate how Spirit Religions, Buddhism, Daoism, Christianity, and Islam intersect and inform understandings of embodiment, health, power, nature, and death. Open to all.

Cross-Listed as: ASCL 51.05
Distributive: Dist:TMV; WCult:NW

**REL 3 - Topics in Indigenous Religions**

This course will examine major issues in the study of indigenous religions. Different versions of the course will either take a particular geographic focus or address a specific theme. Students may take the course more than once. Sample topics include “Indigenous religions of the Americas”, “Religion in the Andes” (i.e. a geographic focus) and “Indigeneity, Religion and Ecology” (i.e. a thematic focus). Open to all classes.

Distributive: Dist:TMV

**REL 3.01 - Indigenous Religions in the Colonial Americas**

Instructor: Wilkinson

This course is designed to introduce students to key themes in the study of the indigenous religions in the Americas since the arrival of European settlers. Major areas of discussion will include missionization, religious freedom and oppression, the emergence of new and hybrid spiritual movements, and contemporary traditions of activism and protest, in both North and Latin America.

Cross-Listed as: ANTH 50.32
Distributive: Dist:TMV; WCult:CI

**REL 4 - Religion of Israel: The Hebrew Bible (Old Testament)**

Instructor: Ackerman

An introduction to the religion of ancient Israel through an examination of a number of the books of the Old Testament (Hebrew Bible), including Genesis, Exodus, Joshua, Samuel, the Psalms, Job, and the prophets. Attention will also be given to the religion of Israel’s Phoenician and Mesopotamian neighbors. Open to all classes.

Cross-Listed as: JWST 004
Distributive: Dist:TMV; WCult:W

**REL 5 - Early Christianity: The New Testament**

Instructor: Wright
An examination of primitive Christianity as witnessed by the writings of the New Testament. Emphasis will be given to the literary and historical analysis of the Gospels and Epistles and to an understanding of the pre-Christian and non-Christian religions of the Hellenistic world. Open to all classes.

Distributive: Dist:TMV; WCult:W

REL 6 - Introduction to Judaism
Instructor: Magid
This course offers an introduction to Judaism by examining three of its central spiritual manifestations: (1) development, observance, and study of the Halaka (religious law); (2) philosophical contemplation; and (3) mystical experience and theosophical speculation. Ancient and modern challenges to the tradition will be studied in some detail, and an attempt will be made to determine what might constitute a unity of such a diverse tradition. Open to all classes.

Cross-Listed as: JWST 6
Distributive: Dist:TMV; WCult:W

REL 7 - First-Year Seminars in Religion

REL 9 - Hinduism
An introductory survey of the Hindu religious tradition of South Asia from 1500 B.C.E. down to the present day. Emphasis will be given to the historical development of elite, Sanskritic Hinduism and its constant interaction with popular and local traditions. Open to all classes.

Cross-Listed as: ASCL 51.01
Distributive: Dist:TMV; WCult:NW

REL 10 - The Religions of China
Instructor: Raz
An introduction to China's three major religions—Confucianism, Daoism, and Buddhism—through the reading of classic texts. Also, a look at important elements in Chinese folk religion: ancestor worship, temples, heavens and hells, and forms of divination. Special attention will be paid to the importance of government in Chinese religious thought and to continuity and change in the history of Chinese religion. Open to all classes.

Cross-Listed as: ASCL 61.01
Distributive: Dist:TMV; WCult:NW

REL 11 - Religion and Morality
How can we claim that something is good, evil, right, wrong, just, or unjust? What is our basis for evaluation and judgment, and how can we hope to persuade others who hold different perspectives? This course explores the challenges of making moral judgments and offering ethical codes of conduct. We consider problems raised in Western philosophical and religious traditions primarily. Topics covered include foundationalism and post-foundational ethics, narrative and virtue ethics, and traditional vs. postmodern approaches. Issues explored may include: poverty and injustice, just war theory, race/class/gender concerns, biomedical ethics, business ethics, post-humanism, and environmental and animal rights. Open to all classes.

Distributive: TMV

REL 11.01 - God and Money
Instructor: Singh
This course introduces students to the problems and concerns of the study of religion by examining the interaction between economic and religious discourse and practice. Money has long been an object of reflection in philosophical, ethical, and religious traditions. We will explore money as a social phenomenon, a way human communities construct meaning and relationships, deal with power and obligation, and communicate what matters to them. We seek to understand what money is, how it interacts with moral categories like guilt and human value, and how it shapes areas of life such as identity, friendship, love, and sex. We also examine perspectives emerging from religious and ethical traditions concerning the presence of money in modern life. In so doing, we grapple with issues of individual and communal meaning, identity, and value judgment, as well as the challenge of defining what counts as religion—concerns that are integral to the discipline of religious studies and central to humanistic inquiry more broadly.

Distributive: Dist:TMV

REL 11.02 - Modern Religious and Anti-Religious Thinkers
Critical examination of some of the most influential modern proponents and opponents of religious faith, with special emphasis on the question: what is involved in belief in God? Open to all classes.

Distributive: Dist:TMV

REL 12 - Religion in North America
Instructor: Balmer
A survey of religion in North America, from colonization to the present, with attention to the ways that religion has shaped American history, culture, politics, and more. We'll examine the interplay of church and state, faith and skepticism, assimilation and particularity, as well as the role of religion in various wars and social movements, such as abolitionism, feminism, and civil rights. Open to all classes. Dist: TMV; WCult: W.

Distributive: Dist:TMV; WCult:W
REL 13 - Sports, Ethics & Religion  
Instructor: Balmer  
A survey of the origins and development of the culture of athletic competition in America, with roots in the “Muscular Christianity” movement of nineteenth-century England. We’ll examine the peculiar (religious?) passion that Americans invest in sports as well as the role that sports has played as an engine for social change. We look, finally, at some of the ethical issues surrounding organized sports. Open to all.  
Distributive: Dist:TMV; WCult:W

REL 14 - Introduction to African Religions  
Instructor: Baum  
This course introduces the study of Indigenous African Religions, their cosmologies, histories, ritual structures, and their relationships to other aspects of African cultures. Of particular importance will be ideas of gendered spiritual power, the spread of African-inspired religions to the Americas, and the nature of orally transmitted religious traditions. Conversion to Islam and Christianity and reconversion from these religions will also be studied. Finally, we examine the role of African religions in post-colonial African societies and the impact of globalization. Open to all.  
Cross-Listed as: AAAS 18.03  
Distributive: Dist:TMV; WCult:NW

REL 15 - Christians, Christianity, Christendom: A History  
An introduction to the variety of Christian beliefs, institutions, and practices from the first century to the end of the sixteenth century. Attention will be focused on understanding how Christian communities adapted and developed religious beliefs and practices in the face of changing historical circumstances. Open to all classes.  
Distributive: Dist:TMV; WCult:W

REL 15.01 - Other Christs: Introduction to Eastern Christianity  
Every church preaches its own Jesus: this course is devoted to the ‘other Christs’ of the Eastern Christian traditions. Some celebrate the liturgy in the language of Jesus, others in the language of the pharaohs, and their communities are spread across Egypt, the Middle East, Russia, the Caucasus, India and beyond. This course explores the rich, multicultural history of Christian communities whose origins reach back to early Christianity, and the challenges they face today.  
Cross-Listed as: RUSS 38.14  
Distributive: Dist:TMV

REL 16 - Intermediate Courses in the Islamic Religious Traditions  
Religion 16 courses are introductions. They assume no previous knowledge of either Islam or the Study of Religion. These are courses introducing the Islamic religious tradition from various perspectives.  
Distributive: Dist:TMV; WCult:NW

REL 16.01 - An Introduction to Islam  
Instructor: Vignone  
This course will provide students with useful tools for reading about, thinking about, or otherwise engaging with Islam and Muslims. It is first a survey of important topics in the study of the religion of Islam, including the Qur'an and the Prophet, the role of Islamic mysticism, Islam and the state, Islamic law, and Islamic theories of family and person. We also discuss Orientalism and the western study of Islam, so that we can understand ourselves as students of the Islamic tradition.  
Not open to students who have received credit for REL 8  
Cross-Listed as: MES 06.02  
Distributive: Dist:TMV; WCult:NW

REL 16.02 - Modern Islam  
In all the attention focused on Islam at present, a newspaper reader could be forgiven for supposing that between Muhammad and Usamah bin Laden, there has been no change in Islam. This course surveys developments in Islamic religious history, thought, and practice since 1800, with special emphasis on topics of current controversy, including the status of women, the nature of government, and the place of Islamic law. Readings will be mostly from primary texts written by contemporary Muslims, both modernists and Islamists.  
Not open to students who have received credit for REL 16.  
Cross-Listed as: AMES 015 MES 17.09 REL 016  
Distributive: Dist:TMV; WCult:NW

REL 16.03 - Islam in America  
Muslim Ban? Malcolm X? Enslaved Muslims? Hijab? This course is about Muslims in America, past, present, and future, and how American Islam is an extension of global Islam and the ways it is uniquely American. As we study religious identity and understandings of Islam in enslaved Muslim narratives, the civil rights movement, waves of immigration, pre- and post- 9/11, and the current Muslim ban, we pay close attention to theorizations of contested histories, race, gender, and class dynamics, intersectionality, model minorityhood, assimilation, discrimination, and Malcolm X’s visit to Dartmouth College, the history and the significance of the Malcolm X murals in the Shabazz building.  

REL 16.04 - Radical Islam: Jihadis, Salafīs, and Radical Reformists in the 20th and 21st Century
Instructor: Reinhart
Many academics, including Muslim academics, assert that Jihadism is “not religious” or “not really Islamic.” Nonetheless, members of these movements see themselves sincerely as the vanguard of the “real” Islam. This course is about how violent reformists fit into the Islamic heritage, and, as importantly, how they fit into global sociological, religious, and political tendencies characteristic of the modern world. Are these movements “Islamic?” are they “modern?” Why are they simply irrelevant to most Muslims?

REL 16.05 - The Qur’an and the Prophet
This course introduces students to the Qur’an through diverse perspectives, including through its revelation, assembly as a text, its interpreters, and the Qur’an as a material object. Students will learn about the life of the Prophet Muhammad in conjunction with the revelation of the Qur’an as well as the importance of the Prophet’s own sayings and example in Islamic law and practice. We will examine interpretations of the Qur’an from different chronological, geographical, and gendered perspectives. Students will leave the class with an understanding of the role of the Qur’an for Muslims and Islam historically and in contemporary times, as well as debates surrounding it. We will also examine contemporary expressions of Islamophobia, considering how misunderstandings of the Qur’an and its contents contribute to fears of the text and Islam. Open to all.

REL 16.06 - Islamic Spirituality: Sufism, Mysticism, Asceticism
An introduction to Sufism, using primary texts, films, and recordings. The course will first trace the development of Sufism, including its Christian and Hindu heritage. Then, using a Sufi manual of instruction, students will work their way through one influential approach to Sufi metaphysics. Finally, using films and recordings, the class will consider the rituals, practices, and role of the Sufi orders of Islam in Islamic history.

REL 16.07 - Islam and Medicine from the Medieval to Modern Eras
What was the place of medicine in medieval Islamic societies? How does medicine inform the social, political and sexual experiences of Muslims living in modernity? In this course students will explore primary and secondary sources describing Islamic medical ethics, drug use, dieting, contagion and sexual practice. Students will learn how ideas of religious devotion, class, sexuality, gender and political legitimacy changed in the medieval to postcolonial Middle East while remaining in constant conversation with medicine. Open to all.

REL 16.08 - Shi’i Islam
This course will explore the history, doctrines, and practices of Shi’i islam, focusing on the Twelver Shi’i faith in particular. The Twelvers are the largest of today's three Shi’i faith and comprise the majority of modern Iran's population, majorities in a number of Arab countries, and substantial minorities in others such as in India and Pakistan. Translated materials will be offered to allow students direct access to key Shi'i writings composed over the centuries. The issue of sectarianism conflict in Sunni/Shi'i history will be one of the course's subthemes.

REL 16.09 - Magic, Miracles, and the Prophet Muhammad
Instructor: Vignone
Do you believe in miracles? What are they, anyway? And how did the Middle East’s long history of miracle-working influence expectations of what Islam and the Prophet Muhammad would be like? Do modern Muslims still believe in and work miracles? In this course students will explore these questions through sources related to the prophetic history of the Middle East, the miraculous events of Muhammad’s lifetime and the role of miracles in the Islamic world today.

REL 17 - African Religions of the Americas
This class introduces the history and practices of African-derived religious traditions as they have developed in the Caribbean, Latin America, and Black American communities in the United States. These religious systems will be discussed with reference to their mainstream
representation (as "voodoo") and analyzed according to the more complex realities of their practitioners' everyday lives. Three themes to be explored in each tradition include 1) gender identity; 2) racial identity and resistance; and 3) aesthetics. Open to all classes.

Cross-Listed as: AAAS 83.05
Distributive: Dist:INT or TMV; WCult:CI

**REL 18 - Indian Buddhism**

Instructor: Ohnuma

An introductory survey of the Buddhism of South Asia from its beginnings in the 6th century B.C.E. to its eventual demise in the 12th century C.E. Emphasis will be given to the major beliefs, practices, and institutions characteristic of Indian Buddhism, the development of its different varieties (Hinayana, Mahayana, and Vajrayana), and its impact upon South Asian civilization at large. Open to all classes.

Cross-Listed as: ASCL 51.03
Distributive: Dist:TMV; WCult:NW

**REL 19 - Special Topics in Religion-Introductory Level**

Instructor: The staff

The contents of this course will vary from term to term. Open to all classes.

Distributive: TMV

**REL 19.03 - Rethinking the Divine**

Whether any gods exist; whether there is a divine power that created the world and/or controls what happens in it; whether a human being has a soul that is somehow connected to the divine: these were questions that puzzled intelligent people in ancient Greece and Rome just as they puzzle people today. In this course, we study the efforts of a range of ancient authors to think through these problems in a way that seemed intellectually satisfying. We look also at what these same thinkers had to say about the origin of religious beliefs in human cultures and about how a thinking person will want to interact with the beliefs and practices of his/her own culture.

Cross-Listed as: CLST 10.01
Distributive: Dist:TMV

**REL 19.06 - Modern Hinduism**

The names “Hinduism,” a religion, and “India,” a nation, come from the same word. What's at stake in mapping one onto the other? We will study the consolidation of Hindu traditions as a modern religion—how the “ism” got in the “Hinduism”—in historical context, examining the writings of thinkers like Gandhi, Radhakrishnan, and Vivekananda. One of the most compelling things about Hinduism’s global image is its association with nonviolence. But a major focus will be the development of Hindutva ideology, which recasts the religion in a militant, masculinized mode. Who speaks—within the academy and outside it—for Hinduism?

Cross-Listed as: ASCL 51.02
Distributive: TMV

**REL 19.14 - Cosmos, Justice, and Evil**

Religious notions such as afterlife, resurrection of the dead, end-time, karma, and providence can all be categorized as claims that the universe must somehow be just. The course will analyze several modalities of this claim, in popular and in philosophical forms, seeking to trace and to assess their source either to the demands of theodicy or to an intuition that life in an unjust universe is morally intolerable.

Distributive: TMV

**REL 19.19 - Religion and Technology**

This class explores the conceptual and ethical challenges raised by the relationship between religion and technology. In what ways is technology a response to the difficulties of labor and work, the biological limitations of bodies and lifespans, or the unpredictable forces of nature, for instance? What do Western religious and philosophical traditions have to say about such forms of augmentation of life capacities and processes? What promises and perils arise from technological progress? Why is the problem of technology seemingly central to the question of modernity, and how does religion fit in, if at all? We explore a variety of themes, which may include: bodily enhancements, biomedical procedures, humans vs. machines, robotics and AI, as well as digital and virtual worlds, asking what hopes and concerns certain religious and philosophical traditions in the West bring to such developments, and why it matters to think deeply about such issues.

Distributive: TMV

**REL 19.20 - Lost Books of the Bible**

Why do some Bibles include books that other Bibles omit, for example the Book of Enoch, the Gospel of Mary Magdalene, or the Apocalypse of Paul? Who decided which texts should be included or excluded from the Bible, and what criteria did they use? Were these texts somehow subversive, or did they reveal secrets that religious authorities wished to keep to themselves? This course will study the contents of various versions of the Bible and explain how Jewish and Christian communities decided which texts to include or exclude from their Bibles, decisions that played formative roles in shaping both communities.

Distributive: TMV
REL 19.22 - Gender and Judaism
Instructor: Greenblatt
Examining the intersections between gender, religious practice, cultural identity, and personal belief, this class will draw upon contemporary gender theory, religious texts and contemporary interpretations of Jewish thought and culture to examine the construction of Jewish identity through a feminist lens. Authors will include Alder, Boyarin, Heschel, Gilman, Peskowitz, Levitt and Biale. The class will also investigate questions of race, ethnicity, assimilation and Jewish gender issues in popular culture, including films and the work of performers Cantor, Benny, Berg, Midler, and Sandler. Open to all.
Cross-Listed as: JWST 053 WGSS 33.03
Distributive: Dist:TMV; WCult:CI

REL 19.23 - Ecology, Ethics and Religion
The biosphere has evolved a level of biodiversity unprecedented in earth history in a period (the last ten thousand years) known as the Holocene in which humans evolved from hunter-gatherers to agrarians and industrialists. Agriculture enabled the development of complex civilizations which had a tendency to press ecological support systems to the point of collapse. The latest of these – industrial capitalism – is now a global civilization and is putting pressure on the planet as a whole to the extent that the evolving and reparative capacities of life on earth are at risk. Despite a groundswell of environmental protest, and regulatory changes, mainstream conservation and climate science has not yet changed the direction of civilization in a more sustainable direction. Some in the conservation movement have joined forces with religious leaders such as Patriarch Bartholomew, and Pope Francis who penned an ‘environmental encyclical’ in 2015, in recognition of the enduring cultural power of religion and of its potential to promote pro-environmental beliefs and behaviors. In this course we will study the book which inspired the formation of the EPA in the United States, a survey of environmental ethics by the ‘founding father’ of the field, a history of ideas perspective on the cultural origins of the environmental crisis and possible faith-based repairs.
Distributive: Dist:TMV

REL 19.24 - Ancient Magic and Religion
Bindings and curses, love charms and healing potions, amulets and talismans – from simple spells to complex group rituals, ancient societies made use of both magic and religion to try to influence the world around them. In this course, we shall examine the roles of magic and religion in the ancient Greek and Roman worlds, paying special attention to their local contexts and to the myths and actual techniques ancient practitioners used to serve their clientele. We examine descriptions of religious and magical practices in the multicultural contexts of ancient Greece and Rome. Our sources include literary accounts, legal documents, and material objects, such as inscriptions, amulets, tablets, and papyri.
Cross-Listed as: CLST 10.07
Distributive: Dist:INT or TMV; WCult:CI

REL 19.25 - Religions of the Caribbean
This is an introductory course that explores African-derived religious practices of the Caribbean. Drawing on works of fiction, social science and historical studies, the course uses the African and Caribbean diaspora as analytical frameworks to understand the role of religion in diasporic communities. The course will explore the effect of New World slavery and migration and the process of creolization on Afro-religious practices. While the course focuses predominantly on the English-speaking Caribbean, we will also examine traditions in the French- and Spanish-speaking Caribbean, including Brazil. Open to all.
Distributive: Dist:TMV

REL 19.26 - Pentecostalism & Social Change
The study of global Pentecostalism is a rich subject geographically, theologically, and culturally. This course examines the origins of the tradition and its socio-political context in various regions of the world. Through case studies, history, and theoretical readings, we will explore the roots and routes of Pentecostalism throughout North America, Latin America, Africa, and the Caribbean. In addition to learning about the core doctrines and liturgical practices, the course also addresses the implications of Pentecostalism for race, gender and sexuality, and globalization. Open to all.
Distributive: Dist:TMV

REL 19.27 - Female Saints and ‘Feminine’ Spirituality
Instructor: Baker
The Apostle Paul famously declared to the Galatians that “there is neither male nor female… in Christ Jesus,” (Gal. 3:28). Men, however, came to dominate the Christian ecclesiastical scene despite the apparent position taken by Jesus and Paul on female spiritual leaders and roles. Yet women continued, and continue, to play key and important roles in the development of Christian identity despite the apparent suppression of their voices. In this course, we consider major female saints and spiritual innovators in the late antique and medieval Latin West. We will read and discuss figures such as Tecla, Perpetua and Felicitas, Radegund, Duodha, Hildegard of Bingen, Clare of Assisi, Christina the Astonishing, Mechthild of Magdeburg, and Marguerite Porete.
Distributive: Dist:TMV; WCult:CI
REL 19.29 - Women and Religion in Japan
This course examines how Japanese religious traditions (such as Shinto, Buddhism, and others) have informed the lives of women in premodern and modern Japan, and the roles that women have played as nuns, patrons, lay practitioners, and religious specialists. We will examine both what religious traditions said about women and womanhood, and how women interacted with religious views and practices, many of which denigrated or limited women’s participation.

Cross-Listed as: ASCL 61.05
Distributive: Dist:TMV

REL 19.31 - Religions of Japan
This course examines the historical development of the various religious traditions of Japan, from prehistoric to contemporary times. While prehistoric artifacts indicate what early Japanese religion may have looked like, the bulk of Japanese history features interactions between native, local Japanese practices and beliefs and the influence of continental traditions such as Buddhism, Confucianism, Daoism, and geomancy. Here, we will consider how the Japanese have adapted, combined, and redefined religious traditions over the centuries while interrogating what the word “religion” means within the context of each religion, sect or locality. Open to all.

Cross-Listed as: ASCL 61.06
Distributive: Dist:TMV; WCult:NW

REL 19.32 - Shinto: Foundations, Festivals, and Fox Shrines
Instructor: Simpson
Shinto has been called the way of the gods, a nature religion, a native Japanese religion, a nationalist religion, to name but a few of its many descriptions. In this class, we will spend a great deal of time figuring out what Shinto is and is not, debating the relative merits of these classifications. We will see that Shinto is, to say the least, a multifaceted tradition with a complex history and countless local variations. Open to all.

Cross-Listed as: ASCL 61.07
Distributive: Dist:TMV; WCult: NW

REL 19.33 - Religion, Politics, and Secularism
Is it necessary to keep religion out of politics? Why do religious communities continue to be influential in the public sphere? Is secularism the best response to religion’s role in politics? This course will examine these questions through a study of religion and political secularism in the Middle East, Europe, and the United States. We will take an inter-religious and comparative perspective to examine how and why religions impact political sovereignty, societies, and justice.

Distributive: Dist:INT

REL 19.36 - Putin's Sacred Reign
In 2020, a cathedral was built in Moscow that scandalized many Russians. For on its walls were mosaics of Joseph Stalin and Vladimir Putin, who were pictured receiving blessings from the Virgin Mary. Thirty years ago, it was unthinkable that Stalin, a man who murdered millions of Christians, would someday be depicted alongside the saints. How could the public memory of the twentieth century be reconstructed so dramatically, so quickly? In this interdisciplinary course, we shall learn that Russia is a country with an unpredictable past: one that is currently being exploited in order to sacralize the reign of Vladimir Putin.

Cross-Listed as: RUSS 38.16
Distributive: Dist:TMV

Theories in the Study of Religion Courses

REL 20.01 - Classic Works in the Study of Religion
Instructor: Reinhart
How do we study the evolution and development of religion in society? It was only in the late 19th century that “religion” became an object of academic study with such founders of sociology and cultural anthropology as Sir Edward Tylor, Émile Durkheim, Max Weber, and Mary Douglas, among others. This course invites you to become part of the discussion and to develop your own analysis and writing skills. Through critical readings and class discussions, the course is designed to provide a grounding in the methods and approaches that have created the academic field of “the study of religion.”

Distributive: Dist:TMV

REL 20.02 - Magic, Science, and Religion
Can significant distinctions be drawn between religious and magical ritual? Do magic and religion thrive in opposition to the science of their time or in congruence with it? The course addresses such theoretical questions in the study of religion from perspectives of history, philosophy of science, anthropology, and cognitive science. The course will suggest a general theory of conditions under which religion tends to be or tends not to be magical. Students will be invited to challenge that theory.

Distributive: Dist:SOC

REL 20.03 - Reason and Religious Belief
Instructor: Singh
A study of the principal religious and philosophical arguments for and against religious belief. The first part of the course will consider the question of the justifiability of religious belief through an appeal to religious experience
and mysticism, to rational theistic arguments, and to faith, showing the difficulties in each case. The second part of the course will cover alternatives to classical theism and the contemporary challenge of conceptual relativism and religious pluralism.

Distributive: Dist:TMV

REL 20.04 - Theoretical Approaches to the Study of Myth: Interpreting Ancient Near Eastern Mythology

This course examines various theoretical approaches to the study of mythology that have been developed by scholars in the past century by considering the ways in which these theoretical models have been used in the interpretation of mythologies of two of the great cultures of the ancient Near East, Mesopotamia and Canaan. Readings will include all the major myths of Mesopotamian and Canaanite tradition; major articles by theoreticians of myth such as Bronislaw Malinowski, Clyde Kluckhohn, and Claude Levi-Strauss; and various essays that attempt to apply these theoretical studies to the ancient Near Eastern mythological materials.

Distributive: Dist:TMV

REL 20.05 - What is Religion?

This course examines basic theoretical and methodological questions about the study of religion. We begin with several definitions and approaches to religion emerging from Sociology, Anthropology, Psychology and Cognitive science, to Comparative Religion. Next we explore the formation of World Religions, the emergence of New Religious Movements, and the problematic definitions of Asian religions. We also explore theoretical issues regarding ritual, mythology, sacred time and sacred space, the body and the cosmos.

Distributive: Dist:INT or TMV; WCult:NW

REL 20.06 - Shamanism: The Agony and the Ecstasy

Instructor: Simpson

Shamans are those who communicate with spirits. Or are they? In this course, we unpack various definitions of shamanism and the vigorous debate over this term (the agony). We consider the history of shamanism as a concept, looking at key theories and scholars. We explore shamanism around the world, drawing on scholarship, ethnographies, and lived experience of shamanic practices (the ecstasy). We delve into considerations of gender, medicine, colonialism and indigeneity.

Distributive: Dist:INT or TMV; WCult:NW

REL 20.07 - Archaeologies of Religion

Instructor: Wilkinson

Most of humanity’s religious history is only accessible using archaeological evidence. Moreover, even where texts are available, they tend to reflect the perspective of elites. This course therefore explores how archaeological methods can help us better understand religious phenomena in past societies. Topics will include the religion (or lack thereof) of our hominid ancestors (e.g. Neanderthals), the state religions of ancient civilizations, and the complementary perspective that archaeology provides on the World Religions.

Cross-Listed as: ANTH 50.37

Distributive: Dist:INT or SOC; WCult:NW

Intermediate Courses

REL 21 - Religion and Western Thought

Instructor: The staff

To what extent has religion been a shaping factor in the West’s development and can it be clearly distinguished from wider philosophical, sociological, and political trends? Students will begin to develop expertise in the study of religion and in theoretical literature addressing various questions and concerns raised by thinkers in the West in various historical periods. Open to all classes.

Distributive: Dist:TMV; WCult:W

REL 21.01 - Religion and Social Capital

Instructor: Singh

Why are relationships important? Why does reputation matter? Why is community crucial? How does trust emerge? Is there something sacred about social bonds? This class explores the idea of social capital and its significance for analyzing culture and society. We first seek to grasp the idea of “capital” as applied to the social and relational world, examining why social theorists have found this a useful lens of analysis. What does it mean to have social and cultural capital? We then explore how and why human communal bonds are formed and whether such interactions might justifiable be called “sacred” or “religious.” We consider gifts and reciprocity as ways we forge human connection, exploring philosophical and anthropological reflection on these practices. We examine changes in how community bonds are formed in light of globalization and new technology. We review concerns about the loss of community and connection, and about the barriers to access and advancement faced by those with less social capital. We also consider religious and ethical reflection on social capital as applied to human and divine beings. Readings include Bourdieu, Durkheim, Grewal, Mauss, Putnam, Sunstein, and Volf.

Distributive: Dist:TMV; WCult:W

REL 21.02 - Gods and Kings

Instructor: Singh

This course provides an advanced introduction to the relationship between religion and politics in the ancient
and medieval worlds, with particular attention to the Western tradition. We focus on Christianity, most centrally, while considering its relation to Ancient Near Eastern and Greco-Roman religions at specific moments. The course offers students with a basic historical and theoretical framework for thinking about the tensions and possibilities that emerge in the encounter between religious and political thought, institutions, and communities in these periods. This course challenges the assumption that religion and politics are self-evident and clearly distinct realms. Instead, we examine the ways that the boundaries between religion and politics have been continually blurred throughout history and across communities and traditions, and consider how “religion” and “politics” are interdependent and mutually reinforcing categories of thought and practice.

**Distributive: Dist:TMV; WCult:W**

**REL 21.03 - Religion and the Rise of Capitalism**

*Instructor: Singh*

Debates continue to rage about whether religion is compatible with a market society or whether it is opposed to it. Did Christianity, in particular, contribute to the rise of capitalism or has it constantly resisted it? How, if at all, did religious ideas play a part in the development of the market? This class delves into historical events and conversations that were central to new theories of commercial society, and provides students with a firm exposure to central ideas and institutions within capitalism. We examine the religious, theological, philosophical, and broader historical background to these elements, and well as their critical reception and impact. We consider thinkers such as David Hume and Adam Smith, as well as key modern interpreters such as Albert Hirschman, RH Tawney, and Max Weber.

**Distributive: Dist:TMV; WCult:W**

**REL 22 - Modern Judaism**

*Instructor: Magid*

This course will trace the ways Jews in modernity made sense, challenged, adopted, and adapted modern thought, culture, and politics in their recalibration of Judaism. The role Jews played in modernity is well-known. But how did Jews re-think Judaism in ways that enabled it and them both to survive the challenges of modernity and also retain sense of difference enough to enable Jews to assimilate yet not disappear. In this course we will look at some of the major trends and thinkers from the 17th through the 21st centuries as they struggled to reinterpret Judaism for the modern age. Open to all classes.

**Distributive: Dist:TMV; WCult:W**

**REL 23 - Jewish Mysticism**

The course examines the nature of claims to mystical experience or knowledge that appear in various aspects of the Jewish tradition, with primary focus on the enchanted and demonic worlds of the Kabbala. Forms of ecstasy and magic will be studied, along with their theoretical and social backgrounds and their impact on elitist and popular Jewish practice. Open to all classes.

**Cross-Listed as: JWST 62**

**Distributive: Dist:TMV; WCult:W**

**REL 24 - Infinity and Ethics: Modern Jewish Mysticism and Philosophy**

The course is conducted through close reading and discussion of works by Spinoza, Buber, and Levinas that translate insights from the Jewish experience to the idiom of modern European culture and, in so doing, make unique contributions to such subjects of modern religious thought as: God and infinity; religion, morality, and politics; autonomy and transcendence; and the role of Jewish intellectuals in the modern era. Open to all classes.

**Cross-Listed as: JWST 63**

**Distributive: Dist:TMV; WCult:W**

**REL 28 - Intermediate Courses in the Islamic Religious Traditions**

Students who take these courses will profit from previous exposure to the Study of Religion, the Study of Islam, the Gender Studies, or other suggested prerequisites as specified.

**REL 28.02 - The Islam of Morocco**

This course is designed to introduce you to Islam as it occurs in the Moroccan environment. Each unit will include either visits from Moroccan scholars or practitioners of the aspect of Islam under consideration. Discussions may include shar\'u012B\'u02BFah and shar\'u012B\'u02BFah-reform, the King as Commander of the Faithful, Dialect Islam in Morocco, Gender and Sex in Moroccan Islam, the History of Islam in Morocco.

**Distributive: Dist:TMV; WCult:NW**

**REL 28.03 - Muslim Feminism**

*Instructor: Ayubi*

This course introduces students to the diversity of feminist approaches on a transnational scale, by examining the movements, activism, media, literature, and Islamic debates produced in predominantly Muslim countries and beyond. We will interrogate concepts of transnationalism, feminism and modernity in terms of historical developments, theoretical usage, the context of colonialism, Islamic theologies, and the modern Muslim nation states. We will explore similarities and differences
in women’s experiences and feminist methodologies across global Muslim contexts. Course materials will be made up of several primary sources in translation that deal with intersectional issues such as religious and cultural practices, educational systems, politics, race and racism, socioeconomic class, legal rights for men and women, and marriage and the family.

Cross-Listed as: MES 19.02 WGSS 41.04
Distributive: Dist:INT or SOC; WCult:NW

REL 28.04 - Gender in Islam

Instructor: Ayubi

“Is Islam sexist?” “What does Islam really say about women?” This course seeks to dismantle the premises of these questions by asking who speaks for Islam, what makes something Islamic, and how are gender and gender roles constructed in Islamic texts and Muslim thought. We will make critical study of the constructions of gender, femininity, masculinity, sexuality, gender relations, marriage and divorce in classical and modern Islamic texts. In asking how Islamic notions of gender are constructed, we will examine both the roles religious texts have played in shaping Muslim life and how Muslim life in its cultural diversity affects readings of religious texts. We will read works of Muslim thought on gender relations in their historical contexts and in relation to one another. Through in-class discussions, critical reading exercises, and short essay assignments, students will strengthen their literacy on global gender issues, study religio-historical ideas on gender, analyze the role of texts in shaping gender in society, and vice versa.

Cross-Listed as: WGSS 43.06
Distributive: Dist:TMV; WCult:NW

REL 28.06 - Medical Ethics and Islam

Instructor: Ayubi

Religions and Religious authorities have long held control over the rights and rituals of the body from birth to death and in between. This course is about how Muslims have constructed medical ethics discourses, what are the major ethical problems that arise for Muslims seeking medical care, and how Muslims have managed religious and medical knowledge in healthcare decision making. Muslim Medical ethics is a story about gender, sexuality, race, religious authority, moral responsibility, God, colonialism, the state, capitalism, science and the practice of medicine. We will make critical study of all of these as we move from pre-modern to contemporary discourses and cover a variety of medical ethics issues in cases of reproductive health, abortion, organ transplantation, medical technology, end of life care, etc. We will also examine medical ethics theories/approaches and what might constitute Islamic theories/approaches for various Muslims.

Distributive: Dist:TMV; WCult:NW

REL 28.07 - Disease and Desire in Medieval Islam

This course investigates how Muslims from the medieval to modern eras made use of poetry, art, religious and scientific literature to understand their own bodies and those around them, especially in terms of disease and desire. Topics to be studied include how medieval Muslims described the allure and danger of different kinds of bodies, as well as their interest in homoeroticism, romantic love, the Prophet Muhammad’s sex life, the thrills of travel and sexual enhancement.

Distributive: Dist:TMV; WCult:NW

REL 29 - Modern Religion

Religion is a decisive force that shapes politics, culture, values, and everyday life. Courses taught in the Modern Religion rubric will focus on the distinctive features of religion as it shapes, and is shaped by, the world in which we live. Open to all.

Distributive: Dist:TMV; WCult:W

REL 29.01 - Religion in the Modern World

Instructor: Reinhart

As late as the 1970s, academics were convinced that religion was dying, and that it was less and less relevant to the contemporary world. Then came the Iranian Revolution, the Rise of the Religious Conservatives in the US, the settler movement in Israel, the appearance of militant Buddhists in Sri Lanka, and then of course 9/11. In this introductory, reading and discussion-based course we will first try to understand what we mean by the term “modernity” and what features are characteristic of it. Then we will consider and discuss a series of topics related to modernity and religion. Readings are designed to include both topical cases and classic works in the study of religion and modernity. Open to all.

Distributive: Dist:TMV; WCult:NW

REL 29.02 - Religion in the Modern World

Instructor: Reinhart

As late as the 1970s, academics were convinced that religion was dying, and that it was less and less relevant to the contemporary world. Then came the Iranian Revolution, the Rise of the Religious Conservatives in the US, the settler movement in Israel, the appearance of militant Buddhists in Sri Lanka, and then of course 9/11. In this introductory, reading and discussion-based course we will first try to understand what we mean by the term “modernity” and what features are characteristic of it. Then we will consider and discuss a series of topics related to modernity and religion. Readings are designed to include both topical cases and classic works in the study of religion and modernity. Open to all.

Distributive: Dist:TMV

REL 29.02 - Is God Back? Religion in Modern Europe

If God is not back, religion most certainly is. Religion arguably never went away in the USA, however the re-emergence of public religion is a European phenomenon. What does this re-emergence of religion mean? This course will explore how religion is contested and renegotiated in the public sphere, and the effects of these struggles on society, state, and religion itself. In discussing a broad range of empirical issues—such as the impacts of migration, national identity, religion and media, church-state relationships, and religion and welfare, the course puts a strong emphasis on situating European developments in a global context.

Distributive: Dist:TMV
REL 30 - Sacred Cities

This course will explore the ways in which different religious traditions shaped and have been shaped by the sacred cities in which they are established. We will explore the way in which local topography, communities, and tradition shaped the sacred urban landscape and how the local holy places of the city influence the larger religious tradition of which it is a part. Open to all.

Distributive: TMV

REL 30.01 - Sacred Cities: Rome

A visit to the “eternal city” today is a visit to several cities at once; classical, medieval, and Renaissance versions of Rome are layered top of each other and squeezed into the same space. This course seeks to explore the many Romes of the past through the city’s religious topography. How did the capital city of the Roman Empire become one of Christianity’s holiest cities? We will examine the history of Rome as revealed in the lives of emperors, popes, holy women, and aristocratic families as well as through the changing landscape of the city itself and its main religious monuments. Open to all.

Distributive: TMV; WCult:W

REL 30.02 - Sacred Cities: Jerusalem

According to G.A. Smith in his *Historical Geography of the Holy Land*, Jerusalem “stands aloof, waterless, [and] on the road to nowhere.” Yet, despite its geographic, agricultural, and economic limitations, Jerusalem has been transformed into a city of tremendous religious significance. This course will examine the cultural history of Jerusalem over three millennia, primarily as the symbolic focus of three faiths: Judaism, Christianity, and Islam. The course content will focus on the transformation of sacred space as reflected by literary and archaeological evidence by examining the artifacts, architectural monuments, and iconography in relation to written sources. In addition, this course will examine the creation of mythic Jerusalem through event and experience.

Distributive: INT or TMV

REL 31 - Sex, Celibacy, and the Problem of Purity: Asceticism and the Human Body in Late Antiquity

Instructor: MacEvitt

Late Antiquity (c. 300-500 C.E.) was a time when Christians struggled to understand how gender, family life, and religion could intermesh. Did virgins get to heaven faster than those who marry? Can a chaste man and woman live together without succumbing to lust? Were men holier than women? What about women who behaved like men? This course examines the changing understanding of the body, marriage, sexuality, and gender within Christianity through reading saints’ lives, letters, polemical essays, and legal texts. Open to all classes.

Cross-Listed as: CLST 11.06; WGSS 43.02

Distributive: Dist:TMV; WCult:W

REL 32 - Topics in the Christian Tradition

In this course we will engage in an in-depth study of a particular issue in Christian history or Christian ideology. The topic will change with each offering, and students may therefore take this course more than once. Sample topics include “Intellectuals and Superstition: The Creation of the Witch in Medieval Europe” and “Heretics and Inquisitors: The Cathar Religion in Medieval Europe.” Open to all classes.

Distributive: Dist:TMV; WCult:W

REL 32.01 - Christianity in Korea

This course examines Korean Christians' beliefs and practices, which have shaped and brought tensions to current socio-religious phenomena. Topics include the Korean origins of Christianity, the encounter between Catholicism and Neo-Confucianism in the eighteenth century, Protestant missionaries' role in medicine and education, the rise of nationalism and Christianity under Japanese colonialism, churches in North Korea, Pentecostalism under South Korea's rapid industrialization and democratization, Korean missionaries around the world, and Christian musicians and entertainers in Korea, as well as the interface between gender and Korean Christian culture.

Cross-Listed as: ASCL 64.04 HIST 78

Distributive: Dist:TMV; WCult:NW

REL 32.02 - Into and Beyond Dante's Inferno

The work of Dante Alighieri (1265-1321) stages from beginning to end a struggle between personal desire, social obligation, and the conflicting cultures of Christian religion and the body politic. The unprecedented fusion Dante made of these elements in the Commedia [The Divine Comedy] has guaranteed his great poem a vast public, extending across world cultures and the seven centuries since it initially traveled among elite readers in north-central Italy in the early decades of the fourteenth century. This course will first examine the development of Dante’s poetic voice in La vita nova [The New Life, ca. 1293-94] and then focus on its subsequent expansion into an all-encompassing vision of life and death in Inferno [Hell, ca. 1306-09], the first of the three canticles of the Commedia. Situating Dante in his own time and place will be essential to our analysis of his poetry, but attention to the multiple ways that Dante’s work has been interpreted, translated, and appropriated in other periods, languages, and media will provide a critical framework for understanding its enduring appeal, why – in the words of Italo Calvino – it “has not finished saying what it has to say.” Readings, lectures, discussion, and written work – to include a midterm exam, two short essays, and a final
digital project – will be in English. Students taking the course for major or minor credit will attend a weekly X-hour and write the two essays in Italian.

Cross-Listed as: ITAL 33.01
Distributive: Dist: LIT; WCult: W

REL 32.05 - Second Vatican Council and its Theologians

This course introduces the history and the major accomplishments of the Second Vatican Council (1962-1965), and the writings of key theologians that gave shape to it behind the scenes. Fifty years on, this remarkable event still offers instructive insights for how we understand modernity, inter-faith dialogue, human rights, and the ongoing development of the Christian faith.

Distributive: DIST: TMV; WCult: W

REL 32.06 - Jewish Views of Christianity

What do Jews think of Christianity? The two religions took shape under each other’s influence as well as in repudiation of one another’s claims, but while we often hear about Christian anti-Judaism, we rarely learn about the other side of the story. This course will examine an ancient Jewish version of the Gospels, medieval Jewish polemics regarding Christian dogma, Christian influences on Jewish mysticism, modern Jewish scholarship on Christian origins, Jewish artistic representations of Christian symbols, and post-WWII Jewish efforts to create new and positive relations with Christians.

Cross-Listed as: HIST 94.11 JWST 36.02
Distributive: Dist: INT or TMV; WCult: CI

REL 32.07 - Medieval Practices of Ascension

This course considers medieval western Christianity through the lens of practices related to “ascending towards” or “becoming like” God. A central feature of western religiosity prior to the Reformation, men and women, secular and religious, sought to transcend the shackles of base matter in order to become new, spiritual creatures. In this course, we investigate their journeys, and we question why the Reformation sought to curb practices of ascent and whether or not it succeeded.

Distributive: TMV

REL 32.08 - Catholicism & Orthodoxy in the Americas

A survey of Orthodox and Catholic expressions of faith in the New World, beginning with New Spain in Latin America, New France in Québec, and Russian Orthodoxy in Alaska to the present. Discussions will include treatment of Native Americans, immigration and nativism, debates about cultural assimilation, the role of women, liberation theology, the impact of Vatican II and Humanae Vitae, and clergy sex scandals.

Distributive: Dist: TMV; WCult: W

REL 32.09 - Heresy and Authority

What makes “right belief” right? Who decides what is “orthodox” and what is “heterodox”? Who controls the label “heresy”? This course explores ideas of heresy and authority within the history of western Christianity by focusing primarily on the eleventh through the fifteenth century. Considering various struggles for secular and spiritual authority, we will also question the authority given (and taken) by the authors of history (both primary and secondary). Open to all.

Distributive: Dist: TMV; WCult: W

REL 33 - Christians, Jews, and Muslims in the Age of the Crusades

This course will focus on the interactions of the three major religious communities of the medieval Mediterranean—Christians, Jewish, and Muslim—beginning with the First Crusade in 1096 and ending with the arrival of the Black Death in 1347. By examining topics such as pilgrimage, crusade, and jihad, the status of minority communities, and intellectual life, we will explore how Christians, Jews, and Muslims clashed, cooperated, influenced, and misunderstood each other. Open to all classes.

Cross-Listed as: HIST 91.01; JWST 36.01
Distributive: Dist: TMV; WCult: W

REL 34 - Christianity and Conversion in the Northern World: Vikings, Celts, and Anglo-Saxons

Instructor: MacEvitt

This course explores the transformation of Christianity in the early medieval period. The conversion of ‘barbarian’ peoples in northwest Europe between the years 400 and 1000 meant Christianity had to adapt to a different environment than the Roman and Mediterranean one in which the religion developed. The northern world was without the Roman Empire, without cities, with different languages, cultures and notions of relations between the human and divine worlds. This course explores the impact the conversion of Germanic, Anglo-Saxon, Celtic, and Nordic communities had on Christianity, as well as why communities of the northern world voluntarily chose to adopt this new religion. Open to all classes.

Cross-Listed as: HIST 91.02
Distributive: Dist: TMV; WCult: W

REL 35 - Religion and Science

The purpose of this course is to provide an overview of current developments in the natural sciences and religious or theological interpretations of them. Emphasis is given to understanding an emerging consonance between religion and science in contrast to models of dissonance and
conflict, or independence and dialogue. Particular attention is given to (1) evolutionary biology, (2) relativity physics, (3) cosmology, and (4) process theology and philosophy. Open to sophomores, juniors, and seniors.

Distributive: TMV

REL 37 - Mountain Gods, Mummies and Messiahs: Religions of the Andes
Instructor: Wilkinson

This course provides an in-depth examination of the religious traditions of the central Andes (roughly modern Peru and Bolivia). The chronological scope of the course encompasses the past 3,000 years, with equal weight given to both ancient and modern Andean religions. Major themes to be studied include: ritual sacrifice, ritual sex, apocalyptic narratives, the veneration of mummified ancestors, Inca religion, the Spanish Inquisition in the Americas, Catholic anti-idolatry campaigns and colonial messianic movements.

Distributive: Dist:TMV; WCult:NW

REL 40 - Topics in the Religions of South and Southeast Asia
This course will focus in some depth on a particular aspect of religion in South or Southeast Asia—for example, a particular religion, sect, time period, body of literature, type of religion, or religious movement. The topic will change with each offering, and students may take the course more than once. Sample topics include: Gods, Demons, and Monkeys: The Ramayana Epic of India; Hindus and Muslims in India; and Contemporary Vietnamese Religions. Open to all classes.

Distributive: Dist:TMV; WCult:NW

REL 40.01 - Gods, Demons, and Monkeys: The Ramayana Epic of India
Instructor: Ohnuma

The ancient Indian epic known as the Ramayana is a stirring, martial tale of gods, demons, and monkeys. Beginning with the classical Sanskrit version composed as early as 200 B.C.E., India has produced hundreds of different versions of the Ramayana, in different languages and media, with different agendas and for different audiences. We will examine this epic tradition in all of its complexity, making ample use of different forms of media.

Distributive: Dist:TMV; WCult:NW

REL 40.07 - Hindus and Muslims in India
Instructor: Ohnuma

Hindu nationalist rhetoric in India today claims that India has always been an inherently “Hindu state,” and that “Hindu” and “Muslim” are two distinct, mutually exclusive, and oppositional identities locked in a relationship of eternal conflict. These claims raise a host of difficult questions: Was there any such thing as a collective “Hindu” identity prior to the arrival of Islam? What was the relationship between “Hinduism” and “Islam” during the medieval period? To what extent was British colonialism responsible for creating “Hindu” and “Muslim” identities in the modern period and then projecting them into the past? This course will examine “Hindu” and “Muslim” identities in both medieval and modern India. Open to all.

Distributive: Dist:TMV; WCult:NW

REL 41 - Topics in the Study of Buddhism
This course will focus in some depth on a particular topic in the study of Buddhism, either limited to a particular geographical region or across the Buddhist world. Topics may pertain to particular bodies of Buddhist literature, particular Buddhist movements, or aspects of Buddhist society, thought, or culture. The topic will change with each offering, and students may take the course more than once. Sample topics include: “Mahayana Buddhist Texts,” “Tantra in East Asia,” “Buddhism and Film,” and “Women, Monasticism, and Buddhism.” Open to all classes.

Distributive: Dist:TMV; WCult:NW

REL 41.01 - Mahayana Buddhist Texts

An in-depth, discussion-based exploration of the rich, imaginative world of Mahayana Buddhist literature, including both philosophical treatises and religious scriptures (including the Heart, Diamond, Lotus, and Vimalakirti Sutras). Open to all classes.

Distributive: Dist:TMV; WCult:NW

REL 41.02 - Buddhism and Film

“What is Buddhism?” “How can it be something expressed in and through the medium of film?” and “What actually constitutes a Buddhist film?” After an introductory survey of central topics in Buddhism, this course will explore the cinematic presentation of Buddhist religion, philosophy, practices, saints, and institutions. By learning to watch films critically from a Buddhist perspective, students will explore the process through which we create the meaning in films and everyday life. Open to all.

Cross-Listed as: FILM 47.22

Distributive: Dist:TMV; WCult:NW

REL 41.03 - The Struggle for Liberation: Women, Monasticism, and Buddhism

This course will examine the relationship between women, monasticism, and Buddhism through an interdisciplinary and transnational perspective. We will begin in ancient India by examining the founding of the Order of Nuns; the
monastic lives, spiritual poetry, and struggles of early Buddhist nuns; and the decline and death of the nuns’ order in India. Then we’ll move on to explore a wide range of topics from throughout the Buddhist world—such as the economic and political power of the nuns’ order in parts of East Asia; the death of the nuns’ order and the phenomenon of low-status “unofficial” nuns throughout much of Southeast Asia; the power of yoginis and other non-monastic spiritual roles for women in Tibet; the increasing phenomenon of Western nuns; and the feminist possibilities (or impossibilities) inherent in Buddhist doctrine. The term will conclude with a sustained look at the contemporary global movement to re-establish the valid ordination lineage for nuns throughout the world—a movement in which the voices arguing “for” and “against” are not always what one might presume them to be.

Cross-Listed as: WGSS 44.07
Distributive: Dist:INT; WCult:NW

REL 41.04 - Buddhist Meditation Theory
Instructor: Seton
The Buddhist theory of meditation was first articulated 2,500 years ago and has since been adapted to numerous cultural contexts in Asia and the West. This course offers a survey of the three traditional religious frameworks for meditation practice, but also pays some attention to the secularized applications of mindfulness techniques in modern society and to the current status of scientific studies on the effects of those techniques. The course primarily concerns theoretical questions and controversies surrounding Buddhist meditation, but students will get the chance to experiment with secular mindfulness techniques outside of class and to attend a field trip to a local Buddhist temple. Open to all.

Cross-Listed as: ASCL 61.04
Distributive: Dist:TMV; WCult:NW

REL 41.05 - Tibetan Buddhism
Instructor: Seton
An introductory survey of Buddhism in Tibet from its inception in the 8th century until the present day. Emphasis will be given to the central doctrines, practices, and institutions characteristic of Tibetan Buddhism, its development of various popular and elite religious ideals (householder, nun, monk, scholar, solitary hermit, crazy yogi, and female dakini), and its evolving identity in the West. Not open to students who have received credit for REL 19.21 or ASCL 61.02.

Cross-Listed as: ASCL 51.04 REL 19.21
Distributive: Dist:TMV; WCult:NW

REL 41.06 - Buddhism in Korea and Japan: From Tribute Missions to Temple Tourism
Buddhism has long been an established religious tradition and important aspect of cultural heritage in both Korea and Japan. However, there are key differences in how Buddhism developed and how the religion functions today. In South Korea, most people classify themselves as Buddhist or Christian; in Japan, the majority consider themselves non-religious, yet visit Buddhist temples and hold Buddhist funerals; in North Korea, roughly 10,000 Buddhists remain in spite of religious persecution by the state. Clerical marriage is widely accepted in Buddhist sects throughout Japan, whereas the practice has been the subject of heated debate in South Korea since the 1950s. How did these differences emerge, and what common ground remains?

Cross-Listed as: ASCL 61.08
Distributive: Dist:TMV; WCult:NW

REL 41.07 - Buddhism, Sexuality, & Gender in Southeast Asia
Instructor: Swenson
This intermediate-level course explores how Buddhist concepts of embodiment affect daily life and society in Southeast Asian contexts. We will also consider how cultural understandings of gender and sexuality influence local religious practices in the Buddhist-majority countries of Thailand, Vietnam, Cambodia, and Myanmar. Our materials will lead us to analyze how religion, sexuality, and gender intersect with one another, as well as how these intersections impact broader understandings of authority, wisdom, beauty, death, and loyalty.

Distributive: Dist:TMV; WCult:NW

REL 42 - Goddesses of India
Instructor: Ohnuma
This course will use both elite and popular Hindu religious texts in conjunction with contemporary sociological and anthropological accounts, scholarly analyses, visual art, and film to explore the diverse identities and roles of India’s many goddesses, both ancient and modern. Special emphasis will also be given to the relationship between goddesses and women. Open to all classes.

Cross-Listed as: WGSS 43.04
Distributive: Dist:TMV; WCult:NW

REL 43 - Buddhism in America
Instructor: Ohnuma
This course will focus on the transmission, growth, and transformation of Buddhism in America—treating American Buddhism not as an Asian tradition transplanted onto American soil, but rather as a distinctive regional
variety of Buddhism that has its own distinguishing characteristics. We will focus on the history of Buddhism in America, major varieties of American Buddhism (including Zen, Tibetan Vajrayana, Theravada, and Soka Gakkai), and contemporary issues in American Buddhism.

Distributive: INT or Dist:TMV; WCult:W

REL 46 - Daoism: Transformations of Tradition
Instructor: Raz
In this course we will explore the historical developments and transformations of Daoism from its ancient roots to present-day practices. We will begin by looking at early traditions of immortality seekers and self-cultivation and at the religious and philosophical ideas in the ancient Chinese texts of the Laozi, Zhuangzi, and Guanzi. We will also examine recent archaeological findings, imperial religious practices, and the complex interaction of Daoism with Buddhism. We will in addition look at contemporary Daoist practices in China and Taiwan. Along the way we will devote special attention to meditation and divination techniques; alchemy and sexual techniques for transcendence; the place of women and the feminine in Daoism. Open to all classes.

Distributive: Dist:TMV; WCult:NW

REL 47 - Buddhism in China
A study of the advent of Buddhism in China, its accommodating yet transforming response to Chinese traditions and values, the emergence of the authentically Chinese schools of T'ien-T'ai, Hua-yen, Ch'an, and Pure Land Buddhism, and the enduring Buddhist heritage of China. Open to all classes.

Distributive: Dist:TMV; WCult:NW

REL 48 - Body and Sex in Chinese Religions
Instructor: Raz
In this course we will explore how different traditions in China conceptualized the relationship between the human body and the universe and how individuals can attain immortality and transcendence. After examining different conceptions of the human body in traditional China, we will focus on sexual practices advocated by the traditions of immortality seekers, Daoism, and esoteric Buddhism as ways to enlightenment and transcendence. In our explorations we will look at the earliest records of sexual practices found in tombs of the 3rd century B.C.E. and examine Daoist sexual initiation rites and secret rites practiced by emperors. We will consider how notions of cosmic powers and forces are expressed in sexual rituals and how society views such practices. We will also compare Chinese notions of the body and of sexual practices with those found in West. Open to all classes.

Cross-Listed as: WGSS 43.05

Distributive: Dist:TMV; WCult:CI

REL 49 - Topics in East Asian Religions
In this course students will read and discuss the latest research on one of the religions of East Asia, or a particular sect, movement, or time period in the history of East Asian religions. The topic will change with each offering. Thus, students may take this course more than once. Sample topics include: Literature and Religion in China, Politics and Religion in China, and The Body in Japanese Religion. Open to all classes.

Distributive: Dist:TMV; WCult:CI

REL 49.01 - Apocalyptic Thought
In this class we will examine ideas about the cataclysmic end of the world, possible ways to survive such calamities, or to bring them forth appear in several religious traditions in East Asia. This course examines a variety of such eschatological and salvific ideas, beginning with Daoist and Buddhist scriptures in medieval China, proceeding through various religious rebel movements to modern cults such as Aum Shinrikyo in Japan and Falun Gong in China.

Distributive: Dist:TMV; WCult:CI

REL 53 - Religion, Healing, and Medicine
This class explores a range of religious approaches and traditional therapeutic responses to bodily suffering, with an eye towards examining the way medical cultures reflect and construct religious identity. Most examples of healing practices to be discussed are drawn from religious communities and ethnic groups active in the contemporary United States. While addressing such topical issues as reproduction, sexuality, substance abuse, and dieting, the course also analyzes the taboos, values, and rituals of Western biomedicine. Open to all classes.

Distributive: Dist:INT or SOC; WCult:CI

REL 54 - African American Religion and Culture in Jim Crow America
Instructor: Booker
Jim Crow segregation in the United States compelled many African American men and women to use their bodies—their hands, feet, and voices—to create sacred scenes, sounds, and spaces to articulate their existence in America. This seminar focuses on religious production to explore African American culture in the post-Civil War era. Students will analyze a variety of sources, including music, visual art, film, religious architecture, sermons, food, theater, photography, and news media. Not open to students who have received credit for AAAS 80.08.

Cross-Listed as: AAAS 22.10 AAAS 80.08

Distributive: Dist:TMV; WCult:CI
REL 55 - Ancient Egyptian Religion
The great civilization of ancient Egypt, which spanned a period of almost 3000 years, has left us a wealth of literary, artistic, architectural, and funerary religious remains. This course will focus on three major aspects of Egypt's religious heritage: (1) the pantheon and the myths and stories about Egypt's gods; (2) temple complexes; and (3) tombs, especially the tombs of royalty and other nobles. Open to all classes.
Distributive: Dist:TMV; WCult:NW

REL 56 - Women and the Bible
As contemporary Jewish and Christian communities of faith face the question of the role of women within their traditions, many turn to the Bible for answers. Yet the biblical materials are multivalent and their position on the role of women unclear. This course intends to take a close look at the biblical tradition, both the Hebrew Bible (Old Testament) and the New Testament, to ask what the Bible does—and does not say—about women. Yet the course is called "Women and the Bible," not "Women in the Bible," and implicit in this title is a second goal of the course: not only to look at the Bible to see what it actually says about women, but also to look at differing ways that modern feminist biblical scholars have engaged in the enterprise of interpreting the biblical text. Open to all classes.
Cross-Listed as: JWST 028 WGSS 43.03
Distributive: Dist:TMV; WCult:CI

REL 57 - Readings in the Biblical Tradition
In this course we will engage in an in-depth study of a particular biblical book or of a particular biblical motif. The topic will change with each offering, and students may therefore take this course more than once. Sample topics include "The Exodus Tradition," "Job and the Joban Tradition," and "Apocalyptic Traditions." Open to all classes.
Distributive: TMV

REL 57.01 - The End of the World
This course will examine expectations of the end of the world with roots in the interpretation of the Hebrew Bible and New Testament. Students will survey ancient near eastern concepts of the cataclysmic end of history, understand the theological and social origins of apocalyptic literature, and examine the primary examples of the genre in early Judaism and Christianity. The course will also investigate modern apocalyptic movements guided by eschatological interpretations of the Bible.
Distributive: TMV

REL 57.02 - The Jewish Jesus
It is certain that Jesus of Nazareth lived in the first century C.E. and that his followers interpreted his life and death as harbingers of a new age. However, recent scholarship has made clear that Jesus was fully embedded in the Judaism of his time: the Jewish diversity of the period and Jewish resistance to the Roman Empire. This course examines the life of Jesus the Jew prior to the early Church's interpretation of Jesus as Christ; modern Jewish and Islamic views of Jesus, as well as his portrayal in contemporary film and art, will also be explored.
Cross-Listed as: JWST 74.01 MES 17.08
Distributive: Dist:TMV; WCult:W

REL 57.06 - History of Heaven
This course presents an examination of the origins and early evolution of images of the afterlife among the ancient peoples of the Mediterranean basin and Near East. The course will focus on ancient Israelite, biblical, and early Jewish and Christian images. Later developments of these images within Western religious will also be discussed.
Cross-Listed as: JWST 072
Distributive: Dist:TMV

REL 57.07 - Apocalyptic Imagination
Instructor: Wright
Throughout the centuries individuals from vastly different cultures have sought to answer the question “what is the meaning of life?” through apocalyptic speculation. This survey of Jewish and Christian apocalyptic literature will explore the sociological significance of this tradition in the history of Western culture. This study will begin with biblical antecedents, cover several early Jewish examples, and treat some early Christian apocalypses. We will explore medieval Jewish, Christian and Islamic texts before turning our attention to modern apocalypticism. Open to all.
Distributive: Dist:TMV

REL 58 - Topics in the Bible and Archaeology
In this course we will study the relationship between various biblical texts and archaeological discoveries from the ancient Near East, including ancient Israel, and from the Roman Empire during the period of Christian origins. Particular attention will be paid to the ways in which archaeological data can be used and abused in attempts to understand the Bible better. The specific topic of the course will change with each offering, and students may therefore take this class more than once. Open to all classes.
Distributive: TMV

REL 59 - Reformations: Protestant and Catholic
This course examines the theological, social, psychological, and cultural motors driving change within
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the institutional church during the 16 and early 17th centuries, the Protestant challenge to Catholicism, and the Catholic response. Manifestations of the need for change are found in great literature of the era and also exemplified in art and film. Scope spans Europe and the Colonies. Open to all classes.

Distributive: Dist:TMV; WCult:W

REL 61 - Religion and the Civil Rights Movement
Instructor: Booker

This course presents the religious dimensions of civil rights activism in twentieth-century United States history. Students will explore the theologies of African American Protestants, liberal religious thinkers, and adherents to Gandhian philosophy as they waged nonviolent struggle against Jim Crow oppression in the United States. In-class discussions and exercises will examine the religious rhetoric and creative protest strategies of movement activists. Open to all.

Cross-Listed as: AAAS 022
Distributive: Dist:SOC; WCult:CI

REL 62 - Religion, Politics, and the Presidency
Instructor: Balmer

This course examines the intricate relationship between church and state, religion and politics, throughout American history, beginning with the founders and how they have been interpreted—perhaps misinterpreted—throughout history. We'll look at the contentious election of 1800, examine the faith of several presidents, and then explore the rise and the influence of the Religious Right in recent years, concluding with a retrospective on religion and presidential politics over the past half century. Open to all.

Distributive: Dist:SOC; WCult:W

REL 63 - Mormonism
Instructor: Balmer

A survey of the history and theology of Mormonism, one of America’s indigenous religions. We’ll read selections from the Book of Mormon and chart the history of the movement, including its contentious relationship with the federal government. We’ll look, finally, at some of the cultural expressions of Mormonism and examine the ways that Mormonism has transformed itself from what was essentially an outlaw religion in the nineteenth century to the embodiment of American ideals. Open to all.

Distributive: Dist:TMV; WCult:W

REL 64 - Evangelicalism
Instructor: Balmer

A survey of the history and theology of evangelicalism, America’s folk religion, from its origins in the confluence of the “three P’s”—Puritanism, Presbyterianism, and Pietism—in the Great Awakening to the construction of the evangelical subculture following the Scopes Trial to the present. We’ll examine evangelical millennial ideas as well as attitudes toward women, minorities, society, and politics. Open to all.

Distributive: Dist:TMV; WCult:CI

REL 66 - Women, Religion, and Social Change in Africa
Instructor: Baum

This introductory, multidisciplinary course examines women's religions ideas, beliefs, concerns, actions, rituals and socio-cultural experiences in African societies and cultures from a comparative, historical and gender perspective. We will look at women's experiences of social change in African religions, the encounter with Islam, slavery, Christianity, and colonialism. We will analyze the articulations of economic and political power or lack of power in religious ideas as we ask questions such as: What are the different antecedents and circumstances in which women exercise or are denied agency, leadership, power and happiness in their communities? Texts will include nonfiction, fiction, and film narratives. Open to all students.

Cross-Listed as: AAAS 42 and WGSS 44.03
Distributive: Dist:SOC; WCult:CI

REL 67 - Religion And Imperialism
Instructor: Baum

An examination of the impact of imperial expansion on the religious systems of the conquered. The course will focus primarily on the religious consequences of European expansion in North America and Africa but will also examine Jewish responses to Roman imperialism at the time of Jesus. We shall examine the attempts of traditional religious leaders to explain and control the imperial presence as well as the development of new religious movements that grew out of spiritual crises of conquest. This course will examine various types of prophetic movements and revitalization movements that developed in response to conquest as people sought to preserve their cultural identities in the face of their forced integration into imperial systems. Issues of conversion to religions associated with the conquerors as well as the challenges of secular culture will be discussed. Open to all.

Cross-Listed as: ANTH 12.15
Distributive: Dist:INT or SOC; WCult:CI

REL 69 - Religion and World Politics
Instructor: Baum

Modernization theorists confidently predicted that religion would cease to be a matter of public concern and would become limited to individual and private spheres by the
end of the twentieth century. The Iranian Revolution put an end to such speculation. This course examines the relationship between religious pluralism and political affairs in European, African, and Asian nations. Case studies will include Northern Ireland, Nigeria, South Africa, the Middle East, and India.

Cross-Listed as: GOVT 20.07
Distributive: TMV

REL 70 - Foreign Study in Religion I
Instructor: University of Edinburgh staff
Credit for this course is awarded to students who have successfully completed a religion course at the University of Edinburgh while a member of the Dartmouth Foreign Study Program in Religion.
Prerequisite: One course in Religion.
Distributive: TMV

REL 71 - Foreign Study in Religion II
Instructor: University of Edinburgh staff
Credit for this course is awarded to students who have successfully completed a religion course at the University of Edinburgh while a member of the Dartmouth Foreign Study Program in Religion.
Prerequisite: One course in Religion.
Distributive: TMV

REL 74 - Special Topics in Religion-Intermediate Level
Instructor: The staff
The contents of this course will vary from term to term. Dartmouth Foreign Study Program (D.F.S.P.) courses are taught by the Dartmouth Faculty Director of the annual Religion Department Foreign Study Program at the University of Edinburgh, Scotland. See Off Campus Programs for applications and more information.
Distributive: Dist:TMV

REL 74.07 - Ritual in Post-Modern Great Britain
This is a course on ritual. It is designed to expose you to the major theories that seek to define, explain and interpret ritual and to apply those theories to actual rituals in situ. This means we will be reading and discussing intensively in seminar. We will also be taking advantage of the rich multicultural environment of this exciting city to attend various rituals—religious and otherwise. Your papers and presentations will be observations and analyses of two rituals from among the multitude of religious rituals available in Edinburgh and the United Kingdom.
Distributive: TMV

REL 74.09 - Religious Minorities in Britain
This course examines the history of minority religions in Britain from late Antiquity to the present-day. We examine the experience of minority status of adherents of indigenous religions of Britain, Jews, Muslims, Hindus, and followers of African and African Diaspora Religions. This is an inter-disciplinary course, utilizing historical, comparative, sociological, and literary perspectives to shed light on the ways in which these minority traditions interacted with the majoritarian Christian churches and were influenced by their minority experience.
Distributive: TMV

REL 74.11 - The English Bible
In this course, we will study first the earliest Bibles produced in southern Scotland and northern England, focusing in depth on the most beautiful and most important: the Lindisfarne Gospels, the Codex Amiatinus, and the Book of Kells. Second, we will study the history of the rendering of these and other early Latin Bibles into English, culminating with the famous King James Version, commissioned in 1611 by King James VI of Scotland/James I of England. While on the Religion Foreign Study Program (FSP) at the University of Edinburgh, the course will include fields trips to the island of Iona, the Holy Isle of Lindisfarne, Melrose Abbey, Durham Cathedral, and Edinburgh and Stirling Castles are integrated into our study.
Distributive: Dist:TMV

REL 74.12 - Merchant of Venice: The Jew in the Protestant Imagination
This seminar is an interdisciplinary study of Shakespeare's *The Merchant of Venice* that will examine the history of Christianity’s attitudes toward Judaism, the fate of Jews within Christian Europe, especially in England prior to the expulsion of the Jews in 1290, and the effect of these histories on the composition of the play, the representations of its main characters, particularly Shylock and Portia, and its reception through the centuries, with attention to its role in modern attitudes toward Jews and toward anti-Semitism. We will approach the material as scholars of history, literature, and religion. We expect to attend closely to the gendered and racialized representations of Jewishness and Christianess in the play and in English culture more generally. The impact of the play will be examined with particular reference to modern German and English literary traditions. We will also examine some major developments in the staging of the play, with particular attention to Yiddish versions, Israeli productions, and Nazi-era German stagings, as well as several film versions. A selection from the major critical literature on the play will be studied.
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Cross-Listed as: ENGL 55.15 JWST 070
Distributive: Dist:LIT; WCult:W

REL 74.15 - African Religions, Health, and Healing Traditions
This seminar examines the complex interaction of African, Christian, Muslim, and Western medical traditions in the understanding of, diagnosis of, and healing of illnesses within African societies. This is a capstone course for the AAAS major and minor and will include a major term paper. Cases will be drawn from anthropological, comparative religious, historical, literary, and artistic perspectives.
Cross-Listed as: AAAS 91.03
Distributive: Dist:INT or TMV; WCult:NW

REL 74.17 - Islam in Africa
Instructor: Baum
This course aims to introduce students to the formation of Islam in the Maghrib, Saharan Africa, and Africa south of the desert. Assignments will address continuities with and differences from the practices of Muslims in other parts of the world while emphasizing the central role the religion has played in the unfolding of history in various parts of Africa. Topics covered will include conversion, popular religion and mysticism, cultural formations, and social organization. Open to all classes.
Cross-Listed as: HIST 69 AAAS 53
Distributive: Dist:SOC; WCult:CI

Advanced Courses

REL 80 - Seminars
Instructor: The staff
The contents of this course will vary from term to term, see individual topic descriptions.
Distributive: TMV

REL 80.01 - Prophetism in the Black World
This seminar utilizes interdisciplinary perspectives to examine the relatively widespread phenomena of prophetism in the black world. By utilizing historical, anthropological, and comparative religious perspectives, the seminar will explore the lives and prophetic careers of people who claimed direct revelation from the supreme being or lesser spirits in indigenous African religions, Islam, and African and African American Christianity. We will examine such movements before the European occupation of most of Africa as well as the colonial and post-colonial eras. We will also examine African American movements from the period of slavery and from the twentieth century. Topics will include women's prophetic movements, religious critiques of underdevelopment, the process of inculturation of Islam and Christianity, and the role of religion in Resistance to foreign or domestic domination.
Cross-Listed as: Identical to AAAS 90.02
Distributive: Dist:TMV; WCult:CI

REL 80.04 - Sacred Time
What is time? Was there a beginning to the world? When did the world begin? Will it end? How will it end? Can we control time? Does anything exist beyond life and death? All cultures have struggled with these perennial questions, and we continue to do so today. Religious traditions have offered us many different answers to these questions. This course examines various understandings of time in several religious cultures: Judaism, Christianity, Buddhism, and Daoism.
Distributive: Dist:TMV; WCult:NW

REL 80.06 - The Creation of "Buddhism"
This seminar will focus on "Buddhism" not as a living religious tradition, but as an academic object—created, solidified, and defined by and within the Western academy. How was "Buddhism" created in the libraries and academies of the West, and how does this creation continue to define what "Buddhism" is today—both within the Western academy and among Asian Buddhists themselves?
Distributive: Dist:TMV; WCult:NW

REL 80.08 - Maimonides
"The modern Enlightenment postulated that "All men were created equal," at least in the sense that an essential part of being human was being a moral agent, capable of rational choice, and, thus, equally worthy of respect. No serious medieval thinkers would have found that credible. Their moral and intellectual ideals were thoroughly elitist. Nevertheless, some of them were committed to progressive political ideals, which constitute the Enlightenment toward which they worked, often at considerable personal risk. Maimonides' work epitomizes this type of Enlightenment, both in its arguments and in the style of its esotericism. The seminar will strive to achieve a synoptic view of this classic of Western religious-political thought."
Distributive: TMV

REL 80.09 - Bible, Sex, and Sexuality
In our society, when controversial issues about sex and sexuality arise (e.g., the nature of marriage; homosexuality), participants in the debate often refer to the Bible and claim it mandates certain points of view. But the Bible's position is not necessarily so clear-cut. This course will take a close look at representative biblical texts and relevant scholarly literature in order to examine the Bible's
complex perspectives on topics such as marriage, homosexuality, adultery, prostitution, incest, and celibacy.

Cross-Listed as: JWST 075

Distributive: Dist:TMV

**REL 80.10 - Messengers of God: Prophetism in Historical and Comparative Perspective**

*Instructor: Baum*

Using Western concepts of “prophets” and “messengers of God”, we will examine this religious role cross-culturally, using examples from ancient, Hebrew, Muslim, African, Native American, and Chinese cultures, including both male and female prophetic leaders. Using comparative and historical approaches, we will interrogate the meanings of the terms, as well as study the historical conditions that facilitate their emergence, success, and/or failures. We will examine the nature of prophetic experience, teaching strategies, and organizational roles in various religious movements. We will also use a variety of sources ranging from sacred scriptures, to biographies and histories, to literary representations.

Distributive: Dist:TMV

**REL 80.11 - Modern Black Spiritualities**

This advanced seminar places contemporary black religions at the center of the study of African-descended peoples. Through recent books in the ethnography of Africana religions, spiritual communities in Africa, the Caribbean, and North America that have established communities in the United States will constitute the focus of our course readings and anchor our weekly discussions. As an advanced seminar, our meetings will allow participants to interrogate the authors of these ethnographies. We will assess how these accounts have conceptualized the African diaspora and the vantages (“insiders” and “outsiders”) from which they describe religious beliefs, practices, and institutions. Beyond considering the commonalities and distinctions in form and practice that characterize various African diasporic religious practices, participants will also work to understand the constructions of race and belonging, ethnic identity, gender, sexuality, class, and geographic location that affect the lives of black religious adherents.

Cross-Listed as: AAS 90.10

Distributive: Dist:INT or TMV; WCult:CI

**REL 81 - Dickinson Distinguished Scholar Seminar**

The contents of this course will vary from term to term. This course is a unique opportunity for students to focus on the work of a distinguished scholar who has made a significant impact upon the study of religion. The Religion faculty designs the course annually and invites the scholar to visit the Dartmouth campus to engage the students, critique their papers, and present a public lecture to the community.

Distributive: TMV

**REL 81.04 - Buddho-Daoism: Religious Competition and Interaction in Traditional China**

Buddhism and Daoism developed together in traditional China through complex interactions that produced various difficult to define religious phenomena. Daoists and Buddhists appropriated each other’s ideas and practices so that many scriptures and rituals are sometimes nearly impossible to differentiate. Local religious communities followed practices that integrated ideas from both traditions. This course examines the various manifestations of Buddho-Daoist religious traditions in traditional China and their impact on modern Chinese religion.

Distributive: TMV

**REL 82 - Joint Research in Religious Studies**

Two or more students may enroll in this course to pursue through independent reading and research a topic mutually agreed upon between themselves and the instructor. This course may be used in satisfaction of the seminar requirement. Permission of the Chair is required.

**REL 83 - Independent Study in Religion**

The purpose of REL 83 is to provide opportunity for a student to do independent work on a topic that the student has studied in a regularly offered course, or to study a topic not normally covered in a regularly offered course. The interested candidate should, in consultation with a faculty adviser, decide on a course of study, reading, and writing and should then present these proposals in a petition for Departmental approval before the beginning of the term in which the course is to be taken. May be taken for more than one course credit, but at most, one election will count toward satisfaction of the requirements of the major. REL 83 can not be used to satisfy the culminating experience requirement.

**REL 84 - Advanced Independent Study in Religion**

Open only to senior majors in Religion; by permission only. The interested candidate should, in consultation with a faculty adviser, decide on a course of study, reading, and writing that will culminate in a 25-page essay, and should then present these proposals in a petition for Departmental approval no later than the end of the Spring term of the Junior year. REL 84 may satisfy the culminating experience requirement only in unusual and extenuating circumstances — and then only by petition to the Chair.

**REL 85.01 - Senior Colloquium**

*Instructor: MacEvitt*

As a culminating activity for all senior Religion majors, this colloquium serves as a forum for researching and
writing the Senior Essay. Two faculty members convene the colloquium and guide the selection of essay topics. Other faculty and guest speakers may visit during the first five weeks of the term for discussion of common readings. The 25-page Senior Essay is expected (1) to display expertise in at least one cultural area, historical period, methodological approach, or body of literature, (2) to build upon previous course preparation, and (3) to engage with one of several approaches or readings discussed in the colloquium.

Distributive: TMV

**REL 85.02 - Senior Colloquium for Honors Program**

Instructor: MacEvitt

As the culminating activity for senior Religion majors electing to write an Honors Thesis, this colloquium is one term of the two-term Honors Program requirement. REL 85.02 may be taken either before or after REL 87. See also the description for the Religion Honors Program.

Distributive: TMV

**REL 87 - Honors**

Open to senior majors only; by permission only. In order to qualify for the Honors Program in the Religion Department, the student must have at the time of application an average of 3.0 in all subjects and 3.3 in the major. The interested student should, in consultation with a faculty adviser, decide on a course of study, reading, and writing and should then present these proposals in a petition for Departmental approval no later than the end of the Spring term of the Junior year. During two terms of the senior year, the honors student will pursue the project under the guidance of a faculty adviser by enrolling in REL 85.02 (Culminating Experience) and REL 87 (Honors). The student is expected to produce a substantial thesis as the culmination of the project. REL 87 may be taken either before or after REL 85.02. See also the Requirements for the Major, Honors Program, in the ORC.

Students are awarded one course credit for successful completion of this course at the end of the second term of work. Students register for REL-087 and receive a grade of “ON” (ongoing) at the end of the term. Students do not register for the subsequent term. A final grade will replace the “ON” at the end of the subsequent term at which time the coursework must be completed.

**Russian Language and Literature**

Chair: Victoria Somoff

Associate Professors: M. Gronas, V. Somoff; L. Patyk, S. Finkel; Assistant Professor A. Morse; Research Assistant Professor and Language Program Director A. Rakova, Visiting Lecturers: V. Apresyan, Professors Emeriti: B. Scherr, D. Garretson.

To view Russian Language and Literature courses, click here (p. 644).

**Majors**

The major in Russian is designed to provide students with a solid working capability in the language as well as a familiarity with the literature and, more broadly, the culture of Russia. In addition, every major, in consultation with an advisor, will choose a set of electives that will result in a concentration on one of these three areas: language, culture, or literature. Alternatively, those wishing to take courses related to Russia in such disciplines as History, Government, or Economics should consider the Russian Area Studies Major. Both majors require Russian 31, which can be omitted only by vote of the entire Department.

1. **The Major in Russian.**

Requirements: RUSS 29; one course in the sequence 41–42–43; RUSS 71; two courses in the 30s which must include RUSS 31; and one culture course (numbered 10 through 19). In addition, majors must take four additional courses, for a total of 10. Those concentrating on language would select at least some of these four courses from the forties; those focusing in culture would select additional courses in the teens; and those interested primarily in literature would design a major with an emphasis on courses in the thirties. Two courses from the LSA+ may be counted toward the major and counted as a culture course. The culminating experience requirement must be satisfied by completing RUSS 71 or RUSS 86. In addition, those writing an honors thesis will enroll in RUSS 87, and may also take RUSS 85 as part of their preparation for the thesis.

2. **The Major in Russian Area Studies.**

Prerequisite: RUSS 3.

Requirements: A total of ten courses, which must include RUSS 27, RUSS 28, and RUSS 31. Of the remaining seven courses, at least two must be within the Russian Department and one course must fulfill the culminating experience. The Area Studies Major will include courses both from within the Russian Department and from such departments as History, Government, Economics, and Music, that, together, provide a cogent study of one or more topics with a focus on the region. The major should be planned in consultation with an adviser and the courses outside the department need to be approved by the chair. For the culminating experience, students must write a thesis (RUSS 87), or, with the approval of the Department faculty, designate a course in the Russian Department or another department that will serve to satisfy the requirement.

**Minors**

1. **The Minor in Russian**
Prerequisite: RUSS 3, or permission of the chair.
Minor courses: a total of six courses including
a. RUSS 31.
b. one or two of the following courses: RUSS 10-19.
c. up to four other Russian courses numbered 23 or higher, for a total of six courses beyond the prerequisite.
d. Students may count two of the LSA+ courses toward the minor.

2. The Minor in Russian Area studies
Prerequisite: One of the following courses: RUSS 10, RUSS 13, RUSS 19, or RUSS 21.
Requirements: a total of six courses including RUSS 31; and five courses chosen from the following: RUSS 10, RUSS 11, RUSS 13, RUSS 14, RUSS 18, RUSS 19, RUSS 21, RUSS 22, RUSS 23, RUSS 32, RUSS 35, RUSS 36, RUSS 48, or RUSS 71 of which three should be numbered 32 and higher and exclusive of the course selected as a prerequisite. Not more than two LSA+ courses could be counted for fulfillment of the prerequisite and requirements. Up to two Russian area studies courses, including offerings in Economics, Government, History, and Music that deal with relevant topics, may be counted towards completion of this minor. Other courses used to satisfy this requirement must be approved in advance by the Chair of the Department.

Honors Program
Seniors who give evidence of outstanding ability and who wish to pursue serious research on an independent project are invited to apply for honors work. Students must satisfy the minimum College requirement and must also meet two departmental requirements. First, they must have a grade average of 3.3 for all courses taken within the major. Second, they must have received at least an A- in an advanced course that emphasizes research and analysis, such as RUSS 48 or 71.

Area studies majors may satisfy this second requirement with one of these courses, or, if the topic of the thesis is outside the area of language and literature, with a course from the academic area in which they intend to do research. Application is normally made by the third week of the fall term, with RUSS 85 taken in the fall and RUSS 87 in the winter. The thesis must be submitted no later than the third week of spring term. Further information is available from the department Chair.

Term Abroad
Dartmouth Advanced Language Study Program (FSP) in Moscow, St. Petersburg, and Irkutsk.
Prerequisite: RUSS 1, RUSS 2, RUSS 3, or the equivalent, with a grade of no lower than B- in RUSS 3.

It is recommended that students take one or more of the following courses: RUSS 10, RUSS 11, RUSS 13, RUSS 19, RUSS 31 or HIST 54.

The Dartmouth Russian FSP Program is conducted jointly with Government and the Irving Energy Institute at The Higher School of Economics in Moscow, St. Petersburg, and Irkutsk during the summer. Applications for the program are due in January for that summer. Those accepted for the program will sign up for Russian 21, 22, and 23. Successful completion of the FSP will serve in satisfaction of the Summer Residence Requirement (even when taken in the summer following the first year or third year).

RUSS - Russian Language and Literature Courses
To view Russian Language and Literature requirements, click here (p. 643).

RUSS 1 - Introductory Russian
Instructor: Apresjan, Morse
An introduction to Russian as a spoken and written language. None of these serves in partial satisfaction of the Distributive or World Culture Requirements.

RUSS 2 - Introductory Russian
Instructor: Rakova
An introduction to Russian as a spoken and written language. None of these serves in partial satisfaction of the Distributive or World Culture Requirements.

RUSS 3 - Introductory Russian
Instructor: Staff
An introduction to Russian as a spoken and written language. None of these serves in partial satisfaction of the Distributive or World Culture Requirements.

RUSS 7 - First-Year Seminar in Russian
Instructor: Staff

RUSS 10 - Introduction to Russian Civilization
Instructor: Patyk
An examination of Russia as a cultural, national, and historical entity part of and yet apart from both Europe and Asia. Russia is a continental power of vast proportions whose traditions, character, national myths, and forms of political organization often seem a mirror-image to those of the United States. After a brief survey of Russian history, the course will examine certain determinants of Russian culture, including Christianity, multinationalism, and the status of Russian civilization on the periphery of Europe. The course will then deal with the art, music, and
popular literature of Russia, and conclude by examining certain contemporary issues, including the complex coexistence of Russian and Soviet culture. Open to all classes.

Distributive: Dist:TMV; WCult:CI

RUSS 11 - Special Topics in Russian Culture

Courses offered regularly on special aspects of Russian Culture.

RUSS 11.03 - How the Hammer and Sickle Gave Way to McDonalds

We will explore a wide variety of domestic and foreign media including film, music, jokes, detective novels, and streaming online videos across the Soviet period and into the present time. Artistic disciplines during the Soviet period were firmly entrenched within cultural industries that featured union memberships, the means to control production, distribution, and exhibition. Nonetheless, what was popular throughout Russo-Soviet history did not always emanate from state guided channels. How do we account for what we perceive as “anomalies” in Russian popular culture: why did people listen to American jazz music under Stalin? Why were Bollywood films more popular than Soviet comedies? Why were Brazilian and Mexican telenovelas standard viewing in Soviet homes? How did the presence of foreign texts relate to the multi-ethnic makeup on the Soviet Union? How were founding mythologies of the nation encoded/rejected in domestic texts? While popular culture encompasses a multitude of media, special attention will be paid to trends in music and cinema, offering students a comprehensive, historical arc of each medium’s development in Russia. The course will seek to establish a working definition of what we actually mean by “Russian popular culture.” Firstly, how do we differentiate between categorizations of mass culture versus popular culture? Secondly, we will challenge the notion of national culture when referring to the terms “Russian” and “Soviet” culture throughout the semester. Each unit is organized around the construct of “svoi” (“ours”) vs. “chuzhoi” (“theirs”), offering the class a point of comparison for how domestically produced culture often rivaled official foreign imports and blackmarket, unofficial distributed products. We will also explore larger, universal questions that revolve around top-bottom and bottom-up models of how popular culture operates. What does popular culture mean in the capitalist market context, and how might that definition change under socialism?

Distributive: Dist:INT or SOC; WCult:W

RUSS 11.04 - Topics in Music History: Russian Music

The objective of this course is to give the student an overview of Russian music in order better to understand the cultural, religious, and political history of Russia’s past 1,000 years and to position the student’s ongoing mastery of this history within a larger context. Questions that emerge from this course will find echoes in current cultural, religious, and political issues, and students will be directed to explore these intersections in class discussions and coursework.

Cross-Listed as: MUS 40.05
Distributive: Dist:ART; WCult:W

RUSS 13 - Slavic Folklore: Vampires, Witches and Firebirds

Instructor: Apresjan

In this course, we will discuss a variety of genres from Russian folklore. As we move from the familiar genre of the riddle to the often mystifying beliefs and rituals of the ancient Slavs and then to the fairy tale, comfortably familiar from childhood, we will learn to not only recognize the richness and density of texts that may initially seem uncomplicated but also to discern the patterns and meanings behind the apparently exotic narratives and behaviors. By thoroughly studying one of the world's richest oral traditions, Slavic folk life and folklore, we will acquire the tools and techniques necessary for collecting, documenting, and interpreting folklore -- which is perhaps the most truly international of all arts. The course is based on materials in Russian and East European cultures, but also draws from other traditions. Open to all classes.

Distributive: Dist:INT or LIT; WCult:W

RUSS 14 - The Age of Brainwashing: A History of Russian and Eastern European Film

Instructor: Patyk

An interpretive history of Russian, Soviet, Post-Soviet and Central European film. Topics include: tsarist Russia and the psychological school of the silent film (Evgeny Bauer); the Revolution and the Golden Age of Soviet montage (Sergey Eisenstein and Dziga Vertov); Stalinism and film as an instrument of mind control and propaganda; late Soviet symbolist cinema (Andrey Tarkovsky); and contemporary Russian Film Noir. The course also touches upon Eastern/Central European film, including the Czech New Wave (surrealist animator Jan Svankmeyer) and the "post-Yugoslavian wave" (Emir Kusturica and Dusan Makoveev). In addition to regular weekly screenings, all films will be made available online in an experimental format: divided into separate short clips that will be used in class for in-depth analysis and close cinematic readings. The final project (done in groups) will be creative: you will make a video-parody or video-stylization of one of the studied films. Open to all classes.

Distributive: Dist:INT or LIT; WCult:W

RUSS 15 - Russia and the West: From Early Times to Present Day

Instructor: Finkel
In its thousand-year history, Russia has occupied a unique place between Europe and Asia, and both Russian and foreign observers have wrestled with defining its place vis-à-vis western (European) civilization. This course will explore Russia’s place in world history, examining the complex and evolving relationship of Russia and Europe, and the Soviet Union and the West, from the middle ages to the present. Particular emphasis will be given to the complex relationship of Putin’s Russia with the United States today.

Distributive: Dist:INT or SOC; WCult:W

RUSS 17 - Russian Fairy Tales
Instructor: Somoff

In this course we will investigate the reasons why fairy tales are such enduring and powerful forces in our lives. Our special focus will be the incredibly rich body of traditional Russian folk and fairytales as well as their modern adaptations in the visual arts, music, literature, theater, and film.

Distributive: Dist:LIT; WCult:W

RUSS 18 - Russian Theater
Instructor: Somoff

This course is devoted to Russian drama and theater from the 19th through the 21st century. We will read eight plays that are central to the Russian literary and theatrical tradition and then discuss their most significant interpretations on both the Russian and the world stage. The meetings will be conducted in a non-traditional format. In our examination of the plays, we will attempt to model the process of stage production in accordance with the principles developed by Konstantin Stanislavsky—a celebrated Russian director whose approach to theater transformed acting in Russia and beyond. The course will culminate in the production of a play by a Russian playwright which students themselves will cast, direct, and design. All readings are in English.

Cross-Listed as: THEA 18

Distributive: Dist:LIT; WCult:W

RUSS 19 - Understanding the Russians: The Role of Language and Culture in Communication
Instructor: Gronas

With the arrival of the new millennium and its promise of global communications networks, we are becoming more and more aware of our world as a 'global village' and of the implications this has, both linguistic and cultural, for communication across national and ethnic boundaries. This course will examine those areas in the study of culture and of language pragmatics with relevance to such communication between American and Russians. Readings and class discussions will focus on such phenomena as 'culture' and 'language' shock; the linguistics and cultural evidence for differences in the two countries' views of such phenomena as time and space, as well as for such concepts as public and private 'spheres,' friendship, or of what constitutes a conversation. A variety of sources from literary works, TV documentaries and film, to travel handbooks and the conduct of negotiations will be examined for the cultural and language script they subsume in the two countries. Open to all classes.

Distributive: Dist:INT or SOC; WCult:W

RUSS 21 - Russian Civilization: Study Abroad
Instructor: Gronas

This course, taught by the faculty member directing the Moscow program, introduces students to aspects of contemporary Russian culture through a variety of media, including literature and journalism, film, television, and art. The topic will vary from year to year, depending on the specialty of the faculty member. Credit for this course is awarded to students who have successfully completed the Dartmouth Foreign Study Program in Russia.

Prerequisite: membership in the L.S.A. Program.

Distributive: Dist:INT or SOC; WCult:W

RUSS 22 - The Russian Language: Study Abroad
Instructor: Gronas

The second course in the Russian Moscow program, credit for this course is awarded to students who have successfully completed the Dartmouth Foreign Study Program in Russia.

Prerequisite: membership in the Foreign Study Program.

Distributive: WCult:W

RUSS 23 - The Russian Language: Study Abroad
Instructor: Gronas

This course represents the work done in the phonetics classes and in the conversation classes at the Higher School of Economics in Moscow. Credit for this course is awarded to students who have successfully completed the Dartmouth Foreign Study Program in Russia.

Prerequisite: membership in the L.S.A. Program.

Distributive: WCult:W

RUSS 27 - Intermediate Russian I
Instructor: Rakova

A continuation of the 1-2-3 cycle, this course is the first of the intermediate language courses offered by the Department. The course prepares the student for further upper-level study of the language. It includes intensive review, introduction to new grammatical topics, as well as reading, composition and conversation.
I. MAJORS AND THE MINOR OPEN TO THE CLASSES OF 2023 AND EARLIER

Prerequisite: RUSS 3 or permission

**RUSS 28 - Intermediate Russian II**
Instructor: Rakova
The sequence RUSS28 and RUSS29 completes the cycles of second-year Russian. Special emphasis is placed on such difficult areas as participles, aspects and verbs of motion. The course includes extensive reading, video work and vocabulary building.
Prerequisite: RUSS 27 or permission

**RUSS 29 - Intermediate Russian III**
Instructor: Rakova
The sequence RUSS 28 and RUSS 29 completes the cycles of second-year Russian. Special emphasis is placed on such difficult areas as participles, aspects and verbs of motion. The course includes extensive reading, video work and vocabulary building.
Prerequisite: RUSS 28 or permission

**RUSS 31 - The World as Word: 19th Century Russian Fiction**
Instructor: Somoff
In his *Philosophical Letters*, Pyotr Chaadaev, a 19th century Russian intellectual, compared Russian history to the history of Western civilization. Chaadaev proclaimed that Russia had been cut off from the global community, belonged to no cultural system, and contributed nothing to the progress of the human spirit. Since then, Russian writers and thinkers have wrestled with Chaadaev’s categorical verdict. One response from the 20th century poet Osip Mandelstam pointed out that Chaadaev had overlooked one singular contribution: the Russian language. “Such a highly organized, such an organic language is not merely a door into history, it is history itself.” Taking Mandelstam’s point to its logical conclusion, it is Russia’s literature that becomes the Rosetta stone to the exceptional nature of the Russian experience. In this course, we will explore some of the texts that make up this Rosetta stone. While reading some of the most celebrated works from 19th century Russian fiction – texts by Pushkin, Lermontov, Gogol, Turgenev, Goncharov, Dostoevsky, Tolstoy, and Chekhov – we will attempt to account for the distinct character of Russian literature and its unique role in Russian history and culture.
Distributive: Dist:LIT; WCult:W

**RUSS 32 - Reading Red: 20th Century Russian Fiction**
Instructor: Somoff
This course examines the major works of 20th century Russian literature. During that century, the people of Russia experienced a series of cataclysmic events including two World Wars; the overthrow of the 300-year-old Romanov dynasty and the triumph of the Bolshevik revolution; a Civil War; the mass trauma of collectivization; the Great Terror of Stalinism; and the collapse of the Soviet Union. As we read and discuss novels, stories, poems, and plays written by the Russian writers of that time, we will consider the correlations and tensions between the Russian sociohistorical reality and artistic expression. In addition to readings from literary and historical sources, we will watch films created by some of the most celebrated Russian filmmakers as well as the recent controversial documentary *The Soviet Story* produced by Latvian director Edvins Snore.
Distributive: Dist:LIT; WCult:W

**RUSS 33 - Reading Russia Today: Avant-Gardes, Dystopias and Dreamers**
Instructor: Morse
This course focuses on Russophone literature, film, art and culture in the new millennium (from the early 2000s to the present day), incorporating a crucial discussion of the late Soviet period and the 1990s. Beginning with the collapse of the USSR, cultural life in Russia has been characterized by ceaseless change, but also the reemergence of old patterns, tendencies and problems. Much contemporary Russian literature and art is caught up in complicated negotiations with the Soviet past and its social, cultural and political institutions, while also looking ahead to an uncertain future. We will read novels, short stories, plays and poetry, watch films and discuss visual and performance art with a view to topics ranging from gender and sex, activism and violence, family and national identity, internet communication and other language problems.
Distributive: Dist:LIT; WCult:W

**RUSS 35 - Dostoevsky and the Problem of Evil**
Instructor: Patyk
Dostoevsky laid bare the tragedy of human existence and probed the innermost recesses of the human psyche to show the terrifying isolation of a human being separated from God. Revolted by a world in which innocent children suffer, Dostoevsky tested the meaning to be found in Christianity, personal responsibility and human solidarity. This course examines his major novels, with particular emphasis on the artistic expression of his philosophical views. Those views will be examined in the context of Russian intellectual and literary history. Readings include “Notes from Underground,” *Crime and Punishment*, *The Idiot*, *Demons,* and *The Brothers Karamazov.* Taught in English. Open to all classes.
Distributive: Dist:LIT; WCult:W
RUSS 36 - The Seer of the Flesh": Tolstoy's Art and Thought
Instructor: Gronas
From childhood to the end of his life, Tolstoy struggled to overcome his fear of death. As he himself put the problem, "Is there any meaning in my life which the inevitable death awaiting me does not destroy?" In his quest for bulwarks against that fear, he studied the great philosophers and he examined closely the value system of the peasants. He found temporary relief in war and in marriage, but the definitive solution always eluded him. The evolution of this theme, and the formal devices by which Tolstoy expressed it in his prose, will be traced in the major novels, War and Peace and Anna Karenina. The course will conclude with a brief examination of the prose that Tolstoy produced after his conversion. Taught in English. Open to all classes.
Distributive: Dist:LIT; WCult:W

RUSS 37 - Western Thought and the Russian Dialogic Imagination
This course is a study of the relationship between Western philosophy and Russian literature, specifically the many ways in which abstract philosophical ideas get ‘translated’ into literary works. Russia does not have world famous philosophers. We have Solovyev, Rozanov, and Berdyaev, but very few of our colleagues at philosophy departments in the United States would recognize them and fewer still would have anything to say about them. Yet, most Russian writers were avid readers of philosophy and are often considered philosophers in their own right.
Distributive: Dist:TMV; WCult:W

RUSS 38 - Special Topics in Russian Literature, Culture and Area Studies
Instructor: Staff
These courses focus on areas of Russian literature, culture, and society that are not covered by our core curriculum. They introduce students to the study of aspects of Eurasian culture and society, including contemporary media culture, Russian Orthodoxy, politics and society, and environmental studies through various media and forms of cultural representation (literature, film, digital media), as well as interdisciplinary approaches.

RUSS 38.09 - Creative Writing in Russian: Russian and Ukrainian Short Story
Instructor: Somoff
This class is conducted in the format of a workshop and provides learners and speakers of Russian with an opportunity to engage in creative writing in Russian. We will read selected Russian, Ukrainian (and other) literary texts and examine them from the perspective of a writer rather than a reader or a critic. We will also explore semantic, stylistic, and poetic resources of language through a variety of experimental assignments. Finally, each student will undertake their own creative writing project, which will center on a specific literary genre and a specific topic chosen as the cultural-historical focus for the course. For the Fall of 2017, this topic will be the 1960s-70s in Ukraine, which, at that time, was part of the Soviet Union. Each student will write one short story, set in 1960-70s Ukraine, and written from the perspective of an imaginary, yet historically grounded, narrator. The reading list for the course will include some of the best short stories written in the Russian and the Ukrainian languages as well as collateral texts and films of various genres devoted primarily to the 1960s-70s in Ukraine and the Soviet Union. These readings and viewings will serve as a reservoir of characters, situations, plots etc. which could inspire, or even serve as prototypes for the students’ own short stories.
Distributive: Dist:ART; WCult:W

RUSS 38.10 - Modern Conspiracy: The Russian and American Conspiracist Traditions
Instructor: Patyk
Conspiracy narrative has come to dominate our national and international political discourse like no other time in modern history. It is therefore essential that we understand the operation of conspiracy narrative, its psychological allure and political function, and its devastating social consequences. In this course, we will investigate two national conspiracist traditions, the American and the Russian, and the parallel rise and stunning convergence of Russian and American conspiracism in our current political moment. In order to do so, we will inquire into the historical origins, the form, function, and effectiveness of conspiracist narratives in these two traditions in the 20th and 21st centuries. Ultimately we will approach conspiracy theories as ways of knowing, of penetrating and ordering complex and opaque realities. They are also powerful
narrative weapons that imperil the shared truths on which cohesive societies are based. Our course texts include *The Master and Margarita* (Bulgakov), *The Crucible* (Miller), and *Libra* (DeLillo), *Ivan the Terrible Part II* (Eisenstein) *The Manchurian Candidate* (Frankenheimer) and *The Matrix* (The Wachowskis) as well as literary and cultural studies of conspiracist narrative and ideation.

Cross-Listed as: COLT 63.02
Distributive: Dist:INT or TMV; WCult:W

**RUSS 38.12 - History of Attention**

The course will trace a broad outline of the social and cultural history of human attention. We will begin by establishing a firm foundational understanding of attention as a neuroscientific and cognitive phenomenon. We will then proceed to attention in preliterate societies (hunter-gatherers’ attention, attentional strategies in oral literary genres, such as the epic narrative); modern forms of attention in literature, music, pictorial art, and film; attention in the context of religious and spiritual practices; and finally, the current state of attention, including the social and political implications of the generalized ‘attention deficit disorder’ induced by the media and the internet.

Cross-Listed as: COCO 028
Distributive: Dist:TMV

**RUSS 38.14 - Other Christs: Introduction to Eastern Christianity**

Every church preaches its own Jesus: this course is devoted to the ‘other Christs’ of the Eastern Christian traditions. Some celebrate the liturgy in the language of Jesus, others in the language of the pharaohs, and their communities are spread across Egypt, the Middle East, Russia, the Caucasus, India and beyond. This course explores the rich, multicultural history of Christian communities whose origins reach back to early Christianity, and the challenges they face today.

Cross-Listed as: REL 15.01
Distributive: Dist:TMV

**RUSS 38.15 - Homelands and Diasporas: Russian Jews on Three Continents**

Drawing on a variety of disciplines, such as anthropology, history, sociology, political science, and cultural studies, and sources ranging from academic works to works of fiction and films, the course first explores the history and culture of Russian (pre-1917) and especially Soviet Jews (1917-1991)—a major and significant segment of the world Jewry—prior to the massive immigration of the 1970s-1990s. The rest of the course involves a comparison of the experience of Russian-speaking Jews in the three major countries they have immigrated to—Israel, US, and Germany—as well as those remaining in Russia today.

Cross-Listed as: DIST:INT or SOC; WCult:CI

**RUSS 38.16 - Putin's Sacred Reign**

In 2020, a cathedral was built in Moscow that scandalized many Russians. For on its walls were mosaics of Joseph Stalin and Vladimir Putin, who were pictured receiving blessings from the Virgin Mary. Thirty years ago, it was unthinkable that Stalin, a man who murdered millions of Christians, would someday be depicted alongside the saints. How could the public memory of the twentieth century be reconstructed so dramatically, so quickly? In this interdisciplinary course, we shall learn that Russia is a country with an unpredictable past: one that is currently being exploited in order to sacralize the reign of Vladimir Putin.

Cross-Listed as: REL 19.36
Distributive: Dist:TMV

**RUSS 41 - Advanced Conversation and Composition**

Instructor: Rakova

The language-learning goal of the course is to expand the students’ vocabulary, work with new vocabulary and idioms, to review and reinforce certain grammatical and stylistic subtleties. Students will be introduced to Russian cultural traditions and some specifically Russian attitudes in an exploration of problems of cross-cultural communication and miscommunication. There will be films, short stories, and articles for discussion.

Prerequisite: RUSS 29 or higher

**RUSS 42 - Advanced Russian through History, Press and Film**

Instructor: Rakova

Advanced Russian through the study of the Russian society and a brief synopsis of Russian history. Students will continue to develop their spoken, written, and reading proficiency in the Russian language. There will be stories and articles for discussion, one film, and grammar exercises.

**RUSS 45 - Special Topics in Russian Language**

History of the Russian Language. This course introduces the student to the history of the phonology (sound development) and morphology (development of grammatical categories) of Russian as a Slavic and Indo-European language.

Prerequisite: RUSS 29 or higher

**RUSS 48 - Structure of Modern Russian**

This course will introduce the student to the necessary methodology for analyzing the linguistic structure of Russian, and will examine the theoretical foundations of such analysis. The course will focus on the structure of the
noun, pronoun, and verb, as well as on various aspects of Russian word formation.

Prerequisite: RUSS 29

**RUSS 50 - Special Topics in Russian History**

Instructor: Staff

Students will work with primary and secondary sources to examine periods of Russian, Soviet and Eurasian history. Each course will focus on a particular time period or theme.

**RUSS 50.02 - The Russian Revolution**

Instructor: Finkel

The Russian Revolution of 1917 and the Bolshevik seizure of power proved to be among the most important events of the 20th century, and they had profound implications for world history up until the current day. In this course, students will examine the causes and consequences of these momentous occurrences and grapple with a set of complex and intricate historical questions that still divide historians. We will begin by examining how in the late 19th century far-reaching social changes & external challenges confronted the 300 year-old Romanov dynasty, and how, ultimately, this dynasty was unable to adapt to the modern era. Students will learn about the multifarious political movements that emerged in opposition to the old regime, and about the so-called Revolution of 1905, which shook but did not overthrow the tsar.

Cross-Listed as: HIST 055

Distributive: Dist:SOC; WCult:W

**RUSS 71 - Advanced Seminar in Russian Culture**

Instructor: Somoff

In this seminar, advanced learners and native speakers of Russian have an opportunity to read in the original and to study in depth works that are central to Russian intellectual history and literary tradition. Topics vary from year to year and may concentrate either on individual authors (Pushkin, Chekhov, Gogol), or a period (Middle Ages, The Silver Age, the Post-Soviet era), or a phenomenon (Russian Humor, Popular Culture, Utopianism). The course is conducted in Russian.

Prerequisite: At least one course in the 40s; students who have equivalent preparation may enroll with permission of the instructor.

Distributive: Dist:LIT; WCult:W

**RUSS 85 - Independent Reading**

Instructor: Somoff

Russian 85 is available to students in the Honors Program who intend to do preparatory work for a thesis or to students who wish to study a topic not normally covered in a regularly offered course. In the latter case it is necessary to prepare a one-page proposal describing what the student plans to study and to accomplish during the term. The proposal must then be approved by the faculty member who has agreed to direct the course and by the Department as a whole. Final approval must be received before the beginning of the term in which the course is to be taken.

**RUSS 86 - Independent Reading and Research in Russian**

Instructor: Somoff

Independent reading and research.

**RUSS 87 - Thesis**

Instructor: Somoff

A program of individual research designed for honors students. Interested students should consult the Chair of the Department.

### Science and Technology Studies


Science and Technology Studies (STS) provides a curricular and extracurricular focus for students and faculty seeking to examine the historical, philosophical, and social traditions that have shaped the construction of science and technology, and the effects of science and technology on other intellectual, social, and political activities.

STS is not a department or a program, and does not offer a major. Rather, it identifies a core of Dartmouth faculty (Arts and Sciences, plus the professional schools) interested in the history, philosophy, or social relations of science and technology, and the interdisciplinary courses they offer in these areas. The faculty may also arrange extracurricular activities related to the content of these courses.

### COURSE OFFERINGS

#### Social Science

*To view Social Science courses, click here (p. 650).*

#### SSOC - Social Science Courses

*To view Social Science requirements, click here (p. 650).*
Sociology
Chair: Marc Dixon
Professors J. L. Campbell, M. D. Dixon, B. Harrington, K. J. Lively, M. Parsa; Associate Professors J. N. Houle, D. K. King, J. M. McCabe, E. C. Walton; Assistant Professors S. Kim, K. B. Rogers, G. Sharp; Visiting Professor H. Clark, L. Grinberg, A. Pasieka, K. Smith.

To view Sociology courses, click here (p. 653).

Requirements for the Standard Major
The standard major in Sociology consists of eleven courses to be selected as follows:
1. One introductory level course, either SOCY 1 or SOCY 2.
2. Two methods courses: SOCY 10 and SOCY 11. With approval of the Chair, a major may substitute one of the statistical analysis courses offered by the other social science departments or programs.
3. One theory course: SOCY 15, or SOCY 16.
4. Students must take four Lower Division courses (numbered 20-49), two Upper Division courses (numbered 50-80), and one culminating experience course (see 5. below). Students may substitute an Upper Division course for one of the Lower Division courses.
5. Standard majors must satisfy the culminating experience requirement by successfully completing any one of the following three options: Senior Independent Study Project (SOCY 90), The Sociological Imagination (SOCY 91) or Honors Thesis (SOCY 98 & SOCY 99). Brief descriptions of each option may be found under the course listings. Please consult the Department regarding specific procedures for each option.

Requirements for the Modified Major
The modified major in Sociology consists of thirteen courses to be selected as follows:
1. One introductory level course, either SOCY 1 or SOCY 2.
2. Two methods courses: SOCY 10 and SOCY 11. With approval of the Chair, a major may substitute one of the statistical analysis courses offered by the other social science departments or programs.
3. One theory course: SOCY 15, or SOCY 16.
4. Students must take three Lower Division courses (numbered 20-49), one Upper Division course (numbered 50-80), and one culminating experience course (see 5. below). Students may substitute an Upper Division course for one of the Lower Division courses.
5. Modified majors, must satisfy the culminating experience requirement by successfully completing any one of the following three options: Senior Independent Study Project, The Sociological Imagination or an Honors Thesis. Please consult the Department regarding specific procedures for each option.
6. Four related courses taken in one or more departments or programs.

Students establishing a modified major must submit a written statement of the proposed field or topic, plus a list of all courses to be taken for credit toward the modified major. Please see the form on the department website. The proposal should address the intellectual coherence of the proposed course of study. All modified majors must be approved by the Chair of the Sociology Department; and, when modified by a single department or program, by the chair of that department or program. Proposals for modified majors must be submitted to the department no later than the beginning of the third term prior to the student’s graduation (for example, the beginning of fall term senior year in most cases). Extensions may be granted on rare occasions with permission of the Sociology Department chair.

Requirements for the Basic Minor
The basic minor in Sociology consists of six courses, to be selected as follows:
1. One introductory level course, either SOCY 1 or SOCY 2.
2. One theory course, either SOCY 15 or SOCY 16.
3. Students must take three Lower Division courses (numbered 10 or 11, 20-49), one Upper Division course (numbered 50-80). Students may substitute an Upper Division course for one of the Lower Division courses.

Requirements for the Minor in Markets, Management and the Economy
The Minor in Markets, Management and the Economy consists of six courses, to be selected as follows:
1. One introductory level course, either SOCY 1 or SOCY 2.
2. One theory course, either SOCY 15 or SOCY 16.
3. One of the following: SOCY 26, SOCY 66 or SOCY 69

4. Two of the following courses from the Lower Division
   SOCY 21 Political Sociology
   SOCY 22 The Sociology of International Development
   SOCY 26 Capitalism, Prosperity and Crisis*
   SOCY 27 Organizations in Society
   SOCY 28 Health Care and Health Care Policy
   SOCY 29 Sociology of Work

5. One of the following courses from the Upper Division
   SOCY 50 Sociology of Law
   SOCY 53 Power, Politics and the State
   SOCY 66 Markets and Management*
   SOCY 67 The Political Power of Ideas
   SOCY 69 The Sociology of Globalization*
   SOCY 70 American Labor Relations
   SOCY 80 Independent Study (in Markets, Management
   and the Economy)

   One Upper Division course may be substituted for a Lower
   Division Course.

   * For the MME Minor, taking SOCY 26, SOCY 66 or
   SOCY 69 can be used towards either fulfilling requirement
   #3, OR requirement #4 or #5, but not both.

**Requirements for the Minor in Social Inequalities**

The Minor in Social Inequalities consists of six courses, to
be selected as follows:

1. One introductory course, either SOCY 1 or SOCY 2.
2. One theory course, either SOCY 15 or SOCY 16
3. Three of the following courses from the Lower
   Division
   SOCY 23 Social Movements
   SOCY 25 Democracy and Democratization in Developing
   Countries
   SOCY 26 Capitalism, Prosperity and Crisis
   SOCY 31 Youth and Society
   SOCY 32 The Social Meanings of Home
   SOCY 34 Health Disparities
   SOCY 38 Status and Power in Social Interaction
   SOCY 42 Racism in Asian America
   SOCY 45 Inequality and Social Justice
   SOCY 46 Constructing Black Womanhood
   SOCY 47 Race and Ethnicity in the U.S.
   SOCY 48 Immigration, Race and Ethnicity

4. One of the following courses from the Upper Division
   SOCY 50 Sociology of Law
   SOCY 55 Poverty and Public Policy in the US
   SOCY 56 Sociology of Gender (Cross-listed with WGSS
   34.04)
   SOCY 58 Education and Inequality
   SOCY 60 Dangerous Intersections: Race, Class and
   Gender
   SOCY 61 Gender (In)Equality (Cross-listed with WGSS
   33.05)
   SOCY 65 Social Psychology of Inequality
   SOCY 70 American Labor Relations
   SOCY 71 Race Matters (Cross-listed with AAAS 63)
   SOCY 80 Independent Study (in Social Inequalities)

   One Upper Division course may be substituted for a Lower
   Division Course.

   All minors must be approved by a departmental faculty
   member.

**Off-Campus Study**

**Off-Campus Program in Copenhagen**

Students in any social science major may apply to
participate in the Sociology Department’s off-campus
student exchange program, which is held during the Fall
term at the University of Copenhagen in Denmark. The
University of Copenhagen offers a variety of social science
courses taught in English by Copenhagen faculty. Students
may choose courses in sociology, anthropology,
government, psychology, and economics, and take the
normal course load of a full-time student. Applications are
received in early February and selections are made during
that term. Students who apply are required to have an
overall grade point average of at least 3.0. For further
information, see Professor Harrington.

**Sociology Honors**

The Honors Program in Sociology consists of advanced
independent study under the direction of a faculty
supervisor, culminating in the completion and presentation
to the department of an honors thesis. A major who
successfully completes an honors thesis in Sociology will
also satisfy the culminating experience in the major. The
program is open to any major who satisfies the minimum
college honors requirements, including a 3.0 GPA overall,
has a 3.3 GPA in the major, and has completed all theory
and methods requirements for the major prior to
submission of the thesis proposal.

Toward the end of the junior year a prospective honors
major should identify a faculty member in the department
who is willing to serve as a thesis advisor in order to
discuss the proposed thesis. Advisors must confirm that
they will be on campus during the two terms in which the
student takes SOCY 98 and SOCY 99 (sociology honors
credits) unless other arrangements are made. A written
thesis proposal must be submitted to the advisor no later
than the end of the third week of the third term prior to
graduation (typically fall term, senior year), and preferably
earlier. After the proposal has been approved by the
advisor and a copy filed with the department the student is
accepted into the honors program.
All honors majors must take SOCY 98 and SOCY 99 for thesis credit during the senior year, although exceptions may be permitted. SOCY 98 counts as one of the seven additional courses numbered 10 or higher that are required for completion of the major, taking SOCY 99 means that Honors students will typically take at least 12 course credits in Sociology. At the end of the SOCY 98 the student’s progress toward the completion of the thesis is evaluated by the advisor in consultation with the department. If satisfactory progress is not being made, then the thesis project may be terminated and a grade given for the first term of thesis credit.

A preliminary draft of the thesis must be turned into the thesis advisor no later than the end of the fifth week of SOCY 99, and preferably earlier. Once revisions have been made, two (2) copies of the completed thesis draft must be turned into the thesis advisor no later than the end of the eighth week of SOCY 99. Upon completion of the final revised thesis, the student must provide 3 bound copies to the department: one for the Advisor, one for the Department and one for the Rauner Library. The thesis will be graded by the thesis advisor and a second reader appointed by the department. Students receiving a B+ (3.33) or higher on the thesis will receive honors recognition in the major. High honors may be awarded by faculty vote for truly exceptional work.

Students interested in participating in the program should obtain the handout “The Sociology Honors Program” from the Department Office. Students can also consult the website: http://sociology.dartmouth.edu/undergraduate/honors-program.

Transfer Credits
Upon approval by the Chair, a maximum of two course credits for work taken elsewhere may be counted toward the major and a maximum of one course credit for work taken elsewhere may be counted toward the minor. Modified majors must complete at least five sociology courses at Dartmouth, beyond the prerequisite. Also, certain courses, such as SOCY 1, SOCY 2, SOCY 10, SOCY 11, SOCY 15 and SOCY 16 are almost always required to be taken at Dartmouth. Typically, transfer credit will only be approved for sociology courses not regularly offered by the Department. Students contemplating taking major, modified major and minor courses elsewhere should thus consult the Chair well in advance, to assure that appropriate transfer credits will be accepted.

SOCY 7 - First-Year Seminars in Sociology
Instructor: Houle (22W), Smith (21F, 22S), Sharp (21F, 22S)

SOCY 8 - Social Problems
Instructor: Houle (22W), Smith (21F, 22S)

SOCY 9 - Quantitative Analysis of Social Data
Instructor: Houle (22W), Smith (21F, 22S), Sharp (21F, 22S)

SOCY 10 - Quantitative Analysis of Social Data
Instructor: Houle (22W), Smith (21F, 22S), Sharp (21F, 22S)

This course provides an introduction to the methods and statistical techniques of quantitative analysis. The first part of the course deals with the methods of quantitative analysis (research design, conceptualization, operationalization, and measurement). The second part of the course introduces students to parametric and nonparametric statistics (frequency distributions, crosstabulations, measures of association, tests of significance, correlation, and bivariate regression). There is a strong emphasis in this course on applying the methods and techniques learned to actual social science data. No previous statistical or advanced mathematical training is assumed, but solid arithmetic and basic algebraic skills are necessary.
Because of the large overlap in material covered, no student may receive credit for more than one of the courses ECON 10, ENVS 10, GOVT 10, MATH 10, PSYC 10, QSS 15, and SOCY 10, except by special petition to the Committee on Instruction.

Distributive: Dist:QDS

**SOCY 11 - Research Methods**

Instructor: McCabe (22S, 23S), Rogers (22W, 22F)

This course is designed to provide students with the practical tools of doing social science research and the theoretical background for scientific inquiry into social issues. In the first part of the course we will discuss the research process itself, as well as conceptual issues in theory building and hypothesis testing. In the second part, students will devise and carry out group and individual research projects around a substantive topic. Each project will involve a variety of research techniques, the exact use and applicability of which will be the topic of class discussions. In addition, we will discuss ethical issues and the relevance of social science research for policy making and for advocacy.

Distributive: Dist:SOC

**SOCY 15 - Sociological Classics**

Instructor: Dixon

This course introduces and criticizes the work of Karl Marx, Emile Durkheim, and Max Weber, three seminal writers whose ideas are still of enormous significance in shaping perspective and framing terms of argument among many major contemporary social and political thinkers. Among specific subjects to be covered are the following: class and class conflict; culture and ideology; forms and symbols of social solidarity; and questions of how shared ideals or divisive interests affect not just the study of human society, but the course of history itself.

Prerequisite: SOCY 1 or SOCY 2, or permission of the instructor.

Distributive: Dist:TMV

**SOCY 20 - Sex, Death, and Migration – Or How We Learned to Stop Worrying and Love the (Population) Bomb**

Instructor: Sharp

The world’s population will more than double from 7 to 16 billion by 2100. In addition, some countries’ populations are booming whereas others face rapid decline. What does this mean for public policy, population health and aging, fertility and reproductive health, immigration and social inequality? To gain insight into these questions, social scientists study some of life’s most intimate moments – sex, illness and death, and moving from home to home. These components of population change (mortality, fertility, and migration) help us better understand the impact of population composition and change. In this class, we will first learn the basic tools that social scientists use to analyze broad population trends. We will then use these tools to gain insight into population patterns across the globe. At the end of the course, students will apply what they learned to the analysis of the population trends of a country of their choice, as well as compare and contrast population trends across different countries.

Distributive: Dist:INT or SOC

**SOCY 21 - Political Sociology**

Instructor: Dixon

This course examines the relationship between the social and political order with a view towards identifying and examining how politics is shaped by other events in societies and in turn shapes them. Readings and discussions will focus on the close connection between the political arena and its actors and social institutions. Attention is given to sociological aspects of the family, communities, economic institutions, and political parties. Special emphasis is placed on the dynamics of political power, participation, socialization, communication, and recruitment.

Distributive: Dist:SOC; WCult:W

**SOCY 22 - The Sociology of International Development**

Instructor: Parsa

This course will introduce students to the major sociological perspectives on economic and political development, with emphasis on developing countries. Among the views to be considered are modernization, which assumes that later developing countries will follow paths once traveled by today’s advanced countries; and dependency and world system theories, which view the integration of less developed countries into the world market as problematic and, under certain conditions, even
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disadvantageous. We will test these theories by applying them to specific cases. A major part of the course will focus on the economic ‘miracle’ of East Asian countries, as well as cases that have not been so successful. Other important topics to be studied include the influence of states, markets, and multinational corporations in economic development; the relationship between different modes of development and income distribution; and political development and the prospects for democratization. Open to all classes.

Cross-Listed as: MES 12.07

Distributive: Dist:INT

SOCY 23 - Social Movements

Instructor: Dixon

Social movements are collective attempts to promote or resist social change, from the way people live their lives, to how governments govern, to how economic systems distribute rewards. This course examines why and when social movements come about, the organizations and strategies they adopt, and the circumstances in which they are most impactful. We explore these issues by researching individual political movements and engaging larger theoretical explanations for their development.

Distributive: Dist:SOC; WCult:W

SOCY 25 - Democracy and Democratization in Developing Countries

Instructor: Parsa

The road to democratization in most countries in recent years has been marked by large-scale social movements. This course will begin with an examination of various theories of democracy and democratization. It will specifically analyze the role of class, culture, ideology, and religion in the democratization process. Finally, we will apply the theories to the three cases of South Korea, Indonesia, and Iran, three countries with mixed successes.

Distributive: Dist:INT or SOC; WCult:NW

SOCY 26 - Capitalism, Prosperity and Crisis

Instructor: Parsa

Capitalism in the last five centuries generated great wealth and prosperity in Western societies. In the last few decades, capitalism assumed a global character affecting social and economic life of the vast majority of the people in the world. Yet, capitalism has also been plagued by economic decline and failures, causing massive human suffering. This course will study the nature of capitalism, sources of prosperity and crisis, inequality in distribution of economic and political power.

Distributive: Dist:SOC; WCult:W

SOCY 27 - Organizations in Society

Instructor: Harrington

Much of modern life takes place within a wide variety of complex, formal organizations, from multinational corporations, to churches, from social service agencies to volunteer organizations. In this course we will learn about the structure, internal processes, and environments of different forms of organization. Our focus is on sociological theories and empirical research, from a macrosociological perspective. Our objective will be to learn about how organizations work, as well as to gain an understanding of the impact of organizations on society and in our lives.

Distributive: Dist:SOC; WCult:W

SOCY 28 - Health Care and Health Care Policy

Instructor: Parsa

This course examines the health care system in the United States, focusing on the roles and operations of health care institutions and providers. The objective throughout the course is to develop a comprehensive and critical perspective on current fields and issues in medical sociology. The course consists of five sections, progressing from macro-level to micro-level analyses of the delivery of health care, and returning to the macro-level to discuss recent policy changes and debates in the health care system.

Distributive: Dist:SOC; WCult:W

SOCY 29 - The Sociology of Work

Instructor: King

Students of society seem always to have been fascinated with explaining why some members deviate from commonly accepted rules. This course examines the major sociological explanations of deviance. We will explore the identification of certain behaviors as deviant, the process of becoming deviant, the management of a deviant identity, and the development of deviant subcultures. The course concludes with an examination of societal reactions to and the treatment of deviance and deviants. Examples of deviant and social control activities that may be considered include prostitution, religious cults, youth gangs, witchcraft, the handicapped, and asylums. Open to sophomores, juniors and seniors only.
SOCY 31 - Youth and Society
Instructor: McCabe

This course explores central features of children’s preschool, preadolescent, adolescent, and college peer cultures. We will discuss what it means to study youth from a sociological lens and research methods for doing so. Specific topics may include: historical views of childhood; how gender, socioeconomic class, race, ethnicity, and sexuality shape youth’s experiences; what it means to be “popular”; identity development; extended adolescence; the role of culture (through games, books, television, etc.) in youth’s lives.

SOCY 32 - The Social Meanings of Home
Instructor: King

This course is an exploration of the economic, cultural, social and political dynamics of "home" in contemporary U. S. society. The concept, "home" invariably invokes multiple and sometimes conflicting ideas—a physical dwelling, family, economic property, birthplace, nationality, environment, haven, etc. We speak of "home sweet home," "dream home," "home is where the heart is," "sweet home Alabama" "homeland," "there's no place like home," and "homies." In the course, we will consider the home as a social context that profoundly shapes our personal and collective identities, gender roles and interpersonal relationships, class status and divisions, racial-ethnic memberships and conflicts, plus values and political ideals. The course will emphasize the homestead as economic property and the implications of its location, design, artifacts and domestic lifestyles for the cultivation of model subjects, consumers or citizens. Theoretical, empirical and interpretative materials in the course may touch on subjects as varied as housing and home ownership, shopping and hyperconsumption, food and kitchen culture, family values and the modeling of marriage and family life, the home improvement industry, and home and self makeovers on reality television.

SOCY 33 - Self and Society
Instructor: Lively

Social Psychology is the study of the relationships between the individual and society. It is an interdisciplinary field to which the work of sociologists, psychologists, and occasionally scholars from other disciplines is relevant. This course introduces students to social psychology primarily, although not exclusively, from a sociological perspective. First, the course will acquaint students with the range of theoretical perspectives that have been used to study social psychology. Second, it will familiarize students with empirical research that has been done to examine these theories. Third, it will permit students to explore particular social psychological issues in greater depth both within and across particular perspectives within social psychology.

SOCY 34 - Health Disparities
Instructor: Walton

Social, economic, and political forces powerfully influence who gets sick, the types of diseases that affect them, the treatments that are available, and the outcomes of those treatments. In this course, we will study how discrimination, marriage, and social ties may contribute to gender, racial and ethnic, and socioeconomic health disparities. We will also examine the ways in which neighborhood and community context shape health and access to health care services.

SOCY 35 - Sociology of Mental Health
Instructor: Houle

Poor mental health and mental illness are often viewed as biological flaws. Sociologists, however, argue that mental illness is socially constructed, and that population mental health is profoundly shaped by social conditions. In this course, we will explore sociological understandings of mental health and illness. We will focus on a range of topics, including: the social construction of mental illness, how social inequality contributes to mental health, and how society responds to the mentally ill.

SOCY 36 - Sociology of Family
Instructor: Walton

The sociological study of the family involves our ability to take a step back to assess structures that pattern our personal experiences and how the private decisions that happen in families matter to society as a whole. We will examine how private affairs in family life interact with important public issues, particularly discussing intersections with gender, social class, race and ethnicity, marriage and cohabitation, divorce, remarriage and stepfamilies, childhood and adolescence, work, and social policy.
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SOCY 37 - Introduction to Public Health: An Individual, Community, and Population-Based Approach
This course will enhance Dartmouth undergraduates' knowledge of public health and foster skills and commitment to improving health, particularly the health of the Upper Valley Community. We will use experiential and collaborative community-based approaches to apply the principles of public health, determinants of health, behavior change, and systems improvement. We will promote a learning environment from which collaborative interventions can occur among Dartmouth undergraduates, graduate school professionals, faculty, physicians and community members, leaders, and organizations.
Distributive: Dist:SOC

SOCY 38 - Status and Power in Social Interaction
Instructor: Rogers
How do our interactions with others cause and result from inequalities in society? This course explores how status and power dynamics shape social life, using theories and research from sociological social psychology. We will learn how status beliefs emerge from social differences in resources and power, and how they perpetuate inequalities over time by shaping our interpretations of events and our behavior and emotions toward others. We will also consider how these inequalities can be overcome.
Distributive: Dist:SOC; WCult:CI

SOCY 42 - Racism in Asian America
Instructor: Walton
This course first considers the migration histories and racial experiences of Asian American groups in comparison to other groups. By highlighting the contexts of global and transnational migration, this course identifies the many ways in which Asian American groups have been both excluded and differentially included in politics and racial discourse—whether as colonial subjects, exploited labor, transnational immigrants, or diasporic groups. Next, the course considers a variety of contemporary experiences of Asian Americans, as they manifest in the media, food, gender, family, pop culture, transnational adoption, affirmative action, multiracial solidarities and more!
Distributive: Dist:SOC; WCult:CI

SOCY 43 - Crossing Over: Latino Roots and Transitions
Instructor: Gomez
This course focuses on the histories and experiences of Latinx transnational migrants—from Mexico, Central America, Puerto Rico, the Dominican Republic, and Cuba—living in the United States. You will study the historical, political, and economic processes that have led to these migrations, as well as the varying ways in which race/ethnicity, class, gender/sexuality, and citizenship affect Latinx migrant lived experience. Given our focus on “crossing,” readings will foreground subjects that capture this theme, from the literal movement of people, to the constant back and forth that shapes Latinx lives, to the adjustments Latinx people make given their language, their proximity to other immigrants and communities of color, and their varying acceptance within the United States.
Cross-Listed as: ANTH 12.19 LATS 044
Distributive: Dist:SOC; WCult:CI

SOCY 44 - Complexities of Latino Identity
Instructor: Gomez
The Latino population currently consists of approximately 40 million people in the United States; by the year 2050, the Census estimates that the Latino population will make up at least 25 percent of the total U.S. population. This diverse group traces its origins to a variety of countries. Their experiences and identities in the United States are quite varied. This introductory course examines the experiences of reception, settlement, and transnational lives of various Latino groups - Chicanos, Puerto Ricans, Cubans, Dominicans, Central and South Americans - in the United States. By using interdisciplinary research, this course explores issues of race, class, gender, migration, and representation of group politics.
Distributive: Dist:SOC; WCult:W

SOCY 45 - Inequality and Social Justice
Instructor: Dixon
Social stratification refers to the unequal distribution of socially valued resources such as wealth, prestige, and power, across different groups in society. This course examines sociological research on the extent of these inequalities, how they are generated, and the consequences they bear. With an emphasis on historical and contemporary patterns of inequality in the United States, specific topics may include: wealth and income inequality; poverty; the intersection of class, race/ethnicity, and gender; educational attainment; and social change.
Distributive: Dist:SOC

SOCY 46 - Constructing Black Womanhood
Instructor: King
This course is a critical examination of the historical and contemporary status of black women in the United States, as presented in fiction, primary accounts, and social science literature. We will explore the nature, extent, and consequences of the multiple discriminations of race, sex, and class, as the context in which these women shaped their social roles and identities within the black community and the larger society. We will consider the themes of
family, motherhood, and sexuality; educational, economic and political participation; aesthetics and religious traditions; self and social images.

Cross-Listed as: AAAS 025 WGSS 033
Distributive: Dist:SOC; WCult:CI

**SOCY 47 - Race and Ethnicity in the U.S.**
Instructor: Kim

To many eyes, racial distinctions are self-evident, natural, and objectively-defined. In this course, we problematize this practice of defining racial categories based on phenotypic differences, instead taking a sociological approach to understanding the ways in which racial differences are socially constructed. Throughout this course, we will explore how race matters by studying racial identity and experience, immigration and assimilation, diversity, and inequality.

Distributive: Dist:SOC; WCult:W

**SOCY 48 - Immigration, Race and Ethnicity**
Instructor: Kim (21F, 22F), Wright (22S)

This course examines twentieth-century immigration to the United States. This course pays special attention to issues of race and ethnicity. The course begins with a brief history of US immigration and then thematically covers specific topics such as economic impacts and costs, social mobility, citizenship, transnationalism, assimilation, and religious issues and their relationship to the immigrant experience. We feature nativist reactions to immigration and highlight differences within and between Latino, Asian, and European groups throughout the course.

Cross-Listed as: GEOG 028 LATS 040
Distributive: Dist:SOC; WCult:CI

**SOCY 49 - Lower Division Special Topics Courses**

**SOCY 49.02 - Theories of Democratization and the Case of Iran**
Instructor: Parsa

Theories of democratization generally examine the nature of the state, economy, social structure, class, culture and religion. This course will begin with an examination of various theories of democracy and democratization. It will then apply these theories to the specific case of Iran. Despite two major revolutions and two movements, Iran is still facing problems democratizing. The latter part of the course relies on documentary films that contain actual footages of Iran’s nationalist movement in the 1950s and the revolutionary struggles in 1979.

Distributive: Dist:SOC; WCult:NW

**SOCY 49.08 - Advertising and Consumer Culture**

This class introduces the scholarly analysis of consumer culture and encourages critical inquiry through thinking and writing about the key moral, political and practical questions concerning consumer culture. You should develop the ability to express and defend your own opinions of consumer culture as well as to question some of the cultural assumptions that many regard as natural or inevitable.

**SOCY 49.09 - Critical Political Economy**
Instructor: Grinberg

Political economy was formulated as a central field of research since the 19th century, designed to comprehend both fields - politics and economics - and how they interact, at the local, regional and global level. Since the 2008 financial crisis it became a very popular field of research, highlighting varied and opposed theoretical approaches. The course will focus on critical perspectives to political economy, including a. class conflict, race and ethnic relations and the world system; b. state institutions and their relation to civil society, capital and labor organizations; and c. late developments of the neoliberal economy, the social and economic implications of inequality, and global protests of the 99%.

Distributive: Dist:SOC

**SOCY 49.12 - Israeli Society—Structure, Institutions, Identities and Dynamics**
Instructor: Grinberg

The goal of this course is to study Israeli society from a sociological perspective. The course analyzes the economic, political and social factors that shaped Israeli society from its inception, its historical transformation at the structural and institutional levels, and in the changing relations among different social groups. This course examines the establishment of the state, absorption of immigrants, ethnicity, messianic politics, Palestinian uprisings, peace process, and redefinitions of nationalism.

Cross-Listed as: AMES 41.08 JWST 68.01 MES 12.11
Distributive: Dist:SOC; WCult:CI

**SOCY 49.13 - Science and Religion in American Media**

The public life of science and religion seems to be characterized by intractable conflict. In this course we examine case studies from current controversies over stem cell research, reproductive genetics, environmental policy, human origins, and sexuality. We will explore who is creating and maintaining these public controversies and why. We will examine “science and religion” as a defining confrontation in the development of American democracy, and consider how the American public sphere shapes possibilities for political participation.
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Distributive: Dist:SOC; WCult:W

**SOCY 49.15 - Sociology of the Israeli-Palestinian Conflict**

Instructor: Grinberg

The course aims to comprehend Israeli-Palestinian relations from the first moments of Zionist-Palestinian encounter. It presents different approaches to the interpretation of these relations, the beginning of the conflict before the establishment of the Jewish State, and its further developments. The course will enter key debates on military-society relations, Jewish democracy, economic relations, and the failure of the peace process, ending with a discussion of options for the future.

Cross-Listed as: AMES 41.09 JWST 68.02

Distributive: Dist:SOC

**SOCY 49.16 - Community: Analysis & Action**

This course will examine the idea of a safe, inclusive community and how it might be realized on a college campus. We will examine the tremendous changes that a society experiences as it moves from a social order based mainly on face-to-face interactions and obligations to one based on anonymous market forces, bureaucratic state power and virtual relationships. And we will look at how communities have endured despite these changes. We will look at the advantages and disadvantages of communities today, as well as the advantages and disadvantages of our longing for community. We will look at the practices that undermine community and the practices that support community. Finally, we will engage in action-oriented research projects concerned with community at Dartmouth.

Distributive: Dist:SOC

**SOCY 49.17 - Religion and Political Economy**

Instructor: Clark

What is religion’s role in the wealth and poverty of nations? Is there really a “Protestant ethic” and a “spirit of capitalism?” Or is human prosperity completely independent of religious belief, institutions, and “spirit”? How do Western and non-Western societies seeking their place in the modern world reconcile religious traditions with the demands of economic globalization? This course will explore a wide gamut of past and present perspectives on this important, controversial subject.

Distributive: Dist:SOC; WCult:W

**SOCY 49.18 - Third World Revolutions**

Instructor: Parsa

This course presents a comparative analysis of the three major revolutions of the latter part of the twentieth century: Iran, Nicaragua, and the Philippines. The course begins with a discussion of major theories of revolutions, including works that focus on class analysis, ideological conflicts, and the state. In the second half of the term, the course explores the revolutions in Iran, Nicaragua, and the Philippines, focusing on the causes of the conflicts, the revolutionary processes, and their alternative outcomes: Islamic fundamentalism in Iran, revolutionary socialism in Nicaragua, and the restoration of liberal democracy in the Philippines. The latter part of the course relies on documentary films that contain actual footages of the revolutionary struggles and their outcomes in the three countries.

Distributive: Dist:INT or SOC; WCult:NW

**SOCY 49.19 - Sport and Democratization in the Ancient and Modern Worlds**

Instructor: Christesen

The relationship between democratization in society and in sports forms the subject matter of this course. We will begin to explore that relationship by looking at the various ways in which democratization in society and in sports influence each other in the modern world. Then we will turn our attention to the past and examine the relationship between democratization in society and in sports in sixth- and fifth-century BCE Greece, in nineteenth-century CE Britain, and in twentieth-century CE America. The course will end with a consideration of the lessons we have learned about democratization in society and in sports for public policy in the United States and elsewhere.

Distributive: Dist:INT or SOC; WCult:W

**SOCY 49.21 - The Black Church and Black Bodies: Race, Sexuality and Class in Religious Culture**

Black churches are challenged to better understand and respond to subjects that are often considered taboo. This course will focus on ideas and approaches that have informed the historic and current Black Church around race, sexuality, and class (and their nexus). Informed by Cultural Theory, it will consider how such churches have endeavored to understand, socialize, and in some instances, control Black bodies as well as some of the broader implications for critically assessing inequality, diversity, and social justice. Barnes.

Distributive: Dist:TMV; WCult:CI

**SOCY 49.22 - Social Justice and the City**

Instructor: Gerlofs

This course explores issues of social justice and cities in terms of the spatial unevenness of money and power within and among cities, between cities and their hinterlands, and between cities of the world. We will examine how multiple dynamic geographic processes produce spatial and social inequalities that make cities the locus of numerous social justice issues. We will also look at how urban communities
and social groups are engaged in working for social change.

Cross-Listed as: GEOG 025 WGSS 37.03

Distributive: Dist:SOC; WCult:CI

**SOCY 49.23 - Critical Political Economy**

Instructor: Grinberg

Political economy was formulated as a central field of research since the 19th century, designed to comprehend both fields - politics and economics - and how they interact, at the local, regional and global level. Since the 2008 financial crisis it became a very popular field of research, highlighting varied and opposed theoretical approaches. The course will focus on critical perspectives to political economy, including a. class conflict, race and ethnic relations and the world system; b. state institutions and their relation to civil society, capital and labor organizations; and c. late developments of the neoliberal economy, the social and economic implications of inequality, and global protests of the 99%.

Distributive: Dist:SOC; WCult:W

**SOCY 49.24 - Sociology of Human Rights**

In 1948, the *Universal Declaration of Human Rights* called on the world’s nations to respect the “inherent dignity and…the equal inalienable rights” of all people. But while the declaration helped globalize human rights, the world continues to experience genocide, torture, slavery, discrimination, and the wide-scale displacement of people. The course seeks to gain a greater appreciation of the complex social forces that impede human rights while also imagining new strategies to address current-day human rights challenges. Students will critically examine human rights case law, develop a non-governmental organization, and participate in a simulation of the United Nations Security Council.

Distributive: Dist:INT or SOC; WCult:W

**SOCY 50 - Sociology of Law**

Instructor: King

This course will consider the relationship between law and society, analyzing law as an expression of cultural values, a reflection of social and political structure, and an instrument of social control and social change. Complimenting this general perspective will be a more detailed examination of selected legal institutions, such as the court system, the police, regulatory agencies, and the legal profession. Readings will include both theoretical works and empirical studies.

Prerequisite: SOCY 1 or SOCY 2, or permission of the instructor

Distributive: Dist:SOC; WCult:W

**SOCY 51 - Prisons: The American Way of Punishment**

Instructor: King

Prison as a place of confinement, punishment and rehabilitation is the focus of this survey of the history, philosophies, structure and operation of corrections in the United States. The course critically examines the concept of prison as a total institution and its panopticism as a model of social control that extends to other social contexts. The course will explore the world of inmates and their strategies of subcultural adaptations to and resistance against incarceration; as well as the role of the prison staff. Particular attention will be paid to how gender, race, economics and politics structure prison policies and dynamics. Specific topics may include cultural representations of prison life, implications of current sentencing practices, privatization and the prison-industrial complex, incarcerated mothers, capital punishment, juvenile justice, and alternatives to incarceration. Open to all classes.

Distributive: Dist:SOC; WCult:W

**SOCY 53 - Power, Politics and the State**

Is America in crisis? The nation is more deeply divided politically, economically, and ideologically than it has been for generations. Washington is in gridlock. Inequality and poverty have been rising. People have become polarized over racial, religious and social issues. Some say the politics of identity and self-interest have been unleashed at the expense of the nation’s general welfare. Some disagree. This course explores these issues. It examines how political, economic and ideological power has been mobilized recently in the United States and with what consequences, including the conservative shift in American politics, the 2008 financial crisis, the election of Donald Trump, and possibly the decline of the United States as the world’s superpower. The course draws on scholarly work in sociology, political science and economics.

Distributive: Dist:SOC; WCult:W

**SOCY 54 - Chasing the (Causal) Dragon: Intermediate Quantitative Data Analysis for Sociologists**

Instructor: Houle

Sociologists and other social scientists are often interested in understanding causal and dynamic social processes such as:

“How do the places we live, work, and play get under the skin and affect health and well-being across the life course?”

“Does upward social class mobility change one’s political attitudes?”
Many of these questions are methodologically difficult to answer with observational (non-experimental) data, and they require that we get a handle on the study of change, context, and causality. You likely have learned how to answer questions like these with standard OLS (linear) regression techniques and cross-sectional data, which remain useful tools in social scientists’ methodological toolbox. But these techniques are also quite limited, and impose strict assumptions that do not allow us to meet many of our goals, adequately answer our questions, or provide stringent tests of our theories and hypotheses.

In this course, we’ll pick up where introductory statistics courses leave off, and get an introduction to more advanced statistical methods for observational data, including but not limited to: regression for categorical dependent variables, fixed and random effects models, and hierarchical linear modeling. This course will be a mix of seminar and lecture, where we will be focused on understanding how we can use these methods to better meet our goals and answer our research questions. Put differently, this course is less focused on going “under the hood” and more focused on “how to drive”—specifically, we will interrogate the assumptions and use of these statistical methods in the social sciences and learn how to implement these methods using STATA. This will include: discussion of core methodological assumptions and limitations, how to apply these statistical methods in different settings, and learning when specific methods are appropriate tools and when they are not. We will explore these issues through student-led discussions, hands-on data analysis, and dissecting the application of these methods in academic journal articles. As part of this course, you will be exposed to (and critique) a wide range of sociological research published in our major disciplinary journals. The course will culminate in an independent research project where students will analyze data and use the one or more of the modeling techniques discussed during the term to answer a sociological research question of their choosing. STATA is required to enroll in this course.

Prerequisite: SOCY 10
Cross-Listed as: QSS 054
Distributive: Dist:QDS

SOCY 50 - Poverty and Public Policy in the U.S.

More than one in ten Americans lives in poverty according to official statistics. This course explores the nature and extent of poverty in the United States and the role of the government in addressing poverty issues. How do we measure poverty? Why does poverty persist? Why is there so little political discourse about poverty in America today? How effective are various poverty alleviation programs?

Cross-Listed as: PBPL 081

SOCY 56 - Sociology of Gender

Instructor: McCabe

What is gender? This seminar examines multiple sociological perspectives on what it means to be a woman, man, boy, or girl in everyday life - including gender as a social structure, an identity, an ideology, and something people "do." Readings and discussions reflect a belief that diversity (race/ethnicity, class, age, sexuality, etc.) is central to the study of gender. Possible topics include: language, the body, science, the wage gap, education, and masculinity during young adulthood.

Cross-Listed as: WSS 34.04
Distributive: Dist:SOC

SOCY 58 - Education and Inequality

Instructor: McCabe

How are schools organized and how do they organize society? What effects do schools have on individuals and what effects do they have on society? Using sociological theories and methods, we will examine the structure of schools and their effects on individuals and society. We will explore both formal and informal education. This course will focus on inequalities, specifically how social class, race, gender, and sexuality both organize and are organized by educational environments.

Cross-Listed as: EDUC 024
Distributive: Dist:SOC; WCult:W

SOCY 60 - Dangerous Intersections: Race, Class and Gender

Instructor: King

Race, class or gender have, to varying degrees, traditionally been employed within the academic disciplines as separate variables or distinct categories of analysis. Increasingly, however, there are calls for and attempts at understanding the relationships among systems of race/ethnicity, sex/gender and class differentiation. Through engaging both theoretical and empirical works, this course will examine the ways in which the simultaneous and interdependent dynamics between these systems shape identity formation and life changes, relationships of marginality and privilege, social continuity and social conflict. It will critically explore the challenges and advantages of intersectional analysis in such contexts as play and leisure, economic roles, sexuality, and law.

Distributive: Dist:SOC; WCult:W
SOCY 61 - Unstalling the Stalled Revolution: Gender (In)equality at Work and at Home
Instructor: Smith
The nature of work, family life, and gender relations has changed dramatically over the last half century. This course examines these trends, with a focus on implications for gender inequality in society. We will focus on patterns in paid labor force participation and family life in the United States, and discuss the major debates surrounding the causes and consequences of such trends. We will also pay attention to how these patterns look across different races, ethnic groups, and socioeconomic status, as well as briefly examine how these trends compare to other countries. We will conclude by exploring the implication of gender inequality for families, as well as work-family policy debates.
Cross-Listed as: QSS 30.17 WGSS 33.05
Distributive: Dist:SOC; WCult:W

SOCY 62 - Love, Romance, Intimacy and Dating
Instructor: Lively
Why do you connect with some people and not others? What exactly is love? And how do you make smart romantic choices for yourself? In this course we examine the social aspects of love, romance, intimacy, and dating. Using sociological theories and methods, we will investigate how cultural beliefs and structural arrangements affect our most intimate feelings and experiences. Specific topics include virginity loss, adolescent sexual behavior, hooking up, dating, intimacy and polyamory.
Cross-Listed as: WGSS 33.07
Distributive: Dist:SOC

SOCY 63 - Trust in Society
You trust your friend to repay the $10 you loaned her last week; investors trust the stock market to accurately value corporate resources; you trust members of your class work group to complete their parts of the group project; patients trust doctors to inform them about the best treatments; some people trust Uber but others trust taxi services; waitresses trust patrons to tip them for good service; many but not all citizens trust the government to enforce laws fairly.

The word trust appears as a verb in each of these examples, but do we really mean the same thing by trust in each of these very different situations? What exactly is trust anyway, and why does it matter? Social science and popular press literature of the past decade suggests that trust is the cause of many “good” things, such as the source of cooperation, the basis of democracy, the foundation of the market economy, the source of national economic power, the key, even, to morality. Given its relation to all things good, it is not surprising that some commentators speak with alarm when they claim that “trust is declining” in society.

In this course we will explore the following questions: What is trust and what are its benefits? How is trust created? How is trust destroyed? Is trust declining in modern society? How would we know if it was? We will read and discuss theoretical and empirical research on trust from sociology and from across the social sciences.
Prerequisite: SOCY 1 or SOCY 2, and one other Sociology course
Distributive: Dist:SOC

SOCY 64 - The Sociology of Emotion
Instructor: Lively
Most people think of emotions as a purely internal experience, composed solely of physiological elements. Recently, however, sociologists have begun to emphasize and explore the social side of emotion—for example, how emotions are shaped socially and culturally, how emotions are socially controlled, and the consequences of emotion for social life. We will examine these and other sociological aspects of emotional experience in this course, including exploring current debates about the social functions of emotions, especially as they pertain to the substantive areas of work and family. Topics include the social causes of emotion; cultural variations in feeling and expression norms (especially in regard to love and anger); changes in American norms over time; the shaping of children's emotions through socialization; individual and social techniques of emotion management; the social distribution of emotional experience; the social functions of emotion; emotional deviance; and the individual and social consequences of emotional display.
Distributive: Dist:SOC

SOCY 65 - The Social Psychology of Inequality
Instructor: Rogers
Sociological social psychology examines the relationship between individuals and the larger social systems in which they are embedded, including interactions, groups, institutions, and cultures. This course will use key social psychological concepts (e.g., status, power, stigma, justice, identity) to explore how inequality is created, reproduced, and resisted. We will study how inequality operates in different social and institutional contexts (e.g., work, family, schools), and for members of different social groups (e.g., race, class, gender, age).
Prerequisite: SOCY 1 or SOCY 2
Distributive: Dist:SOC

SOCY 66 - Markets and Management
Instructor: Harrington
What is money? How do people find jobs? Are markets competitive or cooperative? This course examines these and other questions about how economic behavior is organized, operates and changes historically. It recognizes that economic activity is socially organized and guided by political, cultural and normative as well as economic principles. It explores how economic activity takes many forms, including groups of small competitive firms, large and powerful corporations, and diffuse networks of companies tied together through inter-firm alliances, business associations and other sorts of cooperative and competitive relations with each other, unions, government agencies and universities. It examines the organization and operation of different kinds of markets, different theories of how economic activity is organized, and the social factors that contribute to economic success or failure. It also investigates how managers, unions, policy makers and governments are coping with recent economic challenges, such as those posed by technological change and the globalization of economic activity. Because this is a course in economic sociology—not economics—no background in economics is required.

Distributive: Dist: SOC; WCult: W

**SOCY 68 - Global Health Systems**

Health care systems are unique to the culture and history of each nation. However, all face similar challenges. This course examines health systems across developed and developing nations. Comparisons will be made in terms of: (a) population health, (b) health care organization, (c) health care financing, (d) health professionals and their patients, and (e) health system performance and reform strategies. Understanding how health care is delivered around the world will lead to a better understanding of the relative merits and limitations of various systems. The course is structured as a seminar in which students will be expected to discuss course readings in-depth, as well as develop and present their own research on specific countries of interest.

Distributive: Dist: INT; WCult: NW

**SOCY 69 - The Sociology of Globalization**

Instructor: Eom

The international scope of political, economic, and cultural activity has increased dramatically during the late twentieth and early twenty-first centuries. But how extensive has the trend toward "globalization" been? Is it really a new phenomenon? Has globalization changed societies? If so, how? If not, why not? Are societies becoming more alike because they experience common globalization pressures or do they retain their unique national characteristics? This course examines these questions and more. Specifically, we will look at how globalization has affected business, states, labor movements, social inequality, social welfare, citizenship rights, the environment, culture, national security, and other aspects of society.

Distributive: Dist: INT or SOC

**SOCY 70 - American Labor Relations**

Instructor: Dixon

This course examines the political, cultural, and economic sources of solidarity and mobilization among workers in the US from the late 19th century to the present. Readings and discussion will focus on important historical developments among labor unions, from militant beginnings through an accommodationist phase after World War II and a deep decline, to recent attempts at revitalization. Students will consider the impacts of labor movements on social inequality, politics and on a range of cross-cutting issues around gender, immigration and race. We will conclude by examining the prospects for labor in light of the rapid and profound changes in the world of work and economic activity in the contemporary period.

Distributive: Dist: SOC; WCult: W

**SOCY 71 - Race Matters - "Race" Made to Matter**

Instructor: Keaton

What is race? What are the effects of race in our everyday life? How has science shaped our understanding of race and human diversity? This course explores how and why race is a social construction with profound implications in our social world not only in the U.S. but also beyond its shores. Diverse sciences have established that human beings are well over 99% genetically identical, but race remains a potent vision through division that has been made and made to matter across multiple spheres of life. This ranges from ancestry testing to our identities to how we are categorized to where we live and whom we are taught to love and hate in society. How race intersects with socio-economic disparities related to inclusion and exclusion are among the topics examined in this course.

Cross-Listed as: AAAS 063

Distributive: Dist: SOC; WCult: CI

**SOCY 72 - Critical Community Sociology**

Instructor: Walton

This class will focus on interrogating the drivers of inequality in rural and small-town communities. To understand this, we critically examine several interconnected issues: culture, health, racial equity, education, environment, infrastructure, social services, economic justice, and geographic isolation.

Prerequisite: Students who wish to enroll in this course should have previously completed either Introduction to Sociology or Social Problems. This requirement may be waived for students who have taken certain other sociology
courses; contact the instructor to find out if you are eligible.

Distributive: Dist:SOC; WCult:W

SOCY 73 - Economic Sociology: From Tax to Fraud
Instructor: Harrington

Just over a century ago, Austrian economist Joseph Schumpeter argued that human history, culture and politics cannot be properly understood without taking fiscal events—such as taxation and state budgeting—into account. War, the development of industry, and of capitalism itself all stemmed, he claimed, from the evolution of a “tax state.” From this insight, a century of research has emerged, spanning a wide range of fiscal activities by states, as well as by private actors.

This course will review key themes of this subfield of sociology through four empirical topics: the world of high finance, including the social coordination and networks involved in the trading of securities and commodities; social organization and consequences of financial fraud in a variety of domains, including currency counterfeiting; social history of taxation, including social movements stemming from tax revolts; and system of offshore finance as a mechanism for reproducing inequality and elites.

Distributive: Dist:SOC

SOCY 74 - Professionals, Policy and Practice
Instructor: Harrington

Professionals, Policy & Practice examines how professionals have come to be among the most influential actors in contemporary organizations and the global political economy. Professionals have long been the focus of research in organization and management studies, but interest in them crosses disciplinary boundaries; thus, the course will include readings from sociology, accounting, legal studies, finance, and political science. We’ll draw on their varied theories, methods and approaches to examine how and why professionals coordinate and compete, shaping norms, standards and practices within and among organizations.

Distributive: Dist:SOC

SOCY 75 - Neighborhoods and Health
Instructor: Sharp

Just as conditions within our homes have important implications for our health, conditions in the neighborhoods surrounding our homes also can have major health effects. Social, economic, and environmental features of neighborhoods have been linked with mortality, general health status, disability, birth outcomes, chronic conditions, obesity, depression, injuries, violence, health behaviors and more. In this course, we consider whether and how the characteristics of neighborhoods shape the physical and mental health of individuals, and how neighborhoods contribute to persistent health disparities. Special attention will be devoted to conceptual and methodological challenges to detecting the prevalence and magnitude of ‘neighborhood effects’ on health. Not open to students who have received credit for SOCY 79.12.

Cross-Listed as: QSS 30.15

Distributive: Dist:SOC

SOCY 79 - Upper Division Special Topics Courses

SOCY 79.04 - Drugs and Pharmaceuticals in Society
Instructor: Varies

Licit and illicit drugs make illuminating case studies for our economic and political systems. We investigate the following questions: Are profit motives and humanitarian concerns in irresolvable conflict? Does the international network of illegal drugs show the future of globalization? Does pharmaceutical lobbying demonstrate the anti-democratic influence of money? Is the “war on drugs” political demagoguery or a rational response to human weakness?

Distributive: Dist:SOC; WCult:W

SOCY 79.06 - Sociology of the Body

Can social life exist without bodies? How can attention to the body influence our understanding of social processes of subjectivity, interaction, and practice? While the body has long been an "absent presence" in sociology, multiple approaches to theorizing and researching the body have emerged in recent decades. A sociological approach to the body and embodiment provides an opportunity to bridge the gap between everyday experience and analyses of broad social structures which can seem disconnected from daily life. In this course, we will examine the processes by which individual bodies are shaped by and, in turn, shape social life. Key questions to be explored include: how are bodies regulated by social forces; how do individuals perform the body and how does interactional context influence this performance; what is the meaning of the body in social life; and is there a "right" body?

Distributive: Dist:SOC

SOCY 79.08 - Lest We Forget: History, Collective Memory and Slavery at Dartmouth
Instructor: King

Beyond noting that Wheelock owned slaves, little is known of Dartmouth's other historical connections, if any, to the institution of slavery. This research seminar investigates the college's economic entanglement in the trade and slaveholding; as a site for the intellectual legitimation and contestation of slavery; and the contributions of enslaved persons to its development. We will also review the origins, findings and responses to similar collective
memory projects at other institutions including Brown, Emory and Yale.

Cross-Listed as: AAAS 20.50
Distributive: Dist: SOC

**SOCY 79.09 - Global Inequality Protests**
Instructor: Grinberg

Three years after the 2008 financial crisis a protest movement sparked in Tunisia, and expanded by contagion to Egypt, Morocco and India, and from there to Spain, Chile, Israel, and finally arrived to Wall Street, giving the name to the global movement as the Occupy social movement. These cases largely differ from one another, but have in common their opposition to inequality and readiness to struggle against it. The course will focus on the comparison of protest movements and the political processes each case provoked, using theories of social movements and political sociology, and analyzing the economic, social and political context before the protests sparked and the after movements' peaks. We will analyze and discuss in class the Occupy Wall Street movement and the political process it provoked in the US. Each student will chose an international case for comparison, presenting it in class and writing a research paper of their own as a final essay. Students will work in teams of two for their presentations and final research paper.

Distributive: DIST: INT; WCult:Non-Western Cultures

**SOCY 79.11 - Nationalism and the Radical Right**
Instructor: Pasiëka

This course will introduce you to recent social science contributions to the subject of neo-nationalism and radical right-wing activism. Beginning with terminology, historical context and methodological approaches, we will proceed to an analysis of recent socio-political developments, focusing on the interrelationship between radical right-wing activism and other social phenomena. We will interrogate the reasons behind the appeal of the far right, inquiring into various socio-economic contexts, the role of historical narratives in shaping far-right activism, and the “mainstreaming” of far-right ideas. An overarching question for all these discussions will be that of the agency and motivations of the actors involved.

We will draw cases from numerous contexts around the world and will reflect on similar developments on the political left. The course will allow for discussion of the most recent developments, as experienced by class attendees and reported by mass media. Finally, we will discuss ethical aspects of studying right-wing (and, for that matter, any political) radicalism.

Distributive: Dist:INT or SOC; WCult:CI

**SOCY 80 - Independent Study**
Instructor: Dixon

This course offers the qualified student an opportunity to pursue a subject of special interest, under the direction of a faculty adviser assigned to the student for periodic (usually weekly) conferences. Ordinarily at least one formal paper embodying the results of the reading or research is required. In special situations students may work as a team on a single project. Occasionally credit may be given in SOCY 80 for a research project done in an off-campus term, provided arrangements are made well in advance and adequate off-campus supervision can be assured. Although every effort will be made to accommodate qualified students desiring to carry an independent study, there is no guarantee that independent study can be arranged for any given student in any given term, and preference is given to senior and junior Sociology majors. Normally no student may take SOCY 80 more than twice during the undergraduate career. By permission of a Sociology faculty member prior to registration.

**SOCY 90 - Senior Independent Study Project**
Instructor: Dixon

Independent work under the direction of a member of the Department and with Departmental approval may satisfy the culminating requirement in the major. Those interested should develop their plans with a prospective faculty adviser and must submit and have approved a written proposal at least one term prior to the term in which the course will be elected. Open only to senior majors. By permission of a Sociology faculty member prior to registration.

**SOCY 91 - The Sociological Imagination**
Instructor: Houle (22W), Rogers (22W), King (22S)

C. Wright Mills described "the sociological imagination" as that quality of mind with the ability to grasp the interplay of biography and history, of self and social structure, of private troubles and public issues. As we venture into the 21st century, various issues of class, race and gender inequalities and conflicts appear to dominate popular discourse and policy debates. This capstone seminar will explore current substantive and theoretical expressions of the sociological imagination for providing critical assistance in understanding some of the major social issues of our time. The seminar is designed to emphasize critical discussion through active participation and class presentations. Each student will complete a significant intellectual project which reflects her or his own sociological analysis about an important social issue. Open to senior sociology majors, and others only by permission of the instructor.

Distributive: Dist:SOC; WCult:W

**SOCY 98 - Honors Thesis I**
Instructor: Dixon
Open only to, and required of all, Sociology honors majors, this course involves independent work under the direction of a faculty adviser, culminating in the preparation and presentation of an honors thesis. Sociology honors majors normally elect SOCY 98 during one of the two terms prior to their final term, followed by SOCY 99 during their final term. Exceptions to this pattern are, however, permitted if circumstances warrant. Honors students are normally expected to publicly present their thesis to the Department during the term in which it is completed. By permission of a Sociology faculty member prior to registration.

Students are awarded one course credit for successful completion of this course at the end of the third term of study. Students subsequently register for SOCY 99, and continue with their coursework into a third term. Students do not register for a third term. A final grade will replace the “ON” for both this course and SOCY 99 upon completion of SOCY 99 at the end of the third term of coursework.

**SOCY 99 - Honors Thesis II**

Instructor: Dixon

Open only to, and required of all, Sociology honors majors, this course involves independent work under the direction of a faculty adviser, culminating in the preparation and presentation of an honors thesis. Sociology honors majors normally elect SOCY 99 during the last term in residence. Exceptions to this pattern are, however, permitted if circumstances warrant. Honors students are normally expected to publicly present their thesis to the Department during the term in which it is completed. By permission of a Sociology faculty member prior to registration.

Students are awarded one course credit for successful completion of this course. Students who have registered for SOCY 98 register for this course and continue with their coursework into a third term. Students do not register for a third term. A final grade will replace the “ON” for both SOCY 98 and this course upon completion of this course at the end of the third term of coursework.

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**Spanish and Portuguese Languages and Literatures**

Chair: I. Lozano-Renieblas

Professors: J. Aguado, R. E. Biron, J. M. del Pino, I. Lozano-Renieblas, B. Pastor, S. D. Spitta; Associate Professors: N. S. Cirnigliaro, C. Cortez Minchillo, S. Díaz-Duhalde, R. A. Franconi, A. Gómez, A. Martin, S. Muñoz, I. Reyes, A. Santana; Assistant Professors: J. Quintana-Navarrete; Research Assistant Professor R. Rey Agudo; Senior Lecturers K. Antigua, P. Asensio, P. Carranza, R. M. Matorras, G. M. Mayo-Prada, N. Monetti, D. J. Moody, I. Saucedo; Lecturers M. C. de Greiff, M. E. González Borgaro; Visiting Lecturers S. Carter

To view Spanish courses: https://spanport.dartmouth.edu/undergraduate/courses/all-courses-spanish

To view Portuguese courses: https://spanport.dartmouth.edu/undergraduate/courses/all-courses-portuguese

**Major and Minor**

Complete information about Major/Minor/Modified Major declaration here: http://www.dartmouth.edu/regguides/dartworks/declare_major_or_minor.html

The program in Spanish and Portuguese offers the opportunity to do intellectual work in the Humanities in a foreign language. Students may graduate in one of the following major concentrations: (a) Hispanic Studies, (b) Romance Studies, (c) Modified Major in Hispanic Studies, and (d) Modified Major in Lusophone Studies (Literature and Culture of Brazil and the Portuguese speaking world). The Department offers minors in Hispanic Studies, Lusophone Studies, and Hispanic and Lusophone Studies.

The areas of concentration developed in the Department focus on the languages, literatures, and cultures of Latin America, the Spanish Caribbean, Spain, Brazil, and the Portuguese speaking world. Students are encouraged to explore the cultural, social, political, and economic specificities of these regions as well as the impact of Hispanic and Brazilian communities in the US. To that end, courses cover a variety of historical periods, regional traditions, modes of artistic expression, and forms of cultural critique. The major provides students with interpretive and writing skills that are key for careers in the Arts and Humanities, Education, Government, International Relations, International Business, Law, Medicine, and Social Service. It also directly prepares students to succeed in graduate school in such fields ranging from Hispanic and Brazilian Cultural Studies, History, Comparative Literature, to Medicine, and Law.

In consultation with a faculty advisor, students select their upper-level courses from a wide array of yearly offerings. Students are encouraged to meet with the Major Advisor in the Department of Spanish and Portuguese early in their studies to review course selections, discuss foreign study programs, and plan for an Honors Thesis on a topic of interest. Major programs usually include at least one term of study on a Dartmouth Foreign Study Program (FSP) in Spain, Latin America, or Brazil. All major and minor plans must be approved in person by a Major Advisor of the Department of Spanish and Portuguese after the student
has submitted their online course of study. It is the responsibility of the student to contact the Major/Minor Advisor.

Student majors, minors and modified majors can take one course in English in the Department towards their plan.

NOTE: All major and minor plans must be approved by a Major/Minor Advisor of the Department of Spanish and Portuguese after the student has submitted their online course of study.

A. Major in Hispanic Studies

Prerequisite: SPAN 9 or SPAN 15 (or equivalent)

The major program in Hispanic Studies consists of at least 9 courses numbered 20 or higher. Courses for this major are taught in Spanish and English (one). Approval for this option will be granted and only for a course in English taken after a student has completed SPAN 20. Courses taken outside the Department need to be petitioned for approval.

Courses must be distributed as follows:

1. SPAN 20

SPAN 20 is required for majors and minors and counts towards the major and minor. It can be taken concurrently with other 30-level courses. It is a prerequisite for all upper-level courses (SPAN 40 and higher).

2. Spanish Survey Courses and Foreign Study Programs

   a. Survey Courses: SPAN 30, SPAN 31, SPAN 32

   These are introductory courses with a historical or survey approach. All students must take at least one of these courses.

   Students not participating on a Foreign Study Program (FSP) may count up to two of these courses toward the major. Foreign Study Program students may count only one.

   b. Foreign Study Courses: SPAN 33, SPAN 34, SPAN 35, SPAN 36

   Prerequisites: Students may participate in a Foreign Study Program after having successfully completed SPAN 9 or SPAN 15 (or equivalent), SPAN 20, and one course from the 30, 31 and 32 survey sequence.

   Students may count up to two Foreign Study Program courses (SPAN 33-36) toward the major. The total number of courses that Foreign Study Program students may count towards their major from the 30 sequence (SPAN 30-36) will never exceed three.

   Note: Students studying on two Foreign Study Programs will consult with the Major Advisor and petition the department for individual adjustments.

3. Topics Courses: SPAN 40-77

In consultation with the Major Advisor, students choose at least four of these upper-level courses from among the offerings of the department. Students who do not participate in a Foreign Study Program must choose at least five.

4. Independent Study: SPAN 83

One Independent Study (SPAN 83) may count as an upper-level course for the major. The Department projects its upper-level offerings up to two years in advance so that students can thoughtfully plan an individualized course of study in consultation with the Major Advisor. Students interested in pursuing an Independent Study must identify their topic and faculty advisor and present a proposal to their faculty advisor and to the Department for approval no later than seven weeks of the term preceding the term they wish to undertake the Independent Study.

5. Culminating Experience: Senior Seminar (SPAN 80)

The Senior Seminar is required for all seniors. SPAN 80 allows students to explore, debate, and creatively produce written work or other forms of knowledge (plays, short films, photographic essays, etc.) on a topic relevant to Hispanic Studies, a process enhanced by the small group setting of the seminar. SPAN 80 fulfills the Culminating Experience required for the major and will be offered winter and spring of each academic year.

In special cases, the Culminating Experience may be fulfilled by a different upper-level course. In that case, students will be required to complete additional work as established by the course professor. A petition to the Major Advisor and Chair must be made by the last week of the term prior to registering for this alternate course.

B. Major in Romance Studies

Prerequisite: SPAN 9 or SPAN 15 (or equivalent)

The major program in Romance Studies consists of ten courses taken in two of the Romance Languages offered at Dartmouth College (Spanish, Portuguese, French, or Italian), one serving as their primary language, the other as their secondary. Six of these courses will be selected among the course offerings of the primary language and four from the secondary. Students will work closely with the Major Advisor in coordinating their course of study. Courses for the primary language are taught in Spanish and English (one). Approval for this option will be granted and only for a course in English taken after a student has completed SPAN 20.

When Spanish is the primary language, the six courses in this language must be distributed as follows:

1. SPAN 20

SPAN 20 is required for majors and minors and counts towards the major and minor. It can be taken concurrently with other 30-level courses. It is a prerequisite for upper-level courses (SPAN 40 and higher).
2. Survey Courses (SPAN 30-32) and Foreign Study Program Courses (SPAN 33-36).

Students must take at least one of these courses. No more than two may count toward the major (except for students enrolled in a Foreign Study Program, who can count a maximum of three). The prerequisites for Foreign Study Programs also apply to majors in Romance Studies.

3. Upper-Level Courses (SPAN 40 – 77) and Independent Study (SPAN 83).

In consultation with the Major Advisor, students choose the remaining courses from the upper-level course list.

One Independent Study (SPAN 83) may count as an upper-level course for the Major in Romance Studies. The Department projects its upper-level offerings up to two years in advance so that students can thoughtfully plan an individualized course of study in consultation with the Major Advisor. Students interested in pursuing an Independent Study must identify their topic and faculty advisor and present a proposal to their faculty advisor and to the Department for approval no later than the seventh week of the term preceding the term they wish to undertake the Independent Study.

4. Culminating Experience: Senior Seminar (SPAN 80)

Students pursuing a major in Romance Studies whose primary language is Spanish must take the Senior Seminar (SPAN 80) as one of their six upper-level courses. This course also fulfills the Culminating Experience required of all seniors.

The four courses in the secondary language must be selected from among courses that count towards the major or minor in that respective language.

C. Modified Major in Hispanic Studies

Prerequisite: SPAN 9 or SPAN 15 (or equivalent)

The modified major in Hispanic Studies consists of 10 courses, at least six of which must be in Spanish and the remaining four from appropriate major-level courses. Students will work closely with the Major Advisor in coordinating their course of study. Courses are taught in Spanish and English (one). Approval for this option will be granted and only for a course in English taken after a student has completed SPAN 20.

The six Spanish courses must be distributed as follows:

1. SPAN 20

SPAN 20 is required for majors and minors and counts towards the major and minor. It can be taken concurrently with other 30-level courses. It is a prerequisite for upper-level courses (SPAN 40 and higher).

2. Survey Courses (SPAN 30-32) and Foreign Study Courses (33-36)

Students must take at least one of these courses. No more than two of these courses may count toward the major (except for students enrolled in a Foreign Study Program, who can count a maximum of three).

The prerequisites for Foreign Study Programs also apply to modified majors in Hispanic Studies.

3. Upper-Level Courses (SPAN 40 – 77) and one Independent Study (SPAN 83)

In consultation with the Major Advisor, students choose the remaining courses for their Modified major from the upper-level course list.

One Independent Study (SPAN 83) may count as an upper-level course for the Modified Major in Hispanic Studies. The Department projects its upper-level offerings up to two years in advance so that students can thoughtfully plan an individualized course of study in consultation with the Major Advisor. Students interested in pursuing an Independent Study must identify their topic and faculty advisor and present a proposal to their faculty advisor and to the Department for approval no later than the seventh week of the term preceding the term they wish to undertake the Independent Study.

4. Culminating Experience: Senior Seminar (SPAN 80)

Students pursuing a Modified Major in Spanish must take the Senior Seminar (SPAN 80) as one of their six required
courses. This course also fulfills the Culminating Experience required of all seniors.

D. Modified Major in Lusophone Studies

Prerequisite: PORT 9

The modified major in Lusophone Studies consists of ten courses, at least six of which must be in Portuguese and the remaining four from appropriate major-level courses.

The six Portuguese courses must be distributed as follows:

Survey Courses PORT 20

Upper-level courses (PORT 60 – 63) and Independent Study (PORT 83). Students must take four of the courses in this list.

One Independent Study (PORT 83) may also count as an upper-level course for the Modified Major. The Department projects its upper-level offerings two years in advance so that students can thoughtfully plan an individualized course of study in consultation with the Major Advisor. Students interested in pursuing an Independent Study must identify their topic and faculty advisor and present a proposal to their faculty advisor and to the Department for approval no later than the seventh week of the term preceding the term they wish to undertake the Independent Study.

3. Culminating Experience: Senior Seminar (PORT 80)

Students pursuing a Modified Major in Lusophone Studies whose primary language is Portuguese must take the Senior Seminar (PORT 80) as one of their six upper-level courses. This course fulfills the Culminating Experience required of all seniors.

Minor

A. Minor in Hispanic Studies

Prerequisite: SPAN 9 or SPAN 15 (or equivalent)

The minor in Hispanic Studies consists of at least five courses taught in Spanish and English (one). Approval for this option will be granted and only for a course in English offered by the Department and taken after a student has completed SPAN 20. The five Spanish courses must be distributed as follows:

1. SPAN 20

SPAN 20 is required for majors and minors and counts towards the major and minor. It can be taken concurrently with other 30-level courses. It is a prerequisite for upper-level courses (SPAN 40 and higher).

2. Survey Courses (SPAN 30-32) and FSP Courses (SPAN 33-36)

Students must take at least one of these courses. No more than two may count toward the minor, except for students doing a Foreign Study Program who can count a maximum of three.

3. Upper-Level Courses (SPAN 40 - 77) and Independent Study (SPAN 83)

In consultation with the Major/Minor Advisor, students choose the remaining courses from the upper-level offerings. The Department projects its course offerings up to two years in advance so that students can thoughtfully plan an individualized course of study in consultation with the Major Advisor.

One Independent Study (SPAN 83) may also count as an upper-level course for the Minor. Students interested in pursuing an Independent Study must identify their topic and faculty advisor and present a proposal to their faculty advisor and to the Department for approval no later than the seventh week of the term preceding the term they wish to undertake the Independent Study.

B. Minor in Lusophone Studies

Prerequisite: PORT 9 (or equivalent)

The minor in Lusophone Studies consists of at least five courses, which must be distributed as follows:

1. Survey Courses PORT 20

2. Upper-level courses (PORT 60 – 63) and Independent Study (PORT 83). Students must take four of the courses on this list.

One Independent Study (PORT 83) counts for the Minor in Lusophone Studies. The Department projects its upper-level offerings two years in advance so that students can thoughtfully plan an individualized course of study in consultation with the Major Advisor. Students interested in pursuing an Independent Study must identify their topic and faculty advisor and present a proposal to their faculty advisor and to the Department for approval no later than the seventh week of the term preceding the term they wish to undertake the Independent Study.

C. Minor in Hispanic Lusophone Studies

Prerequisites: PORT 9 and SPAN 9 (or SPAN 15 or equivalent)

The Minor in Hispanic and Lusophone Studies consists of at least five courses, which must be distributed as follows:

1. PORT 20 and SPAN 20 - required for the Minor

2. Upper-level courses: two in Portuguese and one in Spanish, or two in Spanish and one in Portuguese. These courses can be taken in any combination, either on campus or abroad.

Portuguese courses on campus: PORT 60-63, 83
Spanish courses on campus: SPAN 30-32, 40-77
Spanish courses abroad: SPAN 33, 35 (FSP Buenos Aires), SPAN 34, 36 (FSP Madrid)

Transfer Credit

Only upon its approval will the Department of Spanish and Portuguese allow for a maximum of two transfer credits from comparable institutions. The Department does not give transfer credit for SPAN 1, SPAN 2, SPAN 3, PORT 11 or PORT 3.

Honors Program

Students who qualify for the Honors Program (described in the Regulations section of this catalog) and wish to pursue this Program in any of the major options offered by the Department must identify a topic of interest and a faculty advisor who will serve as the director of the Honors Project. Students will prepare a written proposal and submit it to their advisor and to the department for approval. The proposal must be submitted by the end of the term prior to registering for SPAN 90 or PORT 90. All students pursuing an Honors Program must take the Honors Course (SPAN 90 or PORT 90) and complete an Honors Thesis.

Complete information is available here: https://spanport.dartmouth.edu/undergraduate/honors-thesis-program

Language Study Abroad

For 2021-22:

Spanish L.S.A.: Spring - Buenos Aires, Argentina

Spanish L.S.A.: Winter, Spring - Barcelona, Spain

Prerequisite: Minimum grade of B– in SPAN 2, or equivalent preparation; acceptance into the program. Students live with families for one term in Spain or Argentina.

A student may choose to satisfy the language requirement through a combination of two preparatory courses at Dartmouth and one term off campus on the L.S.A. The preparatory courses must be taken within six months of departure. Students who have not studied Spanish at Dartmouth or who have taken SPAN 2 more than six months before departure must attend a Special Drill (non-credit) designed to prepare them for the program. Students who have fulfilled the language requirement are not eligible for the L.S.A.

Upon successful completion of the program, credit will be awarded for SPAN 3, SPAN 5 and SPAN 6. The three courses complete the language requirement. Students who have completed an LSA may skip SPAN 9 and enroll in SPAN 20.

Students will be accepted on the basis of their application dossier, actual participation in the program is contingent upon the maintenance of satisfactory academic standing, satisfactory participation in the Special Drill (for those who must take it), and compliance with orientation procedures.

Complete and deadline information is available for the Barcelona LSA: https://guarini.dartmouth.edu/programs/spanish-lsa-barcelona

Complete and deadline information is available for the Buenos Aires LSA: https://guarini.dartmouth.edu/programs/spanish-lsa-buenos-aires

Language Study Abroad Plus

For 2021-22:

Spanish L.S.A.+ Winter - Buenos Aires, Argentina

Prerequisite: Minimum grade of B- in SPAN 9, or SPAN 15 or equivalent preparation; acceptance into the program. The L.S.A. Plus is a program designed for students who have satisfied the language requirement and are prepared for a more advanced language study abroad experience. Students who have taken SPAN 9, or SPAN 15 or its equivalent more than six months before departure must attend Special Drill (non-credit) during the term prior to the program.

Upon successful completion of the program, credit will be awarded for three courses, SPAN 20, 21 and 32. SPAN 20 and 32 offer credit for all majors and minors in Spanish. SPAN 32 may also serve as the 30-level prerequisite course for the F.S.P. in Madrid, Spain or Buenos Aires, Argentina.

Students will be accepted on the basis of their application dossier. Actual participation in the program is contingent upon the maintenance of satisfactory academic standing, satisfactory participation in drill (for those who must take it), and compliance with orientation procedures.

Foreign Study Program

For 2021-22:

Spanish F.S.P.: Winter - Madrid, Spain

Spanish F.S.P.: Spring - Buenos Aires, Argentina

Prerequisite: Acceptance into the program and one course from SPAN 30, SPAN 31 or SPAN 32.

Students live with families for one term in Argentina or Spain. Courses are taught by local faculty and by the accompanying Dartmouth faculty member. Courses are designed to offer students experiences that are unique to on-site learning. Topics vary according to the specificity of each country, but they include the study of art in its many manifestations, sociological and cultural movements, urban cultures, etc. Importance is also placed on advanced grammar, oral, and writing skills. Demonstration of the
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importance of the program to the student’s overall academic program at Dartmouth is a factor considered for acceptance.

Upon successful completion of the program, credit will be awarded for three courses (Argentina - SPAN 23, SPAN 33, SPAN 35; or Spain - SPAN 24, SPAN 34, SPAN 36). Two courses only at the level 30 may be counted towards the major or minor in Spanish.

Foreign Study may not be taken during a student’s last term at Dartmouth.

Complete and deadline information for the Madrid FSP is available here: https://guarini.dartmouth.edu/programs/spanish-fsp-madrid

Complete and deadline information for the Buenos Aires FSP is available here: https://guarini.dartmouth.edu/programs/spanish-fsp-buenos-aires

The CASA Cuba Program:
The CASA Cuba Program offers students a unique opportunity to have direct access to Cuba’s leading institution of higher learning, the University of Havana, and to Casa de las Américas, the Cuban government’s premier research institution since its founding in 1959. Students who have taken course(s) at La Casa de Las Americas can receive two credits for Spanish Majors and up to one credit for Spanish Minors.

Complete information is available here: https://guarini.dartmouth.edu/programs/consortium-advanced-studies-abroad-cuba

SPAN - Spanish Courses

To view Spanish requirements, click here (p. 666).

SPAN 1 - Spanish I

Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

Introduction to spoken and written Spanish. Intensive study of introductory grammar and vocabulary with a focus on culture. Oral class activities, readings and compositions. Weekly practice in the virtual language laboratory includes viewing TV series and films and weekly drill sessions. Never serves in partial satisfaction of the Distributive or World Culture Requirements.

SPAN 2 - Spanish II

Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

Continuation of SPAN I. Further intensive study of grammar and vocabulary with a focus on culture. Oral class activities, readings and compositions and continued practice in the virtual language laboratory. Weekly drill sessions. Never serves in partial satisfaction of the Distributive or World Culture Requirements. Open to first-year students by qualifying test and to others who have passed SPAN I.

SPAN 3 - Spanish III

Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

Continuation of SPAN II. SPAN III provides additional, intensive study of grammar and vocabulary with a focus on literature and culture. Oral class activities, readings and compositions and continued practice in the virtual language laboratory. Weekly drill sessions. Completion of this course on campus or as part of the LSA constitutes fulfillment of the language requirement. Never serves in partial satisfaction of the Distributive or World Culture Requirements. Open to first-year students by qualifying tests and to others who have passed SPAN II.

SPAN 5.01 - Language Study Abroad: Barcelona

Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

Taught in the context of the Language Study Abroad program, this course in Hispanic culture reinforces listening, reading, speaking, and writing skills in Spanish. The thematic focus is on local and regional art history, with special emphasis on the city as a dynamic form of cultural production through time. Attending to political, social, economic, and religious contexts, the course features brief presentations by local personnel as well as relevant field trips. Assignments include conversation, writing projects, oral presentations, and a final course examination. Not open to students who have received credit for SPAN 005 or SPAN 05.02.

Distributive: WCult:W

SPAN 5.02 - Language Study Abroad: Buenos Aires

Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

Taught in the context of the Language Study Abroad program, this course in Hispanic culture reinforces listening, reading, speaking, and writing skills in Spanish. The thematic focus is on local and regional art history, with special emphasis on the city as a dynamic form of cultural production through time. Attending to political, social, economic, and religious contexts, the course features brief presentations by local personnel as well as relevant field trips. Assignments include conversation, writing projects, oral presentations, and a final course examination. Not open to students who have received credit for SPAN 005 or SPAN 05.01.

Distributive: WCult:NW
SPAN 6.01 - Language Study Abroad: Barcelona
Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses
Taught in the context of the Language Study Abroad program, this introductory course in Hispanic literature strengthens listening, reading, speaking and writing skills in Spanish. The reading materials are selected to help students develop their analytical strategies as well as to expose them to relevant cultural issues and major figures of the region in which they are studying. Assigned work may include brief research papers, oral presentations, a mid-term exam and a final course examination. Not open to students who have received credit for SPAN 006 or SPAN 06.02.
Distributive: Dist:LIT; WCult:W

SPAN 6.02 - Language Study Abroad: Buenos Aires
Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses
Taught in the context of the Language Study Abroad program, this introductory course in Hispanic literature strengthens listening, reading, speaking and writing skills in Spanish. The reading materials are selected to help students develop their analytical strategies as well as to expose them to relevant cultural issues and major figures of the region in which they are studying. Assigned work may include brief research papers, oral presentations, a mid-term exam and a final course examination. Not open to students who have received credit for SPAN 006 or SPAN 06.01.
Distributive: Dist:LIT; WCult:NW

SPAN 7 - First-Year Seminars in Spanish and Spanish-American Literature
Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

SPAN 9 - Culture and Conversation: Advanced Spanish Language
Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses
This course serves as a bridge between SPAN 3 and SPAN 20. Through the intensive study of a variety of aural media (e.g., documentaries, TV and radio programs, films), grammar, vocabulary and speech acts as presented in the course packet, students will actively practice listening and speaking skills with the goal of reaching an Intermediate High Level (on the ACTFL scale). Additional written material may be added according to the professor’s particular interests.
Prerequisite: SPAN 3; AP Lang 4 or AP Lit 4; local placement test 600+, or permission of the instructor. SPAN 9 serves as a prerequisite for SPAN 20.

SPAN 15 - Latinx Writing and Composition
Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses
This course draws on the strengths of Latinx Language Learners in order to enhance their skills in writing and composition. Using a variety of media and genres, students will explore the cultural experiences of US Latinx communities and the Spanish-speaking world. The course will focus on structures related to languages and cultures in contact, and review grammar to expand students’ range from informal to academic communication. The course will have an experiential learning component, including student projects throughout the term, and participation in events around campus related to Spanish-speaking communities. It can be used to fulfill the language requirement. It serves as pre-requisite for Spanish 20. May not be taken in conjunction with Spanish 9.

SPAN 20 - Writing and Reading: A Critical and Cultural Approach
Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses
Spanish 20 is the first course of the Major/Minor, and serves as transition between the skills acquired through the Spanish language courses (Spanish LSA or equivalent preparation) and those needed for all upper-division courses (30 and above). Through the study of critical and theoretical vocabulary, and the reading of short stories, poems, films, theatrical plays and journalistic articles, students will acquire analytic tools to comprehend and analyze several types of texts. This course is also designed to familiarize students with different textual genres and a wide array of literary and interpretative key concepts.
Prerequisite: Participation in one of the Spanish LSA programs; SPAN 9 or SPAN 15; exemption from SPAN 9 based on test scores (see Department web site); or permission of instructor. SPAN 20 may be taken in conjunction with 30-level survey courses. It serves as a prerequisite for all Spanish courses 40 and higher.
Distributive: LIT

SPAN 21 - Traditional and Contemporary Andean Cosmogonies and Cultural Production: A Historical Approach
Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses
This course will connect course content with cultural activities such as excursions, visits to museums, and lectures. The thematic focus of the course will be Andean Art and Culture from pre-Hispanic times to the present, elements of Andean cosmogony, civilizational clash, and cultural miscegenation included.
Distributive: Dist:SOC; WCult:NW
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SPAN 22 - Modern and Contemporary Spanish Artistic and Cultural Production
Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses
This course will make students fluent in some of the main topics relevant to modern and contemporary Spanish cultural production, with a particular emphasis on Northern Spain. The course will not count towards the major or minor.
Distributive: Dist:ART; WCult:W

SPAN 23 - Argentine Cultural Heritage
Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses
This course deepens the student's knowledge of the Argentine art and cultures through the study and discussion of the visual, architectural and plastic arts, as well as music and performance. The materials will expose the students to the main trends and topics of contemporary Argentine art, cultures and society.
Prerequisite: Acceptance into the Dartmouth Foreign Study Program, Argentina.
Distributive: Dist:ART; WCult:NW

SPAN 24 - Spanish Cultural Heritage
Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses
This course deepens the student's knowledge of the Spanish art and cultures through the study and discussion of the visual, architectural and plastic arts, as well as music and performance. The materials will expose the students to the main trends and topics of contemporary Spanish art, cultures and society.
Prerequisite: acceptance into the Dartmouth Foreign Study Program, Spain.
Distributive: Dist:ART; WCult:W

SPAN 30 - Introduction to Hispanic Studies I: Middle Ages-17th Century
Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses
This course presents an overview of major literary trends and cultural productions from the Middle Ages to the 17th century in both their Spanish and Spanish American contexts. Students will read a representative selection of major literary works from that period, both Peninsular and Spanish-American, and discuss theoretical, aesthetic, and critical issues pertinent to the Renaissance, the Baroque, colonialism, syncretism, etc. Texts and other materials may be cultural and visual.
Prerequisite: SPAN 20
Distributive: Dist:LIT; WCult:W

SPAN 31 - Introduction to Hispanic Studies II: 18th and 19th Centuries
Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses
This course presents a chronological study of major trans-Atlantic literary trends and cultural productions, corresponding to the cultural and aesthetic movements of the eighteenth and nineteenth centuries. Students will read a representative selection of major literary works, both Peninsular and Spanish-American, from that period and discuss theoretical, aesthetic, and critical issues pertinent to modernity, empire, enlightenment, nationalism, gender, democracy, etc. Texts and other materials may be cultural and visual.
Prerequisite: SPAN 20
Distributive: Dist:LIT; WCult:W

SPAN 32 - Introduction to Hispanic Studies III: 20th-21st Centuries
Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses
This course presents a chronological study of trans-Atlantic major literary trends and cultural productions, corresponding to the cultural and aesthetic movements from the 1880s to the present. Students will read a representative selection of major literary works from that period, both Peninsular and Spanish-American, and discuss theoretical, aesthetic, and critical issues pertinent to modernismo, the avant-garde, revolution, post-modernism, etc. Texts and other materials may be cultural and visual.
Prerequisite: SPAN 20
Distributive: Dist:LIT; WCult:W

SPAN 33 - Argentine Civilization: Society, Culture and Politics in Argentina
Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses
This course studies socio-political events in the Southern Cone that have shaped the contemporary configuration of society in Argentina. Emphasis will be placed on key political figures, social movements, oppositional tensions, dictatorship and democracy, and their articulation in the cultural field.
Prerequisite: Acceptance into the Dartmouth Foreign Study Program, Argentina.
Distributive: Dist:SOC; WCult:NW

SPAN 34 - Society, Culture and Politics in Spain
Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses
This course studies socio-political events in the Iberian Peninsula that have shaped the contemporary configuration of society in Spain. Emphasis will be placed on key political figures, social movements, oppositional tensions, dictatorship and democracy, and their articulation in the cultural field.

Prerequisite: acceptance into the Dartmouth Foreign Study Program, Spain.

Distributive: Dist: SOC; WCult: W

**SPAN 35 - Studies in Spanish-American Literature and Culture**

Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

This course is designed to offer students an opportunity to study a topic of interest in Spanish American literature and culture through the reading of a wide variety of literary and cultural texts. Emphasis will be placed on Argentina and the Southern Cone. Topics may vary.

Prerequisite: Acceptance into the Dartmouth Foreign Study Program, Argentina.

Distributive: Dist: LIT; WCult: NW

**SPAN 36 - Studies in Modern and Contemporary Spanish Literature**

Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

This course is designed to offer students an opportunity to study a topic of interest in the literatures and cultures of Spain through the reading of a wide variety of literary and cultural texts. Topics may vary.

Prerequisite: acceptance into the Dartmouth Foreign Study Program, Spain.

Distributive: Dist: LIT; WCult: W

**SPAN 40.07 - Dark Mirror: Spanish Detective Fiction**

Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

This course examines Spanish contemporary society through the dissecting lens of one of the most popular literary subgenres: detective fiction or crime novel. Starting with some early examples, we will read and analyze short stories and novels published from the end of the Spanish Civil War (1939) to present. Authors will include Francisco García Pavón, Manuel Vázquez Montalbán, Javier Marías, Antonio Muñoz Molina, Lorenzo Silva, and Alicia Giménez Bartlett.

Prerequisite: SPAN 20

Distributive: Dist: LIT; WCult: W

**SPAN 40.12 - ‘Cosas de niños:’ Representations of Children in Modern Spanish Culture**

Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

Children have always been a constant in literary and visual representations of all times, from the picaresque novel to court paintings where infants occupy a central role. However, it is in the 18th century, with the formation of the modern state, that infancy begins to be approached as an autonomous category and as a cultural concern. Since then, it has been widely studied by different disciplines, from philosophy to sociology, medicine, psychology and the arts. Along with readings by Freud and Rousseau that will help us shape the modern concept of infancy, this course will explore the representation of children in modern Spanish literature and culture as a way to address a number of controversial issues that are brought to our attention by way of the children’s universe: war and revolution; the failures of the education system; nature vs. nurture; the crisis of traditional political institutions; the shortcomings of medicine, the challenges of modernity, the emergence of a popular consciousness; or the role of women.

Prerequisite: SPAN 20

Distributive: Dist: LIT; WCult: W

**SPAN 45.05 - The Stolen Children of Argentina and Spain**

Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

In this seminar we will analyze compare and contrast how Argentina and Spain work preserving and dealing with the horrors of the past. We will study theories of memory and trauma and how novels, films, and performances convey the experience of violence, stolen identity, and the search of parents for their lost children and the children’s search for their lost parents. Which languages and which images are used in Spain to reveal publically the crimes that had been hidden for so long? Which similarities and differences can be found in the transatlantic comparison to Argentina?

Prerequisite: SPAN 20

Distributive: Dist: ART; WCult: CI

**SPAN 45.07 - Slaves from the Past, Slaves Next Door**

Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

This course will deal with human bondage. It will try to address a fundamental question: Under what circumstances and through what strategies does a human being strip another human being of his/her humanity? From Columbus to Almodóvar we will use modern theories of human domination/bondage — Hegel and Nietzsche’s theorization
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of the master-slave dynamics—as we explore slavery and human bondage through history in literature and film.

Materials for the course will include readings from Columbus, Hegel, Nietzsche, Manzano, Gomez de Avellaneda, Carpentier and García Márquez, as well as films by Spielberg, Pontecorvo, Almodóvar, y Bollaín.

Prerequisite: SPAN 20
Distributive: Dist:INT; WCult:CI

SPAN 50.02 - New Sexual and Social identity in Film and Literature in Post-Franco Spain

Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

This course addresses changes in Spanish society since the end of the dictatorship. These include the relativization of family, love, drugs, sexuality, life, death, and democracy; and the devaluation of morals, history, and culture. Authors include Vázquez Montalbán, Marías, Loriga, Montero, Riera, Almodóvar, de la Iglesia, Amenábar, and Balaguéró.

Prerequisite: SPAN 20
Distributive: Dist:LIT; WCult:CI

SPAN 55.04 - Humor and Politics in Latin American Literature, Film and Culture

Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

Comedy and humor often serve to undermine cultural elitism and denounce social injustice. Many Latin American authors, filmmakers, and artists have used comedy and humor in politically subversive ways, but also as a way to legitimize the cultures and communities of the marginal and disenfranchised. This course will explore several theories of humor as well as Latin American traditions of humor.

Prerequisite: SPAN 20
Distributive: Dist:LIT; WCult:NW

SPAN 55.05 - Indignant Spain: Crisis and New Social Movements Today

Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

This course examines the notion of "crisis" as a creative paradigm for rethinking traditional experiences of the political, social, and cultural spheres in today's Spain. The course will focus on the deep connections between democracy and alternative ways of thinking about the political participation of citizens confronting the dismantling of their social, family, and individual welfare by global and national neoliberalist economic and social policies. Students will read from a wide array of texts (literature, cultural and political theory) and also watch documentaries and films on the idea of "crisis" as it is currently playing itself out in Spain's 15-m and Indignados movements. Works by: Martin Patino, Alvarez, Thornton, Grueso, Lacuesta, Arce among others.

Prerequisite: SPAN 20
Distributive: Dist:SOC; WCult:NW

SPAN 55.06 - Slaughterhouses. The Life and Death of Humans and Animals in the Southern Cone

Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

This course focuses on the slaughterhouse as an image that has haunted Latin American cultures for centuries, especially in the Southern Cone region. The image of the slaughterhouse for a society can be used to define, contrast, compare or put into question our own subjectivity for it highlights the flesh and blood that go into human labor. At the same time, the image of the slaughterhouse denounces the abusive nature of power, a regulating force applied to bodies, both human and non-human. Using the image of the slaughterhouse in texts and images spanning 250 years of Southern cone history, we will explore various issues and debates within animal studies, from animal rights and biopolitics to modernization of killing, exploitation of bodies and zones of indetermination between animals and humans. Texts and images include: Echeverría, Lamborghini, Viñas, Walsh, Larra, Kohan, Busqued, Solanas, Sanjines, Foucault, Deleuze, Agamben and Giorgi.

Prerequisite: SPAN 20
Distributive: Dist:SOC; WCult:NW

SPAN 55.13 - Planeta Paraguay. Power and Poetics of a "Land Without Evil".

Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

Guarani peoples in what later became Paraguay believed there was a promised land, Yvymara'ey, or the “land without evil”. Ironically, ever since the Conquest and through modern times Paraguay struggled with internal and external political powers that contributed to the country’s insularity, exploitation, and impoverishment. By the end of Planeta Paraguay students will have stared to explore a lesser-known country from Latin America, to talk about images, texts, and films from some of the main figures of Paraguayan literature and culture. They will be able to discuss and analyze main problems of the ethical and political dimension of representation in Latin America. Students also will gain the disciplinary tools necessary to address such questions within the context of cultural, linguistic, and formal comparisons. Not open to students who have received credit for SPAN 80.16.

Prerequisite: SPAN 20
**SPAN 63.10 - Family Matters: Pedro Almodovar, Gender Reversals, and New Communities**

Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

Pedro Almodóvar Caballero, Spain's most internationally acclaimed and prize-winning filmmaker will be studied in this course for offering a rich counter-cultural filmography that is in deep dialogue with notions of freedom, creativity, contestation, and justice. Almodóvar's filmmaking, both in aesthetic and cultural terms, addresses issues which will appeal to students interested in understanding how culture, politics, and aesthetics get entangled in ways that “queer” gender identity, family structures, notions of community and the societal expectations and limitations surrounding them. The course will also compare his work with other contemporary filmmakers that have reconfigured in their films the boundaries of “family.”

Prerequisite: SPAN 20

Distributive: Dist:LIT; WCult:NW

**SPAN 63.11 - Blood Cinema. Spanish Movies from 1926 to 2019**

Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

In this course, we will watch and discuss some canonical Spanish movies that deal with the literal and metaphorical topic of blood. In fact, blood will work in this class as a constellation of intertwined themes: war, sacrifice, redemption, punishment, revenge, family bonds, vitalist excess, (destructive) passion, sexual desire, Catholic rituals, birth, martyrhood, biopolitics and national identity. Through the lens of the symbol of blood, we will tackle some of the most important political events and cultural problems that have conditioned modern Spanish history. We will also analyze the aesthetic keys and genre characteristics of this heterogenous geneology of films. One important and constant paradox students will confront in these movies is the vacillation between experimental, innovative and looking-forward formal strategies, and regressive subject matters and primitive taboos. Brief essays and excerpts from books will be weekly assigned in order to help student properly contextualize the audiovisual works listed in this syllabus, as well as their directors and historical significance.

Prerequisite: SPAN 20

Distributive: Dist:ART; WCult:CI

**SPAN 63.12 - Got Las Meninas? Spanish Visual Culture and Baroque Imaginaries**

Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

Created in 1656 by the Spanish painter Diego Velázquez, ‘Las meninas’ is one of the greatest European paintings of all times, and by far one of the most analyzed, theorized, and adapted works of art in Modern history. Like many Spanish Baroque artifacts, ‘Las Meninas’ resembles a puzzle that calls for more than one strategy to assemble its pieces together. In this course students will approach El Prado Museum’s most visited work using various strategies vis-à-vis literary classics from Baroque Spain and 20th/21st century scholarship on the Empire and Power, Domesticity, Gender and Sexuality, Court Life, Material Culture and Baroque art. We will also study textual and visual adaptations that rework some of Velázquez’s obsessions. Our goal is to study political, cultural and practical contexts that shed light onto Velázquez’s time and our own ways of interpreting it.

Prerequisite: SPAN 20

Distributive: Dist:ART; WCult:W

**SPAN 65.15 - Cameras and Crisis**

Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

How do we capture a crisis, and how do we respond to one? In such critical circumstances, what stories can cameras share? This course considers some of the visual and audiovisual responses that have emerged in the face of crises from across 21st century Latin America. By carefully analyzing films and photographs, we will examine how artists interpret and even intervene in crises involving migration, the environment, political violence, gender rights, racism, and Indigeneity. As we contemplate narratives ranging from border crossings to the echoes of dictatorships to struggles against exploitative mining practices, we will pay special attention to production histories and always ask the following question: if a crisis demands a decision, how should we understand the creative choices made by filmmakers and photographers? Combining textual analysis with the study of artistic processes will also allow us to reflect on how images can simultaneously explore local crises and inspire transnational solidarity.

Prerequisite: SPAN 20

Distributive: Dist:ART; WCult:NW

**SPAN 70.01 - Great Works of Hispanic Literature: Don Quijote**

Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

From the time of its publication in 1605 (Part I) and 1615 (Part II), *Don Quijote* has provoked radically different interpretations. Taking as point of departure both the comic and the romantic interpretations, the course will explore the meaning of the *Quijote* across the centuries. Its aim will be to understand the *Quijote* both as an autonomous
work of literature and as a highly creative response to the literary and cultural forces from which it was forged. In addition to the historical context and social conflicts in the Hapsburg monarchy, the course will focus on the literary history and the novel as a literary genre and a product of the Medieval “mixtification” which flourished in the Renaissance.

Prerequisite: SPAN 20
Distributive: Dist:LIT; WCult:W

SPAN 70.02 - One Hundred Years of Solitude
Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

Few literary works have ever fascinated readers all over the world the way One Hundred Years of Solitude has. Gabriel García Márquez’s novel opens up a magical world where the boundaries that separate fantasy and reality, fairy tale and history seem to dissolve naturally. And yet, no fictional work has ever been more deeply grounded in the reality and history of a people. The book tells the incredible story of the Buendía family as it develops through the successive cycles of destruction and rebirth that shape history in the mythical world of Macondo. As the story unfolds it illuminates the wonders and terrors of the history of Latin American countries, the complexities and contradictions that have defined their peoples, and shaped their cultures. In this course we will read enjoy and analyze One Hundred Years of Solitude as well as a selection of García Márquez’s short stories and journalistic works. The works will be discussed within the framework of major theoretical and historical issues and in constant dialogue with a variety of secondary sources.

Prerequisite: SPAN 20
Distributive: Dist:LIT; WCult:NW

SPAN 73.11 - Obscene Images: Intro to Visual Studies in Latin America
Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

 Violence, death, sex, disability, race, gender, poverty, and politics were regarded as unthinkable, intolerable, offensive, or simply obscene in different times and regions in Latin America. This course will provide a critical and theoretical approach to textual and visual representations from the 19th century to the present, which have generated controversy over their depiction of these cultural topics. Images of destruction, pictures of war, or paintings excluded by the mainstream culture will be used to familiarize the students with the production and consumption of visual and textual culture and the ethics of representation. The goal of the course is first, to introduce students to Visual Culture/Visual Studies in Latin America, second, to problematize the relation between representation and culture, and, finally, to evaluate the implication of these topics (sex, violence, race, gender, disability, etc…) in relation to power, knowledge, and ethics in Latin American culture. Not open to students who have received credit for SPAN 65.02.

Prerequisite: SPAN 20
Distributive: Dist:ART; WCult:NW

SPAN 75.01 - Writing the Short Story
Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

By asking students to both read and write short stories in Spanish, this course explores how narrating can yield new forms of knowledge about the world around us. As we approach creative work as a way to begin understanding the experiences of others, we will observe a productive constraint: to never write about ourselves. Instead, students will construct characters and find voices through literature as well as through art, ethnography, current events, and even the campus and surrounding areas. Each week, careful analysis of texts by authors such as Silvina Ocampo, Valeria Luiselli, and Liliana Colanzi will highlight the reciprocity between reading and writing, while creative “labs” will cultivate story ideas. Practicing techniques such as listening and interviewing will help students generate material, and during in-class workshops they will receive feedback on drafts of their short stories. The course welcomes students with a range of writing skills, and no previous creative writing experience is required.

Prerequisite: SPAN 20
Distributive: Dist:ART; WCult:NW

SPAN 77.05 - Advanced Writing with Federico García Lorca
Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

This is a writing course, so expressing your ideas and thoughts in coherent and well-thought-out papers and essays is as important as discussing the topic of Lorca’s Theater. You will need to support your writing with evidence taken from the plays, the films, and the critical essays. You will be writing short and long responses and will make oral presentations. Peer review is an essential component of this course.

The purpose of this course is to engage in meaningful conversations with Lorca’s main topics in his theatrical plays. This is the first step to explore theatrical strategies and aesthetics techniques used by Lorca to convey meaning. We need to go beyond the simple description of a play’s plot in order to focus on what the texts are telling us about the author’s literary universe and his
contemporary society. We want to discover Lorca’s mythical universe and his critical take on Spain’s most traditional society. In this course, reading and expressing your ideas in writing are equality as important.

Prerequisite: SPAN 20
Distributive: Dist:LIT; WCult:W

**SPAN 80.22 - The Boom Novels of Spanish America**

Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

This course examines Spanish America’s explosive entrance onto the transnational literary scene in the 1960s during the Cold War. The novelists most typically associated with this “Boom” in Spanish American literature include Gabriel García Márquez, Julio Cortázar, Mario Vargas Llosa, Carlos Fuentes, and Alejo Carpentier. We will explore the political, economic, and aesthetic phenomena that produced the Boom. We will also study the effects of this Boom on both the development of the novel as a genre and on the global dissemination of the idea of Spanish America as a single cultural and ideological entity.

Prerequisite: SPAN 20
Distributive: Dist:LIT; WCult:NW

**SPAN 80.23 - Bullets and Letters: Basque Terrorism and the Arts**

Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

This course will focus on Basque culture produced in response to ETA terrorism. We will study the ideology that governs nationalist discourses, understand the relation between identity and violence, gender and power, and find in the arts (literature, film, painting, photography, and sculpture) a reason to make the humanities one of the legs upon which peace and reconciliation rest. Documents include interviews and writings by former ETA militants and understanding the final dissolution of the organization in 2018.

Globalization has caused an important paradigmatic shift in how "small" cultures are studied and addressed. Small in number but not in significance in current European discussions on democracy and terrorism, the Basque context is proof that the postnationalist turn that tends to govern how we think about ourselves in an ever more interconnected world actually clashes with how we experience our lives on the smaller scale of the everyday. The persistence of ETA terrorism (1959-2009), its death toll of nearly 1000 lives, and a very special turn to reconciliation and memory by many political and cultural actors makes this a timely course give how cultural productions and their textual strategies are contributing in new and exciting ways to processes geared towards peace and reconciliation.

Special emphasis will be placed on the Nanclares de Oca Prison Project and its reconciliation process and interviews by former ETA militants and victims of terrorism. Students will have the opportunity of meeting peace makers, the lead mediator, and possibly speak with victims of ETA violence firsthand at the "Unspeakable Truths" conference that will be held in Spring 2022.

Prerequisite: SPAN 20
Distributive: Dist:LIT; WCult:W

**SPAN 83 - Independent Study**

A program of individual study directed by a member of the Spanish and Portuguese faculty. SPAN 83 will normally consist of a program of reading and research that is not covered in regularly scheduled course offerings. After consultation with the faculty advisor of the project, all Independent Study proposals must be submitted for approval to the Department. Only open to majors in Spanish or Romance Languages. Under normal circumstances, no student may receive credit for this course more than once. Students interested in pursuing an Independent Study must identify their topic and faculty advisor, and present a proposal to their faculty advisor and to the Department for approval no later than the seventh week of the term preceding the term they wish to undertake the Independent Study.

Prerequisite: Permission of the instructor.

**SPAN 90 - Honors Course**

Supervised independent research under the direction of a designated advisor. Honors majors will normally elect this course as the first in the required sequence (90 and 91) for completion of the Honors Program. SPAN 90 is intended to prepare the student for writing the Honors thesis, through readings in primary and secondary texts, theory and methodology. The course will include periodic written assignments and culminate in a final paper.

Prerequisite: Admission to the Honors Program.

**SPAN 91 - Honors Seminar**

A prearranged program of study and research during any term of the senior year, on a tutorial basis, with individual faculty members (normally the thesis advisor.) A thesis and public presentation are the expected culmination of the course.

Prerequisite: Prior admission to the Department's Honors Program; clear evidence of capability to perform honors level work, normally indicated by completion of SPAN 90 with a grade of B+ or higher.
PORT - Portuguese Courses

To view Portuguese requirements, click here (p. 666).

PORT 3 - Portuguese III

Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

PORT III provides additional, intensive study of grammar and vocabulary with a focus on literature and culture. Oral class activities, readings and compositions and continued use of films, music and other media. Weekly drill sessions. Completion of this course constitutes fulfillment of the language requirement. Never serves in partial satisfaction of the Distributive or World Culture Requirements. Open to first-year students by qualifying test and to others who have passed PORT II.

Prerequisite: PORT

PORT 7 - First-Year Seminars in Portuguese

PORT 9 - Writing and Speaking: A Cultural Approach

Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

This course serves as a transition between the basic Portuguese language sequence and upper-level courses. Through a selective review of grammar, vocabulary-building exercises, and readings and discussion of contemporary topics affecting the Portuguese-speaking world, students will develop their ability to write and speak clear, correct and idiomatic Portuguese in order to achieve competence in the language Open to all classes.

Prerequisite: Completion of the foreign language requirement in Portuguese, or permission of the Chair.

Distributive: LIT

PORT 10 - Studies in Brazilian Culture and Society

Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

A course in Brazilian culture and civilization taught in the context of the Language Study Abroad Plus program. Lectures by local personnel concentrate on contemporary political, social, economic, and religious institutions of the country, with attention paid to their historical background. Visits to sites supplement these lectures when appropriate. Assigned work includes preparation of papers and oral presentations, and a final examination.

Distributive: WCult:NW

PORT 11 - Intensive Portuguese

Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

Portuguese 11 is a 1-credit course that combines Portuguese 1 and Portuguese 2 in one term. It is a fast-paced course that introduces students to the Portuguese language and the cultural and social aspects of Brazil and other Portuguese-speaking countries. Students will develop basic communicative skills through engaging activities that cover oral, listening, written, and reading practice. Standard grammar structures will be taught in tandem with idiomatic usage so that students will be ready to use the language in formal and informal situations. Intensive use of films, documentaries, popular music, online news media, and social media will accelerate the learning of the language and provide a fruitful avenue for understanding cultural issues and current events regarding the Portuguese-speaking countries. By the end of this course, students will be able to communicate facts, ideas, habits, and feelings, using present, past, and future tenses. Upon successful completion of this course, students will be able to take Portuguese 3. Never serves in partial satisfaction of the Distributive or World Culture Requirements.

PORT 12 - Introduction to Brazilian Literature

Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

An introductory course, offered in the context of the Language Study Abroad program, dealing with major figures, themes, or genres of Brazilian/Portuguese literature. Areas of concern include critical reading and analysis, style, historical and social perspective.

Distributive: Dist:LIT; WCult:NW

PORT 20 - The Portuguese-Speaking World and its Literatures and Cultures: The Definition of an Identity

Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

This course deals with colonial and modern Portuguese-speaking world, including continental and insular Portugal, Brazil, Lusophone Africa and Asia. Readings (both theoretical and fictional), film, music, and materials from the mass media that deal with the cultural identities and social roles of colonial and modern subjects are approached under different techniques of critical reading and interpretation. The second part of the course, with the disputed “definitions” of Brazilian identity, revises some “theories” or “myths” likes that of "racial democracy". The basic reading in this part is O Que Faz o brasil, Brasil? (What Does Make braz paper Brazil?), by Roberto DaMatta, which focus on the core aspects of the Brazilian identity (or Brazilian stereotyped identity). Considerable emphasis will be placed on speaking and writing skills. Open to first-year students by qualifying test and to others who have passed PORT 9 (LSA ) or have equivalent preparation. PORT 20 is a prerequisite for the Portuguese Foreign Study Program, and also counts towards the minor in Portuguese or the major in Romance Languages and modified majors.
Prerequisite: PORT 9
Distributive: Dist:LIT; WCult:CI

PORT 25 - Advanced Portuguese Composition
Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

Intensive essay writing workshop with discussion focusing on Brazilian culture. Advanced grammar, sentence structure and word usage provide a framework for excellence in writing. Exercises are based on readings of materials from diverse sources in contemporary Brazilian culture, history, politics and current events. Credit for this course is awarded to students who have successfully completed the Dartmouth Foreign Study Program in Salvador, Brazil.

Prerequisite: Acceptance into the Dartmouth Foreign Study Program

PORT 35 - Advanced Studies in Brazilian Culture and Society
Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

A course in Brazilian culture and society taught in the context of the Foreign Studies Program. Lectures by local personnel concentrate on contemporary political, social, economic and religious institutions and issues and their historical background. Visits to sites supplement lectures when appropriate. Assigned work includes preparation of short papers, oral presentations and exams, assessed at the advanced level. Students will also write a research paper based on group visits requiring sessions additional to regular classes.

Prerequisite: Acceptance into the Dartmouth Foreign Study Program
Distributive: Dist:SOC; WCult:NW

PORT 36 - Studies in Contemporary Brazilian Literature
Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

This course explores trends in Brazilian literature from the 1960s to the present. Genres include novels, plays, short stories and poetry, as well as song lyrics of literary quality from various musical genres. Prominent themes include, but are not limited to, the socio-political experience of the dictatorship, urban and suburban life, and literature by women.

Prerequisite: Acceptance into the Dartmouth Foreign Study Program
Distributive: Dist:LIT; WCult:NW

PORT 60 - The Portuguese-Speaking World: Literature and Culture by Period
Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

This course focuses on the study of the most important historical periods and cultural movements affecting the Portuguese-speaking world. It is organized according to chronological eras that are marked by distinct cultural and literary movements. Areas covered are the Middle Ages, the culture of the Renaissance and the Baroque, the period of Explorations, Colonial period, Enlightenment and Modernity, Nineteenth-Century, Romanticism and Realism, the Avant-Gardes, Postmodernism, and new developments in the contemporary period. One or more periods may be selected for study.

Prerequisite: PORT 9
Distributive: Dist:LIT; WCult:W

PORT 61 - The Portuguese-Speaking World: Genre
Instructor: PORT 9 or permission of the instructor.
Distributive: Dist:LIT; WCult: NW

PORT 62 - Film Media, Performance, and the Arts in the Portuguese-Speaking World
Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

Film, television, the visual and graphic arts, and music have redefined national space and identity in the Portuguese-speaking world. Individual offerings of this course may focus on one or more of the following: film, television and the politics of mass media; theater, performance and performativity; festivals, popular and folk songs, comics and the graphic arts; sports and national identity. Students will become familiar with relevant concepts in analysis, theory, and cultural studies and learn how issues of representation in those cultural productions are linked to their literary counterparts.

Prerequisite: PORT 9 or permission of the instructor.
Distributive: ART

PORT 63 - Special Topics. Literary and Cultural Productions of the Portuguese-Speaking World
Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

This course is offered periodically with varying content so that writers, genres, historical contexts, or theoretical approaches not otherwise provided in the curriculum may be studied. The course can be offered any term and its distinct content, theoretical or methodological approach will depend on the interests of the instructor.
I. MAJORS AND THE MINOR OPEN TO THE CLASSES OF 2023 AND EARLIER

PORT 80 - Seminar

Instructor: Please see website @ https://spanport.dartmouth.edu/undergraduate/courses

This seminar is designed to provide students specializing in Portuguese studies with a small group setting that facilitates in-depth exploration of key aspects of the discipline. The seminar will encourage students to research and explore relevant topics related to the literature and arts of the Portuguese-speaking world and experiment with the application of the different concepts under discussion in new and creative ways (essay writing, short story writing, visual arts projects, performance pieces, etc.). This course may serve in satisfaction of the culminating experience requirement for Romance Language and modified majors with a concentration in Portuguese.

Prerequisite: PORT 9 or permission of the instructor.
Distributive: LIT

PORT 83 - Independent Reading and Research

A program of individual study directed by a member of the Spanish and Portuguese faculty. PORT 83 will normally consist of a program of reading and research that is not covered in regularly scheduled course offerings. After consultation with the faculty advisor of the project, all Independent Study proposals must be submitted for approval to the Department. Under normal circumstances, no student may receive credit for this course more than once. Students interested in pursuing an Independent Study must identify their topic and faculty advisor, and present a proposal to their faculty advisor and to the Department for approval no later than the seventh week of the term preceding the term they wish to undertake the Independent Study.

Prerequisite: PORT 9 or permission of the instructor.
Distributive: LIT

PORT 90 - Honors Course

Supervised independent research under the direction of a designated advisor. Honors students will normally elect this course as the first in the required sequence (90 and 91) for completion of the Honors Program. PORT 90 is intended to prepare the student for writing the Honors thesis, through readings in primary and secondary texts, theory and methodology. The course will include periodic written assignments and culminate in a final paper.

Prerequisite: Admission to the Honors Program.

PORT 91 - Honors Seminar

A prearranged program of study and research during any term of the senior year, on a tutorial basis, with individual faculty members (normally the thesis advisor). A thesis and public presentation are the expected culmination of the course.

Prerequisite: Prior admission to the Department's Honors Program; clear evidence of capability to perform honors level work, normally indicated by completion of PORT 90 with a grade of B+ or higher.

Student-Initiated Seminars

In 1976 the Executive Committee of the Faculty voted to introduce a system of student-initiated seminars.

Students may propose to the Faculty Committee on Instruction seminars on special topics. Student initiators solicit the sponsorship of one or more faculty members and develop a syllabus and formal structure for the proposed course in consultation with the sponsor(s). In sponsoring a student-initiated seminar, a faculty member commits to regular participation in the seminar and assumes responsibility for assigning grades in the course. After the course has been approved by the appropriate Divisional Council, the Committee on Instruction may then approve, for a single offering, a student-initiated seminar which will be carried as a regular course. This seminar may serve in partial fulfillment of the Distributive or World Culture Requirements by prior approval of the Divisional Council and the Committee on Instruction, and in potential partial satisfaction of major requirements when previously authorized by the department or program concerned. Preliminary proposals should be directed by the initiators to the Chair of the Committee on Instruction at least two terms in advance of the proposed term of offering.

Before considering approval of a seminar the Committee on Instruction will require a full account of the nature of the requested seminar, justification for offering it, and assurance of active faculty support, availability, and time. The maximum enrollment shall be sixteen and the minimum, six. At the end of a seminar the faculty member assigns grades in normal fashion.

Studio Art

Chair: Jay Hull


The Department of Studio Art offers all undergraduates the opportunity to take courses in studio art. Graduate students may enroll in courses not filled by undergraduates. Requirements for the major and minor are outlined below.

To view Studio Art courses, click here (p. 682).

Artist-In-Residence
Through endowments established in 1962, artists have resided at Dartmouth throughout the year. These professionals are actively involved in the making of their art on campus. They lecture on their work in and outside of the classroom and respond to student work on an individual and group basis.

Visiting Critics
Each term professional artists lecture on their work and critique student work. These visits present a serious model of involvement within the discipline. There can be as many as three visiting critics a term. Attendance at the talks of visiting artists is required of all students enrolled in a Studio Art course.

Enrollment
All courses are limited in size. Pre-enrollment via computer registration is encouraged. Studio Art courses are closed when they reach full enrollment, and remain closed even if students drop. If a course is closed during pre-enrollment, students are put on a bounce/wait list, and given priority when classes begin. Students must contact their course instructor for permission to enroll. If permission is granted, students receive notification via e-mail. They must then go to Banner Student and enroll. Students not enrolled when the term begins are encouraged to attend the first class to see if a space is available.

Studio Art courses are open only to Dartmouth students who are enrolled full-time in the College. This enrollment includes special undergraduates at Dartmouth on the Twelve-College Exchange. Graduate students may enroll, if there is space in the class, and they receive the instructor’s permission. No Studio Art course may be audited.

Requirements for the Major
The Studio Art major consists of 10 courses. The Department offers courses in architecture, drawing, painting, photography, printmaking and sculpture. Drawing I is prerequisite to Painting I and to upper level drawing and sculpture courses. There are no prerequisites for Drawing I, Photo I, Printmaking I, Architecture I, Sculpture I, or Special Topics.

Since class sizes are limited and enrollments are heavy, Drawing I should be completed as early as possible.

Additional requirements for the major: SART 16, SART 20, SART 25, SART 76, SART 77, one Art History course, and three of the following: SART 17, SART 21, SART 22, SART 23, SART 26, SART 27, SART 28, SART 29, SART 30, SART 31, SART 65, SART 66, SART 68, SART 71, SART 72, SART 73, SART 74, SART 75 or SART 90 (p. 689). Figure Drawing may substitute either for the Drawing II or Drawing III requirement for the major. Figure Sculpture may substitute either for the Sculpture II or III requirement for the major.

SART 76 and SART 77 serve as the culminating experience in the major. Students are strongly encouraged to complete at least 3 course levels in one area of focus before taking senior seminar. The Senior Seminar work will be evaluated by the Studio Art Department faculty and outside examiners. Participation in a senior exhibition is required part of the major.

Requirements for the Minor
Seven courses in Studio Art, with SART 15, SART 16, and SART 25 required. Four additional courses, two of which must be in any one of the following six areas: architecture, drawing, painting, photography, printmaking, or sculpture.

Honors Program
The Honors Program consists of a two-term course of study, completed during the class context of Senior Seminar I and II. To be eligible for the Honors Program, students must have achieved the following, by the end of junior year: a 3.4 average in all Studio Art Major courses; Drawing I and Drawing II; and three terms of study in a specific area of architecture, drawing, painting, photography, printmaking, sculpture (e.g., Sculpture I, Sculpture II, and Sculpture III). By the end of senior fall term, students must: have two professors who will advise them on their honors project throughout Senior Seminar; submit a typed proposal outlining their final project, along with 10 images of their work. Studio Art majors will be notified in writing of procedures for Honors. An honors thesis is required by the end of spring term. Honors, if granted, is bestowed at the end of spring term.

Transfer Credit
Transfer credit is considered for Studio Art majors with junior standing. Application for prior approval must be made by the first day of the Dartmouth term immediately preceding the first day of the intended transfer term. Prior to enrolling, discussion of the nature, content, and reason for taking the course should occur with the major advisor or Chair of the Department. The Department requires a portfolio review upon completion of the course. No more than two courses can be substituted for those required for the major.

SART - Studio Art Courses
To view Studio Art requirements, click here (p. 681).

SART 15 - Drawing I
Instructor: Park, Thompson, Riley, Wilson, Lee, Kawiaka, & Associates

In this introductory course, major and non-major students will explore the issues of mark, line, scale, space, light and composition. Students will develop a critical facility to discuss the work presented in class. Although the majority of work will be from the observed form, such as still life and the human figure, non-observational drawing will also be emphasized. Various kinds of media, including
charcoal, ink and pencil will be used. Supplemental course fee required. Enrollment limited.

Distributive: Dist:ART

SART 16 - Sculpture I
Instructor: Lee, Park, Ransom, Siegle, Fry, & Associates
This course emphasizes the creation and critique of sculpture. Three-dimensional design concepts and various elements of sculpture such as form, space, surface, and time, will be discussed. Students will develop an understanding of different materials and techniques in conjunction with the aesthetics of each medium. This course focuses on an individual approach to creative problem solving, with students developing skills and vocabulary to critique their own sculpture and the sculpture of others. Supplemental course fee required. Enrollment limited. No prerequisites.

Distributive: Dist:ART

SART 17.01 - Collage: Bridging the Gap
An exploration of the design and construction of imagery through the medium of collage. Students will work in mixed media collage materials from a variety of subject matter with a focus on the development of critical abilities and an individual esthetic. Assignments will make use of collage as a connection between two-dimensional and three-dimensional artwork, addressing collage work in relationship to drawing, painting, relief sculpture, photography and architecture.

Distributive: Dist:ART

SART 17.03 -
Cross-Listed as: FILM 48.01
Distributive: Dist:ART

SART 17.07 - THE PASSIONATE PURSUIT OF COLOR
Students in this course will explore the use of color as a language to construct and find meaning in a fully realized work of art that captures both internal and external realities. A variety of traditional as well as digital drawing media and techniques will be encouraged. Emphasis will be on testing the boundaries between the flat picture plane and the mysterious illusion of pictorial space, between sensuous details and the overall unity of each work of art.

No prerequisites required. Counts towards the major and may be substituted for Drawing II

Distributive: Dist:ART

SART 17.08 - Digital Drawing
Instructor: Kawiaka

This class will explore the connection of hand drawing and digital drawing to create original images. Students will explore the implications, opportunities and technical issues of using the computer as a drawing tool and combine computer-generated drawings with those done by hand. Drawings may combine layering, collaging and converting 3D form to 2D hand drawings using PhotoShop, Illustrator and Rhino software, among others. Supplemental course fee required. Enrollment limited.

Distributive: Dist:ART

SART 17.09 - The Photographer as Activist: Making Art Inspired by the Hood Museum's Collection
This course examines photography's evolving role as protagonist for raising awareness of important social and political issues of our time, such as war and its aftermath, the politics of gender and family, and the sustainable landscape. Meetings in the Bernstein Study Center will focus on the study of specific photographs and the processes and techniques employed; these explorations will form the basis for individual photographic projects, culminating in a creative portfolio or book. Students will develop a critical framework for the cultivation of visual literacy and the understanding of photography's importance as witness to human experience.

Distributive: Dist:ART

SART 17.11 - Embodied Magic: Drawing into Life
Embodied Magic: Drawing into Life
Starting from close observation, this class will explore possibilities for translating the wide and vibrant world into two-dimensional drawing and painting, and for translating two-dimensional works into sequential and moving images. We will investigate interrelationships between embodied magic, improvisation, disciplined daily practice, and finished work. Athletes, dancers, musicians, graphic designers, complete beginners, animators, fans of sequential art, and other assorted students from a variety of backgrounds and interests are welcome.

Distributive: Dist:ART

SART 17.12 - Art Practices Across Media
This course examines strategies used by artists who work across a range of media. We will start with a critical inquiry into theoretical and practical methods: how do ideas determine the choice of material and the shape they take? Further explorations will address the socio-political dimension of art-making and how it enables interventions and interruptions of the historical, cultural, and individual sphere. In the spirit of its subject, this class will ask students to utilize multiple media with the goal of visualizing the relation between material and concept.

Distributive: Dist:ART
SART 17.13 - Drawing with Van Gogh

Students learn to draw as Vincent Van Gogh did throughout various stages of his life, with similar instruction, purpose and drawing materials. The class will see and draw from the art that influenced him, work from subject matter similar to his, and experiment with his particular techniques. Students will copy a range of Van Gogh drawings, draw directly from life as he did, and read many of his extraordinary letters. At the end of the term, each student will develop a suite of drawings, embodying their own idea of how Van Gogh’s work might have further evolved. Supplemental course fee required. All levels of drawing experience welcome.

Distributive: Dist:ART

SART 17.14 - Reinventing Architecture: Design and Social Action

By thinking more broadly about the populations served and more expansively about collaborative initiatives, designers can take on an important role in addressing the significant challenges we face in a rapidly changing and developing world. This course will include a series of drawing/media/design assignments that will serve as concentrated exercises in the investigation of architectural and spatial concepts and projects for challenged communities on the local, national and international levels. A wide array of design tools will be utilized and students will work both individually and collaboratively with classmates. Course requirements will consist of the completion of drawing, model making and analysis assignments associated with each of the phases of the course. A substantial part of many class sessions will be dedicated to working on these assignments in the studio, thus attendance will be critical to the successful completion of the course. There will be a time commitment required outside of class to complete most assignments and additional assignments will also be made explicitly for completion outside of class. Field trips, site visits and visiting experts will be an integral component of the course.

Distributive: Dist:ART

SART 17.15 - 3D Design and Digital Fabrication

This course is an introduction to basic three dimensional design principles and the relationship between structure and space. Students will learn fundamentals of design ideologies to design and construct objects and structures that use cutting edge computer modeling and 3D fabrication processes to create forms ranging from everyday utilitarian objects to structures for specific sites on campus. Material investigations and problem solving skills to design innovative solutions to real world problems will be undertaken. Computer drawing and fabrication using the program Illustrator, and 3D modeling with Rhino, 3D Printers and CNC Routers will be taught and used. Students will develop skills needed to communicate design concepts and develop personal approaches to design as well as to construct them. The projects include forms based on aesthetic as utilitarian design.

Distributive: Dist:ART

SART 17.16 - Personal Iconography & the Public Debate: Text, Image and Form

This class will give students the chance to explore the relationship of what you want to say to how you say it in art, with a strong focus on combining image, text and material. How do text and image work together to create art that engages and demands its place in the public exchange of non-art related ideas? Making use of research students will work in the studio to realize their ideas. Students will make broadsides at the Book Arts Workshop in Baker-Berry, and create a public intervention at a place of their choosing. Supplemental course fee required. Enrollment is limited.

Distributive: Dist:ART

SART 17.17 - Art & Activism

This course will look at various international and domestic artists to examine how contemporary visual art can be a form of social activism.

Instead of working in one medium, students will have the opportunity to experiment with multiple media like drawing, painting, digital photography & collage, and video. The focus of the course will be on art practices in the context of social activism and its potential to interrupt conventions surrounding history, culture, identity and politics. In the spirit of its subject, students will utilize a range of media with the goal of visualizing the relation between medium and concept, art and thought, self and world.

Some of the questions we will be asking are: how do we identify issues and formulate questions in visual terms? What are the advantages and disadvantages, limitations and possibilities of each medium? How do we make aesthetic choices based on a particular subject? And to what extend do materials and artistic practices have an impact on our ideas? Supplemental course fee required

Distributive: Dist:ART

SART 17.18 - Cut and Paste Cinema

Using principles of both animation and editing, this course will explore the results of combination in cut and paste cinema in conjunction with the history of collage--from classic uses in painting, photomontage, architecture, and literature to contemporary functions via mash-ups, samples, and digital
manipulation. Through producing projects, screening
films, and
discussing readings, we will explore the varying
possibilities of forming new meanings via the pairing of
found elements.

Distributive: Dist:ART

SART 17.20 - Video Art
Instructor: Flanagan

This theory/practice studio course explores the medium of
video as an art form. Through a survey of historical and
contemporary works, students will examine how history,
access, culture and technological shifts have influenced
and changed how artists work with the moving image and
time-based media. From early portable video rigs and live
video to the use of animation, netart, streaming video, and
memes, the course will unpack role that film, video, sound,
writing, performance, abstraction, installation, structure,
streaming and narrative forms have played in their work.

Students create individual video projects to develop their
artistic voice and point of view; they engage with
properties that distinguish video art practices while
completing a series of creative experiments in order to
develop a personal media vocabulary. Students will use
video art to expand our understanding of time, space,
sound, representation, and narrative.

Cross-Listed as: FILM 48.02
Distributive: Dist:ART

SART 17.21 - Water In the Lake: Real Events for the
Imagination
Instructor: Mack

This class, based on the book Water in the lake: Real
Events for the Imagination (1979) by Kenneth Maue, fuses
cinema, the studio arts, sound, and theatre with the natural
landscape in an intense study of improvisation, collectivity,
and collaboration in conjunction with the
environment. Looking at religion, law, science, and
politics as a way to consider cinema, sound, land art, site
specificity, performance, and the unfolding of real time
events within the artistic context, we will gain the critical
capacity to understand intersections of cinema,
performance art, video art, land art, and sonic practice.

Through viewing films, listening to sounds, and studying
works of art spanning painting, sculpture, installation, site-
specific practice, and performance, we will inspire and
provide critical/historical contexts for your personal work
in the course.

Distributive: Dist:ART

SART 17.22 - On Earth: Art The Anthropocene
Instructor: Seely

The Anthropocene is a new geologic era that has been
defined as the present epoch in which the earth’s systems
and biodiversity are being slowly disrupted by the impact
of humans on the earth. This theory/practice, studio course
engages with contemporary art to explore creative
practices related to the topic. Through the production of
artworks students will investigate the profound role art and
design can play to address and expand current related
dialogues.

This course will explore what it mean to consider humans
as a geological agent and how artists and designers can
engage with the shifting perceptions of our surroundings.

Creative projects that are open to the use of a range of
media center on practical techniques that may include;
mapping, the production of data visualization, journaling,
and collaborative exercises. The course content builds
through interrelating topics such as: new understandings of
time, space, and scale; the concept of worlding; the use of
scientific data to interpret planetary systems; the influence
of the techno-sphere on human sensing and perceptions of
“the natural”, and a redefinition of kin in a posthumanist
era.

The course serves neither as a comprehensive study of the
Anthropocene nor as an art historical survey. It is instead
an introductory exploration into ways to consider the
Anthropocene in order to cultivate and reinforce new forms
of flexible creative and critical thinking.

Distributive: Dist:ART

SART 17.23 - Book Publication Lab

This special topics studio course will provide students an
opportunity to engage in research, conceptualization,
design thinking, and execution of collaborative print
projects. Strategies in design research, investigation, form-
making will all be discussed along with techniques in page
layout, typography for book and editorial layouts,
risography, zines, self-publishing, and bookmaking. It will
function as a creative laboratory, providing an opportunity
to be immersed in and mindful of a range of collaborative
creative processes. Through fast-paced exercises, readings,
and studio projects, students will develop skills to create
with others and test the boundaries of ways to give form to
new ideas and strategies to generate content. Outcomes
will include both digital and analog print methods. This
course is designed as an interdisciplinary exploration for
students in studio art and from other departments such as
english and creative writing, music, languages, and the
sciences. Supplemental course fee required. Enrollment
limited.

Distributive: Dist:ART

SART 20 - Drawing II
Instructor: Levant, Gardner, Caine
This course will reinforce drawing techniques and strategies learned in Drawing I with an emphasis on discipline and increased mastery. Personal development, critical thinking and the student's relationship to materials, subjects and techniques will be emphasized. Supplemental course fee required. Enrollment limited.

Prerequisite: SART 15.

Distributive: Dist:ART

SART 21 - Sculpture II

Instructor: Park

Sculpture II is an in-depth approach to the conceptual and physical aspects of making sculpture. Techniques such as woodworking and welding, along with the exploration of unconventional materials, will be used. Contemporary ideas involving installation, outdoor and site specific work will be explored in the cultural context of making sculpture today. Supplemental course fee required. Enrollment limited.

Prerequisite: SART 16 preferred

Distributive: Dist:ART

SART 22 - Figure Drawing

Instructor: Auten

A course based on drawing the human form. Most work will be done from direct observation. Attention will be paid to issues of mark, light, volume, space, and composition. Students will consider the complex relationship of perception, invention, and visual structure in the context of working from the figure. Supplemental course fee required. Enrollment limited.

Prerequisite: SART 15

Distributive: Dist:ART

SART 23 - Figure Sculpture

Instructor: Associates

Sculpture through direct observation, and learning to translate perceived form into sculptural form using the figure as subject is the emphasis of this class. Importance is placed on the fundamental sculptural principles of proportion, volume, and gesture, along with the relationship between the physical and psychological aspects of the human form and its contextual presentation. Modeling directly in clay, as well as plaster casts, and other additive processes and materials will be explored. Supplemental course fee required. Enrollment limited.

Distributive: Dist:ART

SART 25 - Painting I

Instructor: Riley, Witkowski, Levant, Ferrara

Painting I is an introductory class in oil painting techniques, painting language, and critical thinking. Major topics that will be covered include: basic color theory, color mixing, paint application, and color composition. A variety of subjects such as still life, non-observational invention, and the human figure will be emphasized. Supplemental course fee required. Enrollment limited.

Prerequisite: SART 15

Distributive: Dist:ART

SART 26 - Printmaking I: Lithography

Lithography. An introduction to lithographic techniques, using stones and metal plates, b/w and color printing. Class sessions will consist of demonstrations, critiques, individual instruction, and work periods. Students will also see original prints by master artists (past and present) in the outstanding collection of Dartmouth's Hood Museum. This course may be repeated for credit by permission of the Chair. Supplemental course fee required. Enrollment limited.

Distributive: Dist:ART

SART 27 - Printmaking I

Instructor: Treacy, Caine

The course offers an introduction to the technical fundamentals in print media focusing on some of the following: etching, stencil printing (screen printing and/or risography), relief, monoprinting, as well as zine and artist books. Processes vary based on subtitle and explore a range of materials which may include wood, linoleum, copper, pronto plates, photopolymer, and acrylic plates to be printed in multiples and/or as unique variations. The course expands a student's capacity for developing images through two-dimensional design and conceptual processes. We will examine historical and contemporary printmaking results (using the Hood Museum and Rauner’s outstanding collections), while exploring methods of making and experimenting with analog and digital print formats. This course asks students to consider printmaking in a contemporary context through technique and discussion. You will be encouraged to discover new methods of practice, including collaborative work, unfamiliar materials, and a hybridity of tools/processes. Printmaking is a unique intersection of Painting, Drawing, Sculpture, Photography, Architecture and Visual Communication. Supplemental course fee required. Enrollment limited.

Distributive: Dist:ART

SART 28 - Printmaking II

Instructor: Treacy, Caine

The intermediate course in print media offers an intensive exploration of printmaking methods. Print media provides a mode to visually communicate personal, political and conceptual themes. Students will concentrate on an
advanced level on two or more printmaking processes, which may include etching, screen printing, relief, monoprinting, risography, and/or artist books. Students will be encouraged to discover new methods of practice, collaboration, and a hybridity of tools/processes. Students will hone technical skills and craft through experimentation, developing a body of both process and refined work. Discussions will address the expansive nature of contemporary fine art printmaking. Students develop individual portfolios. Supplemental course fee required. Enrollment limited.

Prerequisite: SART 26 or SART 27. Supplemental course fee required. Enrollment limited.

Distributive: Dist:ART

SART 29 - Photography I - The Intentional Photograph
Instructor: Beahan & Associates

With a focus on building an artistic voice, this class is an introduction to photographic methods, theory, and ideas that emphasize the creative possibilities of digital photographic technologies. Studio emphasis is on digital workflow from camera input and digital darkroom editing, to final-screen based output. Throughout the term, students will investigate how to hone a sense of intentionality through every step of creating, editing and sharing photographs to find their creative voice. Using a digital SLR camera kit and complimentary digital tools, students will address essential technical, conceptual, and artistic problems associated with the medium and inevitably build a deeper sense of self through the mindful construction of each step of the creative process.

Through assignments, guest artists, lectures, reading discussions, and critiques, students will develop the ability to think and participate in critical contemporary art discourse regarding images and image-making. At a time when photography’s popularity and ubiquity have challenged its relevance as a fine art form, this course will explore the photographic image as a powerful and versatile tool for contemporary artistic self-expression. Enrollment limited. Supplemental course fee required.

Distributive: Dist:ART

SART 30 - Photography II - The Nature of Photography
Instructor: Seely, Beahan

This intermediate studio course deconstructs the complexity of the contemporary photographic world. The course is an investigation into the aesthetic and theoretical implications of digital photography and the underlying principles, languages, and tools of photographic media. Assignments, visiting artists, lectures, reading discussions, and critiques will interrelate to inform the development of the individual voice of each student. We will investigate the memetic and fragmenting qualities of photography, the existential implications of what it means to use the medium to stop time, the power of imaging aesthetics to seduce and activate the viewer, the photograph as data and evidence, all with an emphasis on how perspective (cultural/societal background) and context (from a social media feed to a museum wall) inform the impact a photograph can have on a range of audience(s). Technical emphasis is centered on; digital workflow from camera input and digital darkroom editing, to final screen-based output (the projection, a digital monitor, the activated presentation, the moving still, etc…). We will also work collectively on a book project. Throughout the course, students will simultaneously hone their critical thinking and technical skills and examine the evolving nuances of broader image culture in line with contemporary art world trends, all in order to develop their photographic voice and the ability to think and participate in critical contemporary art discourse. Enrollment limited. Supplemental course fee required.

Prerequisite: SART 29.

Distributive: Dist:ART

SART 31 - Painting II
Instructor: Randall, Ferrara, Caine

This class is a continuation of Painting I. Students will be exposed to more complex ideas about color including color as emotion, impression, and construction. More distinction will be made between indirect and direct painting techniques. Students will also begin to form a personal relationship with the formal choices they wish to address. Supplemental course fee required. Enrollment limited.

Prerequisite: SART 25

Distributive: Dist:ART

SART 65 - Architecture I
Instructor: Toloudi, Kawiaka, Wilson

A disciplined development of skills needed to communicate architectural ideas. Factors such as climate, site, orientation, program, materials, and structure are studied in the process of designing structures and buildings. The course will concentrate on developing student ability to translate architectural concepts into two-dimensional and three-dimensional representations. Free-hand drawing, the use of architectural drafting tools, and model making will be emphasized. Along with more traditional media, the computer will also be used as a design and communications tool. Supplemental course fee required. Enrollment limited.

Distributive: Dist:ART

SART 66 - Architecture II
Instructor: Toloudi

Students will continue the study of architectural design by exploring the organization of space, manipulation of light,
and the experience of time in the creation of architecture. Experimentation in the language and vocabulary of architecture, as expressed through drawings, models, and the digital media will be emphasized. Contextual, cultural, economic, and technological conditions will be discussed in relationship to designs. Review of student work will take the form of presentations made to the class and guest critics. Supplemental course fee required. Enrollment limited.

Prerequisite: SART 65. Supplemental course fee required.

Distributive: Dist:ART

SART 68 - Architecture III
Instructor: Toloudi

As an extension of Intermediate Architecture, this course will offer advanced students the opportunity to explore architectural design issues in more depth. Students will use analytical and expressive skills developed in previous coursework to undertake more complex and thorough investigations in architecture. Can be repeated for credit. Supplemental course fee required. Enrollment limited.

Prerequisite: SART 66.

Distributive: Dist:ART

SART 71 - Drawing III
Instructor: Levant, Gardner, Caine

In this course, students will develop a personal voice through the language of drawing. Commitment and discipline are mandatory and expected, commensurate with students' increased responsibility in shaping their trajectory of learning. Contemporary issues and materials will take an increased role in informing the students' decisions. Critical thinking and decision-making will be emphasized. Observational drawing, abstraction, figuration and more unconventional techniques are all open to students.

Supplemental course fee required. Enrollment limited.

Prerequisite: SART 20.

Distributive: Dist:ART

SART 72 - Painting III
Instructor: Randall, Caine, Ferrara

In this course, students will develop a cohesive body of work that addresses their aesthetic and subjective concerns. More attention will be given to contemporary artists and contemporary painting strategies and techniques. Commitment and discipline are mandatory and expected, commensurate with students' increased role in shaping their course of study. Critical thinking and decision-making will be stressed, as well as awareness of the contemporary dialogue in painting. Supplemental course fee required. Enrollment limited.

Prerequisite: SART 31

Distributive: Dist:ART

SART 73 - Sculpture III
Instructor: Park

This course focuses on advanced problems in sculpture, with an emphasis on the development of a personal language. Individual growth through self-examination and self-discipline will be encouraged. Contemporary issues, as well as the history of sculpture will be discussed. Students are expected to develop a strong work ethic in the studio. Supplemental course fee required. Enrollment limited.

Prerequisite: SART 21

Distributive: Dist:ART

SART 74 - Printmaking III
Instructor: Treacy, Caine

The advanced course in print media will be self-directed based on the students interests and offers an intensive inquiry of printmaking methods and visual narratives. This is an opportunity for experimentation and risk-taking with materials and tools, a refinement of printmaking applications while adding further research and concept exploration to develop a personal voice. Work will be presented in both installation and portfolio platforms. Discussions will address the expansive nature of contemporary fine art printmaking. Students develop individual portfolios. Supplemental course fee required. Enrollment limited.

Prerequisite: SART 28. Supplemental course fee required.

Distributive: Dist:ART

SART 75 - Photography III - Contemporary Photography & Research
Instructor: Seely

While interwoven with Photography 2, the emphasis of this course is on building an increasingly independent artistic-research practice with focused critiques and individualized assignments. It will center around a single self-driven problem that will constitute the term's work. The student will have the opportunity to concentrate on one subject, to investigate new techniques of photographic craft, hone critique and critical thinking skills, and to employ the camera as a means toward the making of a personal, creative statement. Enrollment limited. Supplemental course fee required.

Prerequisite: SART 30.

Distributive: Dist:ART

SART 76 - Senior Seminar I
Instructor: Auten, Riley

The first half of the two-term culminating experience in Studio Art. The seminar is devoted to developing critical
skills and a body of work predicated upon a student's ability to conceive, structure, sustain, and resolve an individual course of study in painting, drawing, printmaking, sculpture, photography, or architecture. Work will be reviewed by the faculty and an outside examiner. Supplemental course fee required.

Distributive: Dist:ART

SART 77 - Senior Seminar II
Instructor: Park, Treacy
A continuation of SART 76, with the additional expectation that each student will present at the conclusion of the term the body of work that will be his/her thesis. The thesis must be judged by the Studio Art faculty to be technically and aesthetically sound. From this work a selection will be made for the senior exhibition. Continuous individual and group critiques will be given of student work by the principal instructor, department faculty, and visiting artists. Supplemental course fee required.

Prerequisite: SART 76.
Distributive: Dist:ART

SART 90 - Independent Study
Instructor: Associates
Students who have completed all levels of instruction within a given area may propose and carry out an independent project in that area. This project must be supported and supervised by a faculty member. The project proposal must be submitted in writing and approved by the Chair. Supplemental course fee required.

Distributive: Dist:ART

Theater
Chair: Dan J. Kotlowitz
Professors T.P. Hackett, D.J. Kotlowitz, L. Edmondson; Associate Professors L. Churba, M.J. Ganio; J.M. Horton, M.W. Ndounou, M.B. Sabinson, A. Santana (affiliated); Visiting Professor W.P. Chin; Senior Lecturers C. Dunne, J.G. Rice; Lecturers K. Coughlin, K. Cunneen, M. Evans, J. Havard, J. Heginbotham, C. Kohn, S.Lazar, L. Padilla, B. Parry, J. Merwin, R. Stenn.

To view Theater courses, click here (p. 694).

The Major
The Theater major at Dartmouth College seeks to facilitate and integrate the creative, critical, and historical study of theater as a performing art. To that end, the major includes a range of interdisciplinary courses in theater studies (the history, criticism, and theory of theater and performance) as well as theater practice (acting, directing, design, dance, stage management, technical production, and playwriting). Majors may concentrate their studies in one area, such as acting, or pursue a multifaceted course of study in consultation with their major advisor. In addition to coursework, majors are expected to be involved in department productions as described below, under "production requirements."

Requirements
Ten major courses, as enumerated within the following categories:

1. Five courses in Theater Studies:
   a. The following three courses in the Theater History Sequence are required:
      THEA 15: Theater and Society I: Classical and Medieval Performance
      THEA 16: Theater and Society II: Early Modern Performance
      THEA 17: Theater and Society III: 19th and 20th Century Performance
   b. Any two of the following Theater Studies courses:
      THEA 1: Introduction to Theater*
      THEA 10: Special Topics courses, with approval of the Chair
      THEA 12/CLST 2: The Tragedy and Comedy of Greece and Rome
      THEA 18/RUSS 18: Russian Theater
      THEA 19/COLT 34: Human Rights and Performance
      THEA 21/WGSS 59: Race, Gender, and Performance
      THEA 22/AAAS 31: Black Theater, U.S.A.
      THEA 23/AAAS 54: Postcolonial African Drama
      THEA 24/ASCL 70.07: Asian Performance Traditions
      THEA 80: Independent Study, with approval of the Chair

   *THEA 1 satisfies the Theater Studies course fulfillment only if it is completed before THEA 15, 16, and 17.
   **THEA 25: Solo Performance may be used to fulfill either a Theater Studies or Theater Practice requirement, but not both.

   With prior approval of the Chair, up to one course in Theater Studies from another department may be used to fulfill this category, such as:
   ENGL 15: Shakespeare I
   ENGL 34: American Drama
   ENGL 39: Modern British Drama

2. Four courses in Theater Practice:
a. The following course is required:
THEA 40: Technical Production

b. Any one of the following courses in Theater Performance:
THEA 10: Special Topics courses, with approval of the Chair
THEA 25: Solo Performance**
THEA 26: Movement Fundamentals I
THEA 27: Movement Fundamentals II
THEA 28: Dance Composition
THEA 29: Dance Theater Performance
THEA 30: Acting I
THEA 31: Acting II
THEA 35: Acting for Musical Theater
THEA 36: The Speaking Voice for the Stage
THEA 50: Playwriting I
THEA 51: Playwriting II
THEA 54: Directing
THEA 60: Classical Performance I (FSP)
THEA 61: Classical Performance II (FSP)
THEA 65: Summer Theater Lab
THEA 80: Independent Study, with approval of the Chair

**THEA 25: Solo Performance may be used to fulfill either a Theater Studies or Theater Practice requirement, but not both.

c. Any one of the following courses in Theater Design or Management:
THEA 10: Special Topics courses, with approval of the Chair
THEA 41: Stage Management
THEA 42: Scene Design
THEA 44: Lighting Design
THEA 48: Costume Design
THEA 80: Independent Study, with approval of the Chair

d. One additional Theater Practice course, either in Performance, Design, or Management.

3. The Culminating Experience:
In their final year, all majors must complete the following course to satisfy their Culminating Experience in Theater:
THEA 90: Contemporary Theater Practice

4. Production Requirements:
Every Theater major is expected to complete five production credits to demonstrate an active and sustained participation in theater production. Production credits require faculty supervision and may be completed on either Department of Theater productions or productions sponsored by the Department. Production credits must reflect a variety of theater activity and each credit must represent a meaningful practical experience. No more than two production credits may be in a single area of production.

- One production credit must be fulfilled by THEA 40: Technical Production.
- One production credit must be fulfilled by serving as a stage manager or assistant stage manager for a MainStage production. Alternatively, the student may complete THEA 41: Stage Management to fulfill this requirement. With prior approval of the Director of Theater, stage management on a student production may fulfill this requirement.
- One production credit must be fulfilled by serving on a production crew.
- Two production credits may be fulfilled with any category of theater production. This includes:
  - certain courses with a production component, such as THEA 44 (p. 700) or THEA 65 (p. 701)
  - acting in productions
  - participation in a production crew
  - stage management
  - designing
  - playwriting, when the script is produced under the sponsorship of the Department
  - dramaturgy

The Modified Major
A student who wishes to combine the study of theater with a related field may apply to the Department for a modified major. Such a program shall contain eight courses from the Theater major and four courses beyond prerequisites in a single field (only) outside of the Department of Theater. Theater modified majors must receive approval from the secondary department or program. Students are required to submit a detailed rationale that explains how the twelve (or more) courses across the two departments cohere into a unified plan of study. In rare instances, the department will consider a theater major that is modified with more than one field; proposals for such modified majors must be approved by the department faculty.

In addition to coursework, modified majors are expected to be involved in department productions as described below under "production requirements."

Requirements
Eight major courses, including those enumerated within the following categories:

1. Three courses in Theater Studies:
a. Two courses from the Theater History Sequence:
THEA 15: Theater and Society I: Classical and Medieval Performance
THEA 16: Theater and Society II: Early Modern Performance
THEA 17: Theater and Society III: 19th and 20th Century Performance

b. One course from the following:
   THEA 1: Introduction to Theater*
   THEA 10: Special Topics courses, with approval of the Chair
   THEA 12/CLST 2: The Tragedy and Comedy of Greece and Rome
   THEA 18/RUSS 18 Russian Theater
   THEA 19/COLT 34: Human Rights and Performance
   THEA 21/WGSS 59: Race, Gender, and Performance
   THEA 22/AAAS 31: Black Theater, U.S.A.
   THEA 23/AAAS 54: Postcolonial African Drama
   THEA 24/ASCL 70.07: Asian Performance Traditions
   THEA 25: Solo Performance**
   THEA 62: Plays in Performance: Perception, and Analysis (FSP)
   THEA 80: Independent Study, with approval of the Chair

   *THEA 1 satisfies the Theater Studies course fulfillment only if it is completed before THEA 15, 16, and 17.
   **THEA 25: Solo Performance may be used to fulfill either a Theater Studies or Theater Practice requirement, but not both.

With prior approval of the Chair, up to one course in Theater Studies from another department may be used to fulfill this category, such as:
ENGL 15: Shakespeare I
ENGL 34: American Drama
ENGL 39: Modern British Drama

2. Three courses in Theater Practice:

a. The following course is required:
   THEA 40: Technical Production

b. Any one of the following courses in Theater Performance:
   THEA 10: Special Topics courses, with approval of the Chair
   THEA 25: Solo Performance**
   THEA 26: Movement Fundamentals I
   THEA 27: Movement Fundamentals II
   THEA 28: Dance Composition
   THEA 29: Dance Theater Performance
   THEA 30: Acting I
   THEA 31: Acting II
   THEA 35: Acting for Musical Theater
   THEA 36: The Speaking Voice for the Stage
   THEA 50: Playwriting I
   THEA 51: Playwriting II
   THEA 54: Directing
   THEA 60: Classical Performance I (FSP)
   THEA 61: Classical Performance II (FSP)
   THEA 65: Summer Theater Lab
   THEA 80: Independent Study, with approval of the Chair
   **THEA 25: Solo Performance may be used to fulfill either a Theater Studies or Theater Practice requirement, but not both.

c. Any one of the following courses in Theater Design or Management:
   THEA 10: Special Topics courses, with approval of the Chair
   THEA 41: Stage Management
   THEA 42: Scene Design
   THEA 44: Lighting Design
   THEA 48: Costume Design
   THEA 80: Independent Study, with approval of the Chair

3. The Culminating Experience:
In their final year, all modified majors must complete the following course to satisfy their Culminating Experience in Theater:
THEA 90: Contemporary Theater Practice

4. One additional theater course, in any category, with approval of the Chair

5. Production Requirements:
Every modified Theater major is expected to complete four production credits to demonstrate an active and sustained participation in theater production. Production credits may be completed on either Department of Theater productions or productions sponsored by the Department, and require faculty supervision. Production credits must reflect a variety of theater activity and each credit must represent a meaningful practical experience.

- One production credit must be fulfilled by THEA 40: Technical Production.
- One production credit must be fulfilled by serving as a stage manager or assistant stage manager for a MainStage production. Alternatively, the student may complete THEA 41: Stage Management to fulfill this requirement. With prior approval of the Director of Theater, stage management on a student production may fulfill this requirement.
- One production credit must be fulfilled by serving on a production crew.
• One production credit may be fulfilled with any category of theater production. This includes:
  • certain courses with a production component, such as THEA 44 or THEA 65
  • acting in productions
  • participation in a production crew
  • stage management
  • directing
  • designing
  • playwriting, when the script is produced under the sponsorship of the Department
  • dramaturgy

Modifying another Major with Theater
Students wishing to modify another major with Theater must take four courses:
• one Theater Studies course (THEA 1, 12, 15, 16, 17, 18, 19, 21, 22, 23, 24, 62)
• one Theater Performance course (THEA 26, 27, 28, 29, 30, 31, 35, 36, 50, 51, 54, 60, 61, 65)
• one Theater Production, Design, or Management course (THEA 40, 41, 42, 44, 48)
• one elective from any of these categories
THEA 10, THEA 80, THEA 25, and additional courses are eligible for the fulfillment of these requirements upon approval of the chair. Students must file a detailed rationale for the modified major that justifies each of the four theater courses.

Production Requirements:
Students who are modifying with theater are also required to fulfill one production credit in consultation with the Chair or the Director of Theater.

The Minor
In addition to coursework, minors are expected to be involved in department productions as described below under "production requirements."

Requirements

Six minor courses, as enumerated within the following categories:

1. One course from the Theater History Sequence:
   THEA 15: Theater and Society I: Classical and Medieval Performance
   THEA 16: Theater and Society II: Early Modern Performance
   THEA 17: Theater and Society III: 19th and 20th Century Performance

2. The following course in Theater Production:
   THEA 40: Technical Production

3. Four additional Theater courses:
The other four courses of the minor shall include no more than one THEA 80: Independent Study and no more than one course outside of the Department that would normally be accepted for the major.

4. Production Requirements:
Every Theater minor is expected to complete three production credits to demonstrate an active and sustained participation in theater production. Production credits may be completed on either Department of Theater productions or productions sponsored by the Department, and require faculty supervision. Production credits must reflect a variety of theater activity, and each credit must represent a meaningful practical experience.

• One production credit must be fulfilled by THEA 40: Technical Production.
• Two production credits may be fulfilled with any two categories of theater production. This includes:
  • certain courses with a production component, such as THEA 44 or THEA 65
  • acting in productions
  • participation in a production crew
  • stage management*
  • directing
  • designing
  • playwriting, when the script is produced under the sponsorship of the Department
  • dramaturgy

*Production credits may be fulfilled by serving as a stage manager or assistant stage manager for a MainStage production. Alternatively, the student may complete THEA 41: Stage Management to fulfill a stage management
production credit. With prior approval of the Director of Theater, stage management on a student production may fulfill this kind of production credit.

The Culminating Experience
All Theater majors and modified Theater majors must complete the course THEA 90: Contemporary Theater Practice to satisfy their Culminating Experience in Theater during their final year of study. Theater minors and other majors modifying with Theater will complete their Culminating Experience in their primary departments. Double majors must complete Culminating Experiences in both majors.

Transfer Credit
Every course taken for transfer credit in Theater must be approved prior to enrollment by the Chair of the Department, upon review of a detailed course description and syllabus. Three courses taken at other institutions may be substituted in fulfillment of the major or minor requirements, provided that the courses are equivalent to Department courses and the program as a whole is consistent with the intent of the major or minor. Of the three transferred courses, no more than two may be in dramatic literature, history, and criticism (#1 above under "Requirements for the Major"); no more than two courses may be in theater practice (#2 above under "Requirements for the Major").

Honors Program
An honors thesis in the Department of Theater provides an opportunity to deepen skills and knowledge in an area in which the student has already demonstrated the ability to produce distinguished work. Students who have completed at least five major courses and who have an average in the major of 3.4 or higher (and a College average of 3.0 or higher) are eligible to apply for the Honors Program. Students with modified as well as standard majors may apply. An Honors project normally extends through two terms and receives two major credits. Possible honors projects include:

- A written academic thesis
- An original full-length play with a supporting paper
- A realized production (full produced, workshop, or Studio Lab) with a supporting paper
- A design project with a supporting paper

Honors theses that are primarily creative in scope will include an academic component, which will typically consist of a reflective and analytical essay, approximately 15-18 pages in length. All thesis students will also produce a bound document for the Rauner library that includes the essay as well as additional documentation of the honors thesis project, as determined in consultation with the thesis advisor.

Students must submit a preliminary proposal to an advisor and the Chair of the Department by mid-May of their junior year; the due date for a final proposal will be determined at that time. Final proposals must be approved by the Department. Proposals will be evaluated based on originality and depth of the project, the quality of the proposal, and the student’s prior record of accomplishment. The student's educational goals will also be balanced with available department resources. Students who prepare for an Honors project by pursuing approved courses of advanced independent study may, with approval of the Department, be allowed to complete the project (thesis) in one term. Students in the Honors Program must complete the full curriculum required of a major or modified major; the honors credits are in addition to the ten-course major. Students may complete the ten-course major simultaneously with the Honors thesis: the ten-course major does not necessarily have to be completed before the honors work has begun. For additional information, students should consult with the Chair of the Department of Theater.

Foreign Study Program

The Theater Foreign Study Program offers students the opportunity to combine Theater Studies and professional practice in theater at the London Academy of Music and Dramatic Art, one of the world’s great conservatories. The program is a unique chance for students to develop their craft while taking advantage of London’s incomparable theatrical tradition and vibrant cultural scene.

Prior to participating in the Theater Foreign Study Program, the following prerequisites must be completed:

1. One course from the Theater History Sequence:
   THEA 15: Theater and Society I: Classical and Medieval Performance
   THEA 16: Theater and Society II: Early Modern Performance
   THEA 17: Theater and Society III: 19th and 20th Century Performance

2. One course in Theater Practice in either performance, design, or management from among the following courses:
   Performance
   THEA 10: Special Topics courses, with approval of the Chair
THEA 25: Solo Performance
THEA 26: Movement Fundamentals I
THEA 27: Movement Fundamentals II
THEA 28: Dance Composition
THEA 29: Dance Theater Performance
THEA 30: Acting I
THEA 31: Acting II
THEA 35: Acting for Musical Theater
THEA 36: The Speaking Voice for the Stage
THEA 50: Playwriting I
THEA 51: Playwriting II
THEA 54: Directing
THEA 65: Summer Theater Lab
THEA 80: Independent Study, with approval of the Chair

Design or Management

THEA 10: Special Topics courses, with approval of the Chair
THEA 40: Technical Production
THEA 41: Stage Management
THEA 42: Scene Design
THEA 44: Lighting Design
THEA 48: Costume Design
THEA 80: Independent Study, with approval of the Chair

The typical British conservatory experience is designed for students interested in acting, directing, playwriting, design, stage management, dramaturgy, or criticism.

All FSP students will be enrolled in three courses:

THEA 60 : Classical Performance I
THEA 61 : Classical Performance II
THEA 62 : Plays in Performance: Perception and Analysis

THEA 60 and THEA 61 will be taught by instructors from the London Academy of Music and Dramatic Art. THEA 62: Plays in Performance: Perception and Analysis will be taught by the Dartmouth instructor and involves attending an average of two to three productions per week and participating in a weekly seminar. In addition to the many London theaters, including the Royal Shakespeare Company and National Theatre, students will have full access to London’s cultural resources in music, dance, film, and museums. When practical, field trips to historical sites of theatrical interest and backstage tours of theater facilities will be scheduled.

For additional information regarding enrollment and prerequisites, please consult the Off-Campus Academic Programs booklet.

THEA - Theater Courses

To view Theater requirements, click here (p. 689).

THEA 1 - Introduction to Theater
Instructor: Santana
As a set of staged practices rich with social context, theater has sought to document, engage, and affect communities. This course introduces and explores theater from page to stage as a live performing art. Topics include the relationship between theater and society (historical and contemporary), dramatic structure, theatrical representation, and the crafts of theater artists such as directors, designers, playwrights, and actors. We will also engage with live performances and video archives of past performances.

Distributive: ART

THEA 7 - First-Year Seminars in Theater
Instructor: Sabinson
Consult special listings.

THEA 10.08 - Creativity and Collaboration
Instructor: Evans & Kotlowitz
Creativity and collaboration are concepts found in all disciplines and regularly requested, although rarely taught. In this course, students will have the opportunity to develop creative abilities through experiences in performance-based arts, and apply these in a collaborative project. Faculty artists active in movement and theater design will teach the course, which is open to students with no performance experience, as well as those looking for a new approach to existing skills.

Distributive: Dist:ART

THEA 10.25 - Music, Design, and Creativity
Instructor: Ganio
This introductory class breaks new ground by making music, rather than text, the driving force behind design for the performing arts. After being introduced to the principles of design, students will create visual artworks inspired by personal responses to specific pieces of music. Students will then create designs specific to dance, concert design, musical theatre, and opera. Various forms of idea-sharing will be taught, including collage, sketching, rough modeling, and painting. No previous experience required.

Distributive: Dist:ART

THEA 10.26 - Sound Design
Instructor: Ganio
The purpose of this course is to develop our listening skills. To broaden our understanding of music and noise and how to talk about them. To investigate how sound
works with both text and movement. To understand how sound can create context, tension, release, and surprise. To explore designing collaboratively. Projects include creating soundscapes and scoring short works.

Cross-Listed as: MUS 027
Distributive: Dist:ART

THEA 10.27 - Latinx Stage and Screen
Instructor: Garcia

This course will examine the Latinx stage and screen, focusing specifically on musicals that portray Latinx lives. We will focus on canonical works—including West Side Story, Zoot Suit, and Hamilton—in order to deepen our knowledge of their form, production history, historical reception, and contemporary place in American culture. We will take an interdisciplinary approach, drawing our reading assignments from the fields of Ethnic Studies, American Studies, Performance Studies, and Film and Media Studies, in order to analyze these productions as they traveled from stage to screen (and sometimes, back to the stage) and the representational and cultural politics involved in that shift. Finally, we will explore not only the musicals themselves, but also the historiography that has informed our understanding of them. Writing assignments will ask the students to reflect on the evolution of scholarly arguments regarding these canonical works.

Cross-Listed as: FILM 47.29 LACS 24.30
Distributive: Dist:SOC; WCult:NW

THEA 10.28 - Emerging Musical Theater
Instructor: Alvarez

A musical tells a story with words and music. Beyond those basic parameters, any limitations around what a musical can and cannot be are up for debate. This multi-disciplinary class is open to composers, lyricists, songwriters, playwrights, directors, actors, singers, dancers, poets and musicians of any background. The objective is to investigate the form of the musical through the lens of sonic arts. In addition to looking at the past present and future of American musical theater we will engage a broad exploration musical storytelling, across many aesthetic sensibilities and time periods. The class requires weekly creative output in addition to reading and listening outside of class. Students must be willing to work across the boundaries of their own disciplines to generate lyrics, melodies and scenes. The class will establish a generous inter-disciplinary working environment which values creative risks, collaboration and inventiveness.

Cross-Listed as: MUS 27.01
Distributive: Dist:ART

THEA 10.29 - Text Analysis: Tools for Interpretation
Instructor: Hackett

A dramatic text is like a musical score. In order to understand a play, a theater artist must first learn to “read music.” This course will focus on the tools that allow an artist to understand the dramatic “score” and ultimately to translate the playwright’s words into action on stage. The playwright’s tools: Style, Setting, Mood, Theme, Environment, Character, Language, Action, Objective, Obstacles, will be defined and discussed. The reading list will include plays by Henrik Ibsen, August Strindberg, Katori Hall, William Shakespeare, Lynn Nottage, Caryl Churchill, and others. This course is relevant for all theater artists regardless of area of specialization.

Distributive: Dist:ART

THEA 10.30 - Theater of Ideas: Britain and France
Instructor: Kritzman

An exploration of the main intellectual movements, dramatic forms, and playwrights that shaped the evolution of British and French theatre in the post war period. Particular attention given to modern drama history, theory, and performance and how they relate to the wider social and political context. Writers drawn from some of the following: Osborne, Pinter, Stoppard, Churchill, Hare, Bennett ,Ravenhill, Sartre, Beckett, Genet, Cixous and Mnouchkine, Koltes, Reza, and Ndiaye.

Cross-Listed as: COLT 34.01
Distributive: Dist:LIT; WCult:W

THEA 10.32 - Acting for Musical Theater II
Instructor: Dunne

This course is a continuation of the study of Musical Theater, building on the curriculum of Acting for Musical Theater I. The class will further the student’s technique in building character for this genre from various periods and styles. Acting techniques using American Musical Theater of the 1930s through the 1950s will be studied, as well as voice and speech techniques for Shakespearean texts. The course will culminate in a staged reading of scenes from a contemporary musical(s), performed before an invited audience.

Prerequisite: THEA 35; equivalent experience may be considered. Instructor permission is required; contact instructor for details.

Distributive: Dist:ART

THEA 10.45 - Arab Theatre
Instructor: Morsi

This class is a survey of the main trends and themes in Arab theatre from the mid-19th century to contemporary times. Students will be introduced to some of the main
playwrights, actors and directors who helped define the art in the Arab world over the last century and a half.

Cross-Listed as: ARAB 81.04
Distributive: Dist:ART; WCult:NW

THEA 10.51 - Black Theatre & Storytelling Workshop in XR: Reimagining The Purple Flower (1928)
Instructor: Ndounou

Recognizing the intrinsic value of Black lives and Black storytelling across media platforms, this course will explore the staging of Black theatre texts in virtual reality (VR) and related XR technology. Participants will explore VR technology at the intersection of Black cultural storytelling through the performance of monologues and scenes as well as design/tech, music and movement culminating into a pilot production of Marita Bonner’s *The Purple Flower* (1928), a non-realistic, one-act play that pushes the boundaries of theatrical staging. No prior experience or pre-requisites required.

Cross-Listed as: AAAS 31.90 FILM 49.02
Distributive: Dist:ART; WCult:CI

Instructor: Ndounou

This course is designed for those interested in theatre and performance, African American studies, history, and culture. Students will study influences on the development of black theater and performance in the USA as well as processes for preserving, curating, and exhibiting culture in institutions, examining how museum concepts intersect and/or collide with representations of black history and culture. In collaboration with the Hattiloo Theatre in Memphis and the DeVos Institute of Arts Management, who are drafting plans for an institution devoted to black theatre practitioners, students will determine and develop content for an interactive venue. They will consider strategies for the use of technology and live exhibits, involving black communities in exhibits and curation, and providing access to diverse communities. Projects and findings will be shared with the institution’s developers and will be considered in their ongoing plans. The course will include a visit to the National Museum of African American History and Culture in Washington.

Cross-Listed as: AAAS 32.15
Distributive: Dist:ART; WCult:CI

THEA 10.56 - Black Theatre Workshop: The August Wilson Experience
Instructor: Ndounou

Using legendary playwright, August Wilson’s ten-play cycle of African Americans’ experiences throughout American history as our inspiration, this course provides hands-on, experiential learning of acting, script analysis, and theatrical production. With no previous performance, design, or production experience required, students will read Wilson’s plays and related commentary with opportunities to perform selected scenes from the Wilson cycle while exploring possibilities for design and technical elements. In this process-oriented course, students also learn basic acting techniques by strengthening observation and listening skills, risktaking, imagination, improvisation, concentration, exploration of self, voice, and body. Activities include textual analysis of Wilson’s plays and related works as well as documenting and revising performance philosophy and process. While providing a safe space for exploring the roles we play in our daily lives and taking on the roles of others in given or imagined circumstances, students will learn widely accepted theories, practices, and terminology of the actor’s craft in order to facilitate the practice, writing, and discussion of acting and producing Wilson’s plays and others.

Cross-Listed as: AAAS 31.50
Distributive: Dist:ART; WCult:CI

THEA 10.57 - Dance Theatre of Harlem Workshop: Collaborative Storytelling Through Movement
Instructor: Ndounou & Heginbotham

Synthesizing aspects of cultural storytelling, theater, movement, activism and biography, this course is focused on the creation of new performance work. Students will have a rare opportunity to engage with the singular Dance Theatre of Harlem (DTH) during their summer residency at Dartmouth College. This course explores the company’s relationship and history with ballets that tell a story and the potential for collaborative storytelling across platforms. During THEA 10.57, students will also create, collaborate, and organize performances of their own movement-based works.

Cross-Listed as: AAAS 31.10
Distributive: Dist:ART; WCult:CI

THEA 10.65 - Performeras on the Latin American Stage
Instructor: Santana

This course provides an overview of women's dramatic writing and cultural expression from Latin America and considers how these texts intersect, reflect, disrupt or resist canonical literary movements in Latin America. Course content includes traditional dramatic forms as well as non-literary, visual and performative forms of expression. By examining works of very diverse ranges, we will also challenge society’s and
the authors’ conceptualizations of Latin American women as a way to critique underlying issues of race, class, gender, and other power structures.

Cross-Listed as: LACS 049 SPAN 65.09
Distributive: Dist:ART; WCult:NW
THEA 10.71 - Plays OnStage: Acting Comedy
Instructor: Horton
An advanced acting class in the art of performing comedy. Building on the basics of Acting I, this course will examine how the fundamentals of acting are adapted to playing a heightened comedic text. Students will be introduced to a broad range of comedic performance, past and present, from sketch comedy to standup to films and television, developing a vocabulary of reference points, styles, and approaches to be applied in their rehearsals of the text. The course will culminate in a public presentation of the play. Roles may be shared.
Prerequisite: THEA 30: Acting I. Equivalent performance courses or experience will be considered on an individual basis.
Distributive: Dist:ART
THEA 10.90 - Contemporary Theater and Performance
Instructor: Churba & Lazar
This course explores the world of contemporary theater and performance. Readings of plays, performance texts, and articles are paired with viewings of recorded, live, and virtual work. Collaborative projects revolve around scene work and devised theater. Students will develop an appreciation for the breadth of new and recent national and international performance. All of this work is theatrical, but none of it is traditional theater. Topics include devised theater, virtual performance, theater as activism and social practice, eco-performance, movement performance, and interactive work that centers the spectator's experience. Open to all classes; this course is required for class of 2021 senior theater majors.
Distributive: Dist:ART
THEA 12 - The Tragedy and Comedy of Greece and Rome
The course studies in translation selected works of Aeschylus, Sophocles, Euripides, Seneca (tragedy), Aristophanes and Plautus (comedy), and some of their central themes and questions: law, community, revenge, passion, and justice. We will approach them both as texts and as scripts/librettos, considering their relationship to other types of performance (ritual, rhetoric, music, dance) and genres (history, philosophy) as well as to theatrical space. There will be practical workshop opportunities for those interested. Open to all classes.
Cross-Listed as: CLST 2
Distributive: Dist:ART; WCult:W
THEA 15 - Theatre and Society I: Classical and Medieval Performance
Instructor: Edmondson
This course explores selected examples of world performance during the classical and medieval periods in Western Europe and eastern Asia. Plays to be discussed might include those by Aeschylus, Sophocles, Euripides, Aristophanes, Seneca, Plautus, Terence, and Zeami. Through the reading and discussion of primary and secondary texts, we seek to situate selected performance texts within their sociopolitical and artistic contexts. Open to all classes.
Distributive: Dist:INT or ART; WCult:W
THEA 16 - Theatre and Society II: Early Modern Performance
Instructor: Santana
This course explores selected examples of world performance during the early modern period (fourteenth through the eighteenth centuries). Plays to be discussed might include those by Shakespeare, Calderón, Sor Juana de la Cruz, Molière, Racine, Marivaux, and Carlo Gozzi. Through the reading and discussion of primary and secondary texts, we seek to situate selected performance texts within their sociopolitical and artistic contexts.
Distributive: Dist:INT or ART; WCult:W
THEA 17 - Theatre and Society III: 19th and 20th Century Performance
Instructor: Ndounou
This course explores selected examples of world performance in the 19th and 20th century. Plays to be discussed might include those by Ibsen, Strindberg, Chekhov, Lorca, Ionesco, Beckett, Williams, Miller, and Brecht, as well as contemporary U.S. playwrights such as Suzan-Lori Parks and Charles Mee. Through the reading and discussion of primary and secondary texts, we seek to situate selected performance texts within their sociopolitical and artistic contexts.
Distributive: Dist:INT or ART; WCult:W
THEA 18 - Russian Theater
This course is devoted to Russian drama and theater from the 19th through the 21st century. We will read eight plays that are central to the Russian literary and theatrical tradition and then discuss their most significant interpretations on both the Russian and the world stage. The meetings will be conducted in a non-traditional format. In our examination of the plays, we will attempt to model the process of stage production in accordance with the principles developed by Konstantin Stanislavsky—a celebrated Russian director whose approach to theater
transformed acting in Russia and beyond. The course will culminate in the production of a play by a Russian playwright which students themselves will cast, direct, and design. All readings are in English.

Cross-Listed as: RUSS 18
Distributive: Dist:LIT; WCult:W

THEA 19 - Human Rights and Performance

What can theatre do for human rights, and human rights for theatre? How do playwrights translate violations of human rights to the stage? Through class discussion and creative exercises, we will explore selected plays from around the world that address human rights through various genres and dramatic forms, including theatre of testimony, documentary theatre, realism, allegory, and surrealism. Open to all classes.

Cross-Listed as: AAAS 54
Distributive: Dist:INT or ART

THEA 21 - Race, Gender, and Performance

Instructor: Edmondson

Students will explore the perspectives of contemporary Latina/o, Asian American, Black, and Native American theater artists/performers. Our examination will also consider the socio-historical and political contexts engaged through these artists' works. We will also consider the relationship between the construction of identity and strategies of performance used by playwrights/performers to describe race, gender, sexuality, class, subjectivity, and ideas of belonging. Texts examined will include works by Moraga, Highway, Wilson, Parks, Gotanda, and Cho.

Cross-Listed as: WGSS 59.04
Distributive: Dist:ART; WCult:CI

THEA 22 - Black Theater, U.S.A.

Instructor: Ndounou

This course will examine African American playwrights, drama, and theater from 1959 to the present. Further exploration will focus on the impact of civil rights, the Black Arts movement, and cultural aesthetics on the form, style, and content of African American plays. Readings will include plays of Hansberry, Baldwin, Baraka, Kennedy, Childress, Shange, Wolfe, Wilson, Parks and others. Open to all classes.

Cross-Listed as: LACS 24.70
Distributive: Dist:ART

THEA 23 - Postcolonial African Drama

Instructor: Edmondson

This course explores selected theatre and performance traditions of sub-Saharan Africa. How do African playwrights negotiate and transform the colonial legacy of Western drama, and how do they use theater to challenge neocolonial regimes and to advance ideas of democracy, human rights, and gender equality? Plays from Nigeria, South Africa, Kenya, and Uganda receive special emphasis. No prior knowledge of African studies or theater is necessary, just a willingness to expand critical and creative horizons.

Cross-Listed as: AAAS 31
Distributive: Dist:ART; WCult:CI

THEA 24 - Asian Performance Traditions

Instructor: Chin

This course studies the performance traditions of Asia, focusing on China, Japan, Indonesia and India. Classical forms studied include Noh, Bunraku, Beijing opera, Sanskrit drama, Balinese dance and Javanese puppet theater. Attention is paid to social, religious and aesthetic influences on these traditions, theories on which they are based, the history behind the theatrical practices, and training and dramatic techniques. Students gain an appreciation of the rich variety and scope of theatrical conventions of Asia.

Cross-Listed as: ASCL 70.07
Distributive: Dist:ART; WCult:NW

THEA 25 - Solo Performance

Instructor: Santana

This course will introduce and engage the history, texts, topics, theoretical guideposts, and landmark figures/performances central to the genre of solo performance. Working between critical examination and practice, participants will analyze the form and content of leading solo performers while also composing a series of short exercises that activate solo performance strategies and methods. The course will culminate in the creation of a participant's self-authored, short solo performance piece.

Cross-Listed as: LACS 24.70
Distributive: Dist:ART

THEA 26 - Movement Fundamentals I

Instructor: Coughlin

An introduction to movement for the stage, this course will animate the interplay between anatomy, movement theories and performance. Through exploration of physical techniques, improvisation and movement composition, students will experience a fundamental approach to using the body as a responsive and expressive instrument. Assignments will include readings, written work, class presentations, mid-term exam and final paper.

Distributive: ART

THEA 27 - Movement Fundamentals II

Instructor: Coughlin
A continuation of THEA 26, this class will explore further the relationship between efficient and expressive movement and body connectivity. Contact improvisation, conditioning, kinesiology and movement repertoire form the foundation from which the class will explore individual performance. Assignments include readings, written work, class presentations and a final paper.

Prerequisite: THEA 26; equivalent experience may be considered. Contact instructor for details.

Distributive: ART

THEA 28 - Dance Composition
Instructor: Heginbotham & Stenn

An in-depth study of the principles of dance composition leading to choreographic projects. Students will receive training in both dance composition and criticism, developing the requisite tools for choreography while acquiring the vocabulary for sophisticated choreographic analysis. Reading and writing assignments on contemporary issues in dance will be the departure for students' theoretical and creative exploration. To this end the class will concentrate on individual student choreography. Students' class work will be performed in an informal showing at the conclusion of the term. Open to all classes.

Distributive: Dist:ART

THEA 29 - Dance Theater Performance
Instructor: Heginbotham & Stenn

Students will examine movement theories and techniques, utilizing these elements to create physical language while developing enhanced ensemble skills. Emphasis will be placed on the creation of a dance theater ensemble piece, which culminates the term in a final performance. The creative process, collaboration, and individual performance are key components of the experience. Readings in Dance Studies and critical reviews of performances are included to contextualize the course’s creative work. Open to all classes.

Distributive: Dist:ART

THEA 30 - Acting I
Instructor: 21F: Rice, Kohn; 22W: Kohn, Hackett, TBD; 22S: Hackett

This course is open to all students. No theater experience is necessary.

To achieve success as a performing artist, an actor must commit to building an ensemble based on respect and mutual understanding and to embracing the notion that empathy is at the heart of the actor’s art. Students will be encouraged to explore their creative abilities on a journey of self-discovery in order to build this sense of ensemble. Through individual and group exercises, students will be introduced to the techniques necessary to play a character believably and honestly. The class will culminate with scene presentations from realistic American plays by authors of diverse cultural backgrounds.

Distributive: Dist:ART

THEA 31 - Acting II
Instructor: Rice & Coughlin

Acting II is an advanced scene study class that focuses on developing a process for performing non-realistic, "heightened" acting texts. Students will encounter plays that present unique challenges for actors in terms of language, physicality, characterization, style, content and text analysis. The class will structurally fuse the traditionally separate disciplines of acting, voice, and movement into a comprehensive unit by approaching the text simultaneously from these three perspectives. The work will proceed from the assumption that the actor’s performance must emerge from an expressively free and integrated instrument.

Prerequisite: THEA 30.

Distributive: Dist:ART

THEA 35 - Acting for Musical Theater
Instructor: Dunne

This course will introduce students to the techniques used by actors/singers to play musical theater scenes believably, honestly and dynamically. Basic acting techniques will be taught as well as work in singing, text analysis, movement and speech. Students will begin with individual songs, then prepare, rehearse and present two-person musical scenes from Company, The Color Purple, West Side Story, Side Show, Into the Woods, Hamilton, Passion, In the Heights, She Loves Me, Follies, and others.

Prerequisite: THEA 30 and permission of the instructor; contact instructor for details.

Distributive: Dist:ART

THEA 36 - The Speaking Voice for the Stage
Instructor: Rice

This course is an examination of the principles and practice of freeing the natural voice. It proceeds from the notion that "voice" and "acting" are inseparable. Although it is an introduction to the use of voice in the theater, it is in no way limited to the actor. A specific progression of exercises will be presented to facilitate freeing the body of tensions, discovering the natural breath, releasing vibrations of sound from the body, and opening the channel for sound (throat, jaw, tongue). Resonance, vocal freedom, and articulation will also be explored. Techniques for accessing emotional and psychological truth will be
practiced as fundamental to the actor's creative process. A groundwork will be laid for physical and vocal presence. Each student will be responsible for the development and practice of a vocal warm-up. A variety of speaking assignments will be made to develop confidence, presence, and emotional expressivity. Text materials utilized will emerge from self-scripted autobiographical storytelling. A strong commitment to the work is necessary to explore what it means to find one's voice. Open to all classes.

Distributive: Dist:ART

THEA 40 - Technical Production
Instructor: Merwin & Parry
An introduction to the technical aspects of live theater, exploring both traditional and modern approaches. Topics include the stage and its equipment, materials and construction of scenic and property items, lighting, sound, rigging, design, stage management, and more. This course includes both lectures and hands-on learning. Open to all students and classes.

Distributive: Dist:ART

THEA 41 - Stage Management
Instructor: Cunneen
An introductory course in the theories, techniques, and practices of stage managing a production from its initial stages to the conclusion of the run. Plays, musicals, opera, dance, and touring productions will be examined from the perspective of the stage manager. Working with directors, choreographers, and other members of the production team will be discussed as well as calling shows. Students will acquire practical experience through assignments on Department of Theater productions. Open to all classes.

Distributive: Dist:ART

THEA 42 - Scene Design I
Instructor: Ganio
An introduction to the basics of scenic design through weekly projects in scale models, drawings, research, lighting and storyboards. Students will also study the collaborative process among scene designers, directors, costume and lighting designers. Suitable for students interested in theater, visual and video art, installation, film, architecture, and sculpture. Students will have the opportunity to assist student and faculty scene designers on Department of Theater productions. Open to all classes.

Distributive: ART

THEA 44 - Lighting Design
Instructor: Kotlowitz
An introduction to the practical and artistic elements of theatrical lighting design. The course will include topics in color theory, form, movement, composition, and the creative process. Through analyzing the script and studying light in nature, film, and art, students will prepare projects that explore the possibilities of light in the theater. Students will have the opportunity to work on Department of Theater productions with faculty and student lighting designers. Lectures, discussions, design projects, and critiques. Open to all classes.

Distributive: Dist:ART

THEA 48 - Costume Design
Instructor: Churba
An introductory course in the appreciation of the costume design process as part of the dramatic production. Through weekly projects, students will study the principles of line, texture, and color as well as the history of costume from the Renaissance through the eighteenth century. Lectures, design projects, and critiques. Open to all classes.

Distributive: Dist:ART; WCult:W

THEA 50 - Playwriting I
Instructor: Padilla
The aim of this course is for each student to write the best one-act play he or she is capable of writing. It is open to students both with a theater background and those without. This course will involve a number of preliminary exercises, the preparation of a scenario, the development of the material through individual conferences, and finally the reading and discussion of the student's work in seminar sessions. Open to all classes. Limited enrollment.

Distributive: ART

THEA 51 - Playwriting II
Instructor: Padilla
Permission of the instructor is required.
Prerequisite: THEA 50
Distributive: ART

THEA 54 - Directing
Instructor: Hackett
An introductory course in directing for the stage. This class will focus primarily on text analysis and basic actor coaching techniques, culminating in staging scenes by authors from diverse cultural backgrounds. Particular attention will be paid to methods for building a creative ensemble based on respect and mutual understanding. Open to all classes.

Prerequisite: THEA 30 or equivalent experience.
Distributive: Dist:ART
THEA 60 - Classical Performance I
Instructor: LAMDA faculty
This course is taught by the LAMDA faculty. THEA 60 is an intensive course in classical theater training focused on acting (including improvisation), movement (including movement theater, clown and historic dance), and voice (including singing). Texts include Shakespeare and either Jacobean or Restoration plays. This typical British conservatoire experience is designed for students interested in acting, directing, playwriting, design, stage management, dramaturgy or criticism. Offered only as a part of the Theater Foreign Study Program in London. This course is graded as credit/no credit.
Prerequisite: One theater history course is required: either THEA 15, 16, or 17. In addition, one theater practice course is required: either THEA 10 (with Chair's approval), 25, 26, 27, 28, 29, 30, 35, 36, 40, 41, 42, 44, 48, or 50.
Distributive: ART

THEA 61 - Classical Performance II
Instructor: LAMDA faculty
A continuation of Classical Performance I. This course is graded credit/no credit.
Prerequisite: One theater history course is required: either THEA 15, 16, or 17. In addition, one theater practice course is required: either THEA 10 (with Chair's approval), 25, 26, 27, 28, 29, 30, 35, 36, 40, 41, 42, 44, 48, or 50.
Distributive: ART

THEA 62 - Plays in Performance-Perception and Analysis
Offered only as a part of the Theater Foreign Study Program in London, this seminar integrates the study of theater with the experience of plays in performance. By providing intense, comparative experience of playgoing, the course intends to broaden students' knowledge of the dramatic repertoire, to heighten their awareness of production approaches and values, and to encourage them to develop considered critical response to theater. Students attend a number of required performances and in addition attend performances of their own choosing - normally a total of three plays per week. Productions will represent a variety of periods and styles of playwriting, and a similarly diverse range of production companies and approaches to performance. Weekly seminar meetings will focus on critical responses to plays and productions, with background provided by guests from the professional theater (directors, writers, performers, designers, critics). Students will maintain journals and provide brief written critiques.
Prerequisite: One theater history course is required: either THEA 15, 16, or 17. In addition, one theater practice course is required: either THEA 10 (with Chair's approval), 25, 26, 27, 28, 29, 30, 35, 36, 40, 41, 42, 44, 48, or 50.
Distributive: Dist:ART; WCult:W

THEA 65 - Summer Theater Lab
Instructor: 21X: Horton; 22X: TBD
This experiential class is designed to explore the development of new work for the theater. Students will participate actively in three exciting aspects of our summer production season: 1) VoxLab, a one-week festival of new projects initiated by Dartmouth alumni, 2) the Frost and Dodd Student Play Festival, and 3) the New York Theatre Workshop's annual summer residency.
This course is designed for students with some level of familiarity and experience with theater; please contact instructor for details.
Distributive: Dist:ART

THEA 80 - Independent Study
Instructor: The Faculty/Kotlowitz
This course is designed to enable qualified upperclass students, who have completed the appropriate supporting coursework, to engage in independent study in theater under the direction of a member of the department. A student should consult with the faculty member with whom he or she wishes to work as far in advance as possible, and not later than the term immediately preceding the term in which the independent study is to be pursued. A written proposal and the approval of the faculty member and of the Chair are required.
Prerequisite: Course admission is determined by a proposal process; contact the Chair or visit the dept website for details.
Distributive: Dist:ART

THEA 90 - Contemporary Theater Practice
Instructor: Churba
This course seeks to explore the contemporary world of theater. Through contemporary play readings and collaboration projects that revolve around scene work and devised theater, students develop an appreciation for the breadth of new work being developed and produced in the field. Course materials include articles on experimental theater companies and their current practices; contemporary plays; and live performances. This course is mandatory for senior theater majors.
Prerequisite: Open to Theater majors and modified majors only.
Distributive: Dist:ART

THEA 91 - The Honors Thesis I
Instructor: The Faculty/Kotlowitz
An Honors project, which normally encompasses two terms, must include a thesis or thesis project. This course must be elected by all honors candidates. For acceptance into this course, please see the section in the ORC on the Theater Honors Program. Students are awarded one course credit for successful completion of this course, and receive a grade for the course at the end of the term. Students then subsequently register for THEA 92 in order to continue with their Honors Program study in a second term.

Prerequisite: For details on the Honors Thesis acceptance process, please see the section in the ORC on the Theater Honors Program and/or visit the Department of Theater website.

THEA 92 - The Honors Thesis II
Instructor: The Faculty/Kotlowitz
An Honors project, which normally encompasses two terms, must include a thesis or thesis project. This course must be elected by all honors candidates. For acceptance into this course, please see the section in the ORC on the Theater Honors Program. Students are awarded one course credit for successful completion of this course. Students enrolling in this course have already completed one term of Honors Program study, and are registering for this course in order to continue their Honors Program work in a second term.

Distributive: Dist:ART

Tuck - Undergraduate
These business courses, developed as a collaboration between the Arts and Sciences and the Tuck School of Business, are aimed at exposing undergraduates to core theories and principles of business behavior within the national and international socioeconomic environment. The courses have no prerequisites, can be taken independently of each other in any order, and are open to all sophomores, juniors, and seniors regardless of major.

TUCK - Tuck Undergraduate Courses
TUCK 1 - Financial Accounting
Instructor: Thomas L. Porter
The purpose of this course is to introduce students to the principles of financial accounting and to teach students to be critical users of financial statements. The course is divided into two parts. The first part introduces students to the concepts and measurements underlying financial statements. The second part focuses on analyzing financial statements and understanding the choices firms make in reporting financial results. Students will be exposed to the decisions firms make relating to their operating, capital investment, and financing activities and how managers use discretion to affect reported financial results. Priority given to seniors, juniors, and then sophomores.

TUCK 2 - Principles of Marketing
Instructor: Lauren S. Grewal
Marketing deals with identifying and meeting human and social needs and is an organization function with a set of processes for creating, communicating, and delivering value to customers in ways that benefit the organization (for profit, not for profit, and public sector) and its stakeholders. The overall objective of this course is to introduce students to the substantive and procedural aspects of marketing strategy and implementation and to sharpen their skills for critical analytical thinking and effective communication. The course will involve case discussions and a group project. Priority given to seniors, juniors, and then sophomores; first-year students are not eligible.

TUCK 3 - Business Management and Strategy
Instructor: Christian Stadler
This course is intended to introduce students to the strategic management of business ventures. Topics will include theories governing the choice of business activities, market positions, technological responses, and social commitments. Throughout the course, we will attempt to differentiate between policy advice based on evidence from that based on speculation. Priority given to seniors then juniors. Sophomores and first-year students are not eligible.

Women's, Gender, and Sexuality Studies Program
Chair: TBA
Professors S. Ackerman (Religion, Women's, Gender, and Sexuality Studies), T. Aguado (Spanish and Portuguese), L. Baldez (Government, Latin American, Latino, and Caribbean Studies), F. E. Beasley (French and Italian), R. E. Biron (Comparative Literature, Latin American, Latino, and Caribbean Studies, Spanish and Portuguese), C. E. Boggs (English, Women’s, Gender, and Sexuality Studies), S. J. Brison (Philosophy), A. Cohen (Art History), M. Desjardins (Film and Media Studies), M. K. Coffey (Art History, Latin American, Latino, and Caribbean Studies), A. A. Coly (African and African-American Studies, Comparative Literature), C. M. Dever (Geography), L. Edmondson (Theater), S. Heschel (Jewish Studies, Religion), I. Kacandes (Comparative Literature, German Studies), A. Lawrence (Comparative Literature, Film and Media Studies), K. J. Lively (Sociology), C. H. MacEvitt (Religion), B. E. Moreton (History), R. Ohnuma (Religion, Women's, Gender, and Sexuality Studies), A. Orleck (History), G. Parati (Comparative Literature, French and Italian,
Women's, Gender, and Sexuality Studies), I. T. Schweitzer (English, Women's, Gender, and Sexuality Studies), W. P. Simons (History), S. D. Spitta (Latin American, Latino, and Caribbean Studies, Spanish and Portuguese, Comparative Literature), R. L. Stewart (Classics), M. R. Warren (Comparative Literature), D. Washburn (Asian Societies, Cultures, and Languages, Comparative Literature, Film and Media Studies), B. E. Will (English); Associate Professors R. M. Baum (African and African-American Studies, Religion), D. J. Brooks (Government), L. A. Butler (History), N. L. Canepa (French and Italian), M. T. Clarke (Government), S. R. Craig (Anthropology), V. Fuechtner (German Studies), R. J. Johnson (History), D. K. King (Sociology), E. B. Lim (Women's, Gender, and Sexuality Studies), A. Martin (Comparative Literature, Spanish and Portuguese, Women's, Gender, and Sexuality Studies), J. McCabe (Sociology), J. Rabig (History), I. Reyes (Comparative Literature, Latin American, Latino, and Caribbean Studies, Spanish and Portuguese), A. Tarnowski (Comparative Literature, French and Italian), S. A. M. Vásquez (English), E. C. Walton (Sociology), J. T. Wernimont (Women's, Gender, and Sexuality Studies), M. J. Williams (Film and Media Studies), M. F. Zeiger (English); Assistant Professors Z. Ayubi (Religion), M. Huang (Women's, Gender, and Sexuality Studies), C. L. Kivland (Anthropology), E. S. Morsi (Middle Eastern Studies), P. R. Stuelke (English); Senior Lecturers S. J. Billings (Anthropology), A. E. Bumpus (Philosophy), D. J. Moody (Latin American, Latino, and Caribbean Studies, Women's, Gender, and Sexuality Studies), G. J. Munafo (Women's, Gender, and Sexuality Studies), V. Palmer (Native American Studies), J. Sargent (Institute for Writing and Rhetoric, Women's, Gender, and Sexuality Studies); Lecturers F. M. A'Ness (Institute for Writing and Rhetoric, Women's, Gender, and Sexuality Studies); C. S. Choi (Sociology, Women's, Gender, and Sexuality Studies), M. De Berry (Women's, Gender, and Sexuality Studies), C. S. Choi (Sociology, Women's, Gender, and Sexuality Studies), M. De Berry (Women's, Gender, and Sexuality Studies), A. P. Hernandez (Women's, Gender, and Sexuality Studies), A. Jetter (English, Women's, Gender, and Sexuality Studies), N. Mayer (Women's, Gender, and Sexuality Studies), T. S. Monson (Women's, Gender, and Sexuality Studies), E. Sawada (English, Women's, Gender, and Sexuality Studies), M. Vallarta (Women's, Gender, and Sexuality Studies), S. Whitley (Women's, Gender, and Sexuality Studies); Distinguished Visiting Professor G. Dietze (Women's, Gender, and Sexuality Studies); Distinguished Visiting Scholar H. Carby (Women's, Gender, and Sexuality Studies).

Women’s, Gender, and Sexuality Studies may be undertaken as a program for a major, a minor, or a modified major.

To view Women’s, Gender, and Sexuality Studies courses, click here (p. 704).

Women’s, Gender, and Sexuality Studies Major

Women’s, Gender, and Sexuality Studies offers a range of interdisciplinary courses as well as an extensive list of associated courses, offered by other departments and programs, that have a central focus on gender, women, or sexuality. The major is administered by the Women’s, Gender, and Sexuality Studies Faculty Steering Committee. Students design their major plans in consultation with the Chair. Only the Chair may approve majors and minors in DartWorks. Students interested in becoming majors should consult the Chair well in advance of their intended declaration of a major.

Prerequisite: WGSS 10: Sex, Gender, and Society.

Requirements: (9 additional courses)

1. WGSS 15: Roots of Feminism
2. WGSS 16: Contemporary Issues in Feminism
3. WGSS 80: Feminist Theory and Methodology
4. Three additional Women's, Gender, and Sexuality Studies Courses
5. Three additional courses selected from Women's, Gender, and Sexuality Studies offerings or from associated courses
6. Concentration. In consultation with the Chair, each student will include within the list of required courses an area of concentration consisting of at least three related courses. Some examples of possible areas of concentration are Gender in Literature; Women in the Global South; Lesbian, Gay, Bisexual, and Transgender Studies; Women's History; or Sex and Gender in Science.
7. Diversity. Each student's major plan must include at least two courses that are clearly outside the area of concentration to provide diversity to the major.

Requirement 3 constitutes the culminating experience in the major and minor.

WGSS 7 (First-Year Seminar) may not count towards the major or minor.

Honors Program in Women’s, Gender, and Sexuality Studies
Women’s, Gender, and Sexuality Studies majors will be invited to participate in the Women’s, Gender, and Sexuality Studies Honors Program if, after completing seven Dartmouth terms, WGSS 10, and four graded courses in the Women’s, Gender, and Sexuality Studies major, they have achieved an overall College grade point average of 3.0 and a major average of 3.3.

The Honors Program consists of a two-term thesis project, WGSS 98 and WGSS 99. Students will design their projects in consultation with the adviser who has agreed to direct the thesis. A student must submit a preliminary proposal, with support from their advisor, to the Women’s, Gender, and Sexuality Studies Faculty Steering Committee during spring term of the junior year. After doing reading and research over the summer term, a student must submit a final thesis proposal for the approval of the Women’s, Gender, and Sexuality Studies Faculty Steering Committee by the second week of the fall term of the senior year. WGSS 98 and WGSS 99 carry two credits toward degree requirements but count as only one credit toward major requirements.

Women’s, Gender, and Sexuality Studies Minor

The Women’s, Gender, and Sexuality Studies minor consists of six courses: WGSS 10 (prerequisite); WGSS 15 or WGSS 16; WGSS 80; one other Women’s, Gender, and Sexuality Studies course; and two additional courses selected from the Women’s, Gender, and Sexuality Studies offerings or from associated courses.

Women’s, Gender, and Sexuality Studies Modified Major

The modified major in Women’s, Gender, and Sexuality Studies combines gender- or sexuality-related interdisciplinary coursework taken under the auspices of the Women’s, Gender, and Sexuality Program with courses that are specific to a given discipline. Students will design a coherent program of study as they combine their interest in gender or sexuality studies with knowledge and skills provided by their secondary interest.

The courses in the secondary discipline should not be WGSS cross-listed or associated courses; they should instead be courses necessary for students to gain proficiency in their chosen secondary discipline, i.e., courses that count for the major or minor in that discipline.

Students wishing to pursue a modified major in WGSS must submit a written proposal that will be reviewed by the WGSS Faculty Steering Committee; approval by the chair or other appropriate faculty member in the secondary discipline is also required.

Requirements for the Modified Major: (11 courses)

Women’s, Gender, and Sexuality Studies (7 courses: 4 Core + 3 Electives)

1. WGSS 10: Sex, Gender, and Society
2. WGSS 15: Roots of Feminism
3. WGSS 16: Contemporary Issues in Feminism
4. WGSS 80: Feminist Theory and Methodology
5. Three additional upper-level courses from the WGSS course offerings. One of these courses may be an associated course.

Secondary Discipline (4 courses from a single discipline)

1. Four upper-level courses that count towards the Major/Minor in that discipline.

Modifying Another Major with Women’s, Gender, and Sexuality Studies

When Women’s, Gender, and Sexuality Studies becomes the secondary part of a modified major, five courses are required: WGSS 10 (prerequisite) and four additional courses selected from the Women’s, Gender, and Sexuality Studies offerings. Only two of these courses can be associated courses. A modified major should be planned to form a coherent program of study with the major. Students must file a written statement with each department and the Registrar explaining the rationale for the courses selected for the modified major.

WGSS - Women's, Gender, and Sexuality Studies Courses

To view Women’s, Gender, and Sexuality Studies requirements, click here (p. 702).

Associated Courses

Please see the Women’s, Gender, and Sexuality Studies website for an up-to-date listing of associated courses.

WGSS 7 - First-Year Seminar in Women's, Gender, and Sexuality Studies

WGSS 10 - Sex, Gender, and Society

Instructor: 21F: A’Ness, De Berry, Monson, Sawada; 22W: Sargent

How has current thinking about sex, gender, and sexuality formed our experiences and understandings of ourselves, the world we inhabit, and the world we envision? This course investigates basic concepts about sex, gender, and sexuality and considers how these categories intersect with issues of race, class, ethnicity, family, religion, age, and/or national identity. The course also considers the effects of sex, gender, and sexuality on participation in the work force and politics, on language, and on artistic expression. In addition to reading a range of foundational feminist
texts, materials for analysis may be drawn from novels, films, the news, popular culture, and archival resources. Open to all students.

Distributive: Dist:SOC; WCult: CI

WGSS 15 - Roots of Feminisms: Texts and Contexts
Instructor: 22W: Martin
This course will examine pre-twentieth century texts and historical events that set important precedents for the development of contemporary feminist theories and practices. We will survey some of the writings that consolidate legitimated patriarchal/misogynist ideologies in Western worlds (e.g. Plato, Aristotle, the fathers of the Church, the philosophers of the eighteenth-century Enlightenment, Rousseau). We will analyze different ways in which women historically have articulated strategies of contestation and/or resistance to systems of power based on gender differentiation. Readings may include works by French medieval thinker Christine de Pizan; sixteenth-century Spanish cross-dresser Catalina de Erauso; seventeenth-century Mexican intellectual and nun Sor Juana Ines de la Cruz; Mary Wollstonecraft; Maria Stewart, the first African-American political woman writer; the nineteenth-century American suffragists; and anarchist leader Emma Goldman. Open to all students.

Distributive: Dist:SOC; WCult: CI

WGSS 16 - Contemporary Issues in Feminism: Theory and Practice
Instructor: 21F: Huang; 22S: Sawada
How do feminist, queer, and racialized minoritarian subjects move through and produce knowledge about inhospitable worlds, often against the limits of what is sayable, knowable, and thinkable? What makes a reading practice, text, or act feminist or queer? What makes critical knowledge critical? These questions will guide this seminar on feminist ways of knowing. Together we will explore the politics of knowledge and roles of theory in knowing and transforming the world.

Distributive: Dist:SOC; WCult: CI

WGSS 18 - Introduction to Lesbian, Gay, Bisexual, and Transgender Studies
Instructor: 21F: Monson
This course will examine the ways in which "deviant" sexual and gender behavior and identities, and the political movements that emerge from them, have been conceptualized in U.S. culture. We will cover basic lesbian/gay/bisexual/transgender cultural and political history and the interplay between sexuality, gender, race, class, ethnicity, and economics. Students will be expected to work with primary documents (including novels and film), recent work in queer theory, and historical analysis. Open to all students.

Distributive: Dist:SOC; WCult: CI

WGSS 20.02 - #MeToo: Intersectionality, Hashtag Activism, and Our Lives
The #MeToo movement is a response to gender-based harassment, assault, and violence. It is a form of resistance. This course examines and critiques the #MeToo movement. It covers the movement’s founding in 2006 by civil rights activist Tarana Burke; the benefits and limitations of intersectionality theory and approaches; feminist legal and critical race theories about sexual harassment and gender based violence; and competing analyses of contemporary #MeToo activism, particularly its spotlight on the wealthy and famous. The course includes elements of collaborative syllabus building, campus outreach activities, group project work, research into histories of resistance at Dartmouth (using College archives), and peer review of students’ written work. Throughout the term, we will draw connections among scholarship, current events, and our lives.

Distributive: Dist:SOC; WCult: CI

WGSS 20.03 - Introduction to the Study of Race, Migration, and Sexuality
Instructor: 21F: Lim
This course aims to deepen our understanding and appreciation of the ways in which race, migration and sexuality have shaped U.S. culture, social and legal thought, cultural institutions and art practice from the colonial era to the present. Race, migration, and sexuality are experienced differentially across all groups and individuals. They also have distinctive transnational and diasporic histories and practices. This course will focus on the various groups that have comprised the United States in a comparative and decolonial study aligned with the intersectional approach advocated by black feminists. Students will learn about issues of race, migration, and sexuality across time and space, as critical dimensions of the nation’s political and economic structures, within different ethnocultural traditions, and in aesthetic, performance practices. The central object is to weave diverse historical and cultural traditions into a larger synthesis of the meaning of race, migration and sexuality in North American life that is deftly attuned to power in all of its guises and establishmentary logics.

As a broad introduction to the multi- and inter-disciplinary studies in race, migration, and sexuality, the course will employ “a constellated approach” that will highlight the connections between our interdisciplinary programs with components of study in U.S. ethnicities, genders and indigeneities. It will enable students to think across the fields of Latinx, African, Native and Asian American Studies while also encouraging thinking in global, hemispheric, transnational and decolonial terms. The course will promote interest in border thinking across geographies and practices that demand a fundamental
rethinking of existing paradigms with new questions, objects and analytics
Distributive: Dist:INT or SOC; WCult:NW

WGSS 21.01 - Slaves, Wives, & Concubines: Did Roman Women Have a History?
Instructor: Stewart
This course is about the heterogeneous lived experience of women (slaves, freed slaves, lawful wives, daughters, prostitutes) during the Roman Republic and Empire. Roman women built and immortalized themselves and their families in funerary and civic monuments, endowing institutions like schools, and sometimes had coins bearing their portraits. We explore the larger institutional frameworks that gave meaning to their lives, and within this framework we investigate their live choices over time.

Cross-Listed as: CLST 11.12, HIST 94.13
Distributive: Dist:SOC; WCult:CI

WGSS 22.01 - Gender and European Society from Antiquity to the Reformation
Instructor: Simons
This course examines the roles of women and men in Western Europe from late Antiquity to the Reformation period. Emphasis will be placed on the intellectual and social strictures that had a long-term effect on the concept and role of gender in European society. Topics included are biological and mythological foundations of gender concepts; attitudes toward the body and sex in pre-Christian and Christian culture; sin and ecclesiastical legislation on sex and marriage; family life and education; the individual and kinship; heresy and charismatic religious movements; and the impact of social-economic development on gender in professional life. We will discuss the textual and visual sources for our inquiry, as well as the changing contemporary views on gender roles in pre-industrial Europe. Open to sophomores, juniors and seniors.

Cross-Listed as: HIST 042
Distributive: Dist:TMV; WCult:CI

WGSS 23.01 - Gender and Power in American History
This course examines the history of men and women from the period of colonial settlement to the achievement of woman’s suffrage. We will explore the construction of gender particularly as it relates to social, political, economic, and cultural power. Topics will include: the role of gender in political thought and practice; the intersection of gender with categories of class and race; gender in the debate over slavery and the Civil War; and the rise and evolution of the woman’s rights movement. Open to sophomores, juniors and seniors.

Cross-Listed as: HIST 27

WGSS 23.02 - American Women in the Twentieth Century
Instructor: 22S: Orleck
This course is a multi-cultural multi-media history of American women from the Civil War to the present. We will discuss race and class tensions in the woman suffrage movement; women, labor, and radicalism from the 1910s through the 1940s; civil rights, welfare rights, the rebirth of feminism in the 1960s and 70s; and backlash politics from the 1950s to the 1980s.

Distributive: Dist:SOC; WCult:CI

WGSS 24.01 - Arab Feminisms
Instructor: 22S: Morsi
This course is an introduction to the history of feminism in the Arab world from the 19th century to the present. It examines some of the most important socioeconomic and political issues as well as aesthetic trends that were or continue to be central to feminist activism and cultural production in the region. Throughout the term students will engage with a wide range of primary sources (newspaper articles and op-eds, memoirs, novels, poems, photographs and films) that will help them develop a nuanced and critical understanding of the diverse and dynamic experiences of women in the Arab world.

Cross-Listed as: MES 19.03
Distributive: Dist:INT or LIT; WCult:NW

WGSS 24.02 - Gender and The Modern Middle East and North Africa
Instructor: Nikpour
In this course, we will study histories of the modern Middle East and North Africa and examine the ways that issues relating to gender and sexuality have affected the politics and social worlds of the region over the course of the past several centuries. This course begins with the medieval Islamicate Empires — Mughal, Safavid, and Ottoman — and then moves through the end of empire, the colonial era, the establishment of the nation state, and the emergence of modern cultural, political, and religious movements. In doing so, we will situate the histories and social worlds of the region in a global frame, asking how global political and economic transformations have affected the region. At the same time that we attend closely to these histories, we will also examine the ways in which the category of “woman” has been mobilized in popular and political discourses in the 18th-21th centuries, paying particular attention to how Muslim and Middle Eastern women have been represented in various political discourses, as well as how they have represented themselves. Through close readings of both primary sources (in translation) and secondary literature
I. MAJORS AND THE MINOR OPEN TO THE CLASSES OF 2023 AND EARLIER

— including historiographical, theoretical, and literary texts as well as film and music—we will also tackle the questions, controversies, and stereotypes that have animated debates in both scholarly and popular literature on such topics as the veil, feminism, revolution, human rights, LGBT issues, masculinity, and war.

Cross-Listed as: HIST 70; MES 19.04
Distributive: Dist:SOC; WCult:NW

**WGSS 26.02 - Women and American Radicalism Left and Right**

Instructor: 21X: Orleck

This course will trace the involvement of U.S. women in radical political movements from the mid-nineteenth century to the present including: Abolitionism; Anti-lynching; Socialist Trade Unionism; the Ku Klux Klan; the Communist Party; the National Welfare Rights Organization; the Civil Rights Movement; the New Left; the New Right; the direct-action wing of the anti-abortion movement; Earth First; and the neo-Nazi American Front. It will also examine the relationship between feminist ideologies and non-gender-specific radical political ideologies centered on race, class, and other social identifiers.

Cross-Listed as: HIST 29
Distributive: Dist:SOC; WCult:CI

**WGSS 26.03 - History of Sexuality**

Instructor: 21X: Moreton

How have historical processes produced distinct sexual practices and identities over time? This course engages 300 years of a history that often evaded the historical record or was deliberately purged from it and asks how more traditional topics of U.S. historical inquiry—immigration, citizenship, economic organization, intellectual and artistic production, racialization, formal politics, law, religious practice—can yield new insights when sexual history is included as a legitimate dimension of analysis.

Cross-Listed as: HIST 08.04
Distributive: Dist:SOC; WCult:W

**WGSS 30.01 - Women, Gender and Development**

Instructor: Parikh

This course examines gender as it relates to both women and men and as constituted by multiple factors such as place, space, class, sexuality, age, race, ethnicity, nationality, and culture—what some call categories of "difference." We will explore how these categories of difference shape women's and men's daily lives, our institutions, the spaces and places we live in, and the relationships between social groups in different places and between different places in the world.

Cross-Listed as: GEOG 026
Distributive: Dist:SOC; WCult:CI

**WGSS 30.04 - Women, Work, and Wealth**

Instructor: Moreton

It is one of the most famous sentences in the English-language canon, a short-hand for the entire foundation of modern economics: “It is not from the benevolence of the butcher, the brewer, or the baker, that we expect our dinner,” wrote Adam Smith in his 1776 The Wealth of Nations, “but from their regard for their own interest.” But of course none of those men actually served the lifelong bachelor his dinner: his mother did, and whether she did so from benevolence, self-interest, or some less easily classified motivation, the field of political economy was defined by her exclusion from its questions and answers. This course interrogates the sexual and racial contracts at the heart of modern economic relations, and asks how returning mothers, wives, daughters, and servants to the history of capitalism alters our assumptions about economic man.

Distributive: Dist:SOC; WCult:CI

**WGSS 30.05 - Maid in America: The Politics of Domestic Labor**

Instructor: A'Ness

In Maid in America we study the representation, history, and rights of domestic workers in the Americas with a focus on the United States, Brazil, Mexico, Chile, and Argentina. Specifically, we look at representation and rights from artistic, legal, and sociological perspectives. Using the the theoretical frames of intersectional and transnational feminism we will analyze primary texts that include essays, manifestos, theater, and documentary film. Topics we will explore will include media representation and controlling images, migrant imaginaries, invisible labors, modern-day slavery, the feminization of migrant work, and labor organization and rights. The class will include a theater workshop component that will culminate in the public presentation of an original group performance titled: Making the Invisible Visible: The Politics of Domestic Labor.

Cross-Listed as: LACS 036
Distributive: Dist:ART; WCult:CI

**WGSS 30.06 - Women and Poverty in the United States**

Instructor: Parikh

This course will encourage students to understand the connection between women and poverty in the United States: (why) are women more likely to be poor than men? The course will explain this connection between women and poverty by looking at gendered and raced wage gaps; women’s paid and unpaid work within capitalism; the cost of identifying women with caretaking work; stereotypes of poor women; American public policy
targeted at (certain) women; and the intersection of (environmental) racism, sexism, and classism.

Distributive: Dist: SOC; WCult: CI

**WGSS 31.01 - Sex and the State in Latin America**

Instructor: Baldez

This course examines women’s movements in Latin America. Women in Latin America are perhaps the most highly mobilized population in the world. Throughout the region women have organized around myriad issues, including the right to vote, human rights, poverty, legal rights, anticommunism, the workplace, race, ethnicity and war. Women’s efforts to challenge fiercely repressive regimes, deeply entrenched norms of machismo and extreme poverty defy conventional stereotypes about women and provide us with inspiring examples of how to sustain hope during difficult times. The seminar will introduce students to recent scholarship on women’s movements in Latin America in the 20th century and seek to understand the emergence, evolution and outcomes of women’s movements in particular countries and cross-nationally.

Cross-Listed as: GOVT 49.04 LACS 52
Distributive: Dist: SOC; WCult: NW

**WGSS 31.04 - Women and Politics**

Instructor: 21F: Brooks; 22S: Brooks

This is a general course on women in politics. We will examine the role of women as politicians, activists, and voters. The course will examine a wide range of issue areas, including: female attitudes on war and conflict, the reactions of women to different kinds of campaign tactics and policy positions, the differing barriers women face to attaining elected office in different countries, and how the challenges thought to be faced by female political leaders compare with those faced by male business leaders. One key question we will explore concerns whether female politicians are treated differently than male politicians, and how that might affect their strategies for reelection and governance. Open to all students.

Cross-Listed as: GOVT 20.01
Distributive: Dist: SOC; WCult: NW

**WGSS 32.03 - The Constitutional Rights of Women**

Instructor: Sargent

This course combines the study of U.S. Supreme Court cases that directly affected (and continue to affect) women’s rights with the examination of women’s narratives about their experiences in society before, during and after those landmark decisions. We will weave the stories of women of various races, religions, sexual identities and employment histories, many of whom were unwitting or unexpected plaintiffs in landmark Supreme Court cases, with the Court’s reasoning and intentions in those opinions. We will also examine the evolution and contributions of the female justices of the U.S. Supreme Court and observe how their experiential rhetoric informs the Court’s opinions.

Distributive: Dist: TMV; WCult: CI

**WGSS 33.01 - Constructing Black Womanhood**

Instructor: King

This course is a critical examination of the historical and contemporary status of black women in the United States, as presented in fiction, primary accounts, and social science literature. We will explore the nature, extent, and consequences of the multiple discriminations of race, sex, and class, as the context in which these women shaped their social roles and identities within the black community and the larger society. We will consider the themes of family, motherhood, and sexuality; educational, economic and political participation; aesthetics and religious traditions; and self and social images. Open to juniors and seniors.

Cross-Listed as: AAAS 25, SOCY 46
Distributive: Dist: SOC; WCult: CI

**WGSS 33.03 - Gender and Judaism**

Instructor: 22S: Greenblatt

Examining the intersections between gender, religious practice, cultural identity, and personal belief, this class will draw upon contemporary gender theory, religious texts and contemporary interpretations of Jewish thought and culture to examine the construction of Jewish identity through a feminist lens. Authors will include Alder, Boyarin, Heschel, Gilman, Peskowitz, Levitt and Biale. The class will also investigate questions of race, ethnicity, assimilation and Jewish gender issues in popular culture, including films and the work of performers Cantor, Benny, Berg, Midler, and Sandler.

Cross-Listed as: JWST 053 REL 19.22
Distributive: Dist: TMV; WCult: CI

**WGSS 33.05 - Unstalling the Stalled Revolution: Gender (In)equality at Work and at Home**

Instructor: 21F: Smith

The nature of work, family life, and gender relations has changed dramatically over the last half century. This course examines these trends, with a focus on implications for gender inequality in society. We will focus on patterns in paid labor force participation and family life in the United States, and discuss the major debates surrounding the causes and consequences of such trends. We will also pay attention to how these patterns look across different races, ethnic groups, and socioeconomic status, as well as briefly examine how these trends compare to other
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countries. We will conclude by exploring the implication of gender inequality for families, as well as work-family policy debates.

Cross-Listed as: QSS 30.17 SOCY 061
Distributive: Dist:SOC; WCult:W

WGSS 33.07 - Love, Romance, Intimacy and Dating
Instructor: Lively

Why do you connect with some people and not others? What exactly is love? And how do you make smart romantic choices for yourself? In this course we examine the social aspects of love, romance, intimacy, and dating. Using sociological theories and methods, we will investigate how cultural beliefs and structural arrangements affect our most intimate feelings and experiences. Specific topics include virginity loss, adolescent sexual behavior, hooking up, dating, intimacy and polyamory.

Cross-Listed as: SOCY 62
Distributive: SOC

WGSS 34.02 - Gender Identities and Politics in Africa
Instructor: Coly

This interdisciplinary course explores the constructions of gender identities in different African socio-cultural contexts. The emphasis is on contemporary Africa, although we will discuss some of the historical framework of these identities. We will read historical accounts of gender in some pre-colonial African societies, investigate the impact of colonialism, and examine gender in some anti-colonial movements. We will also analyze gender in urban and rural contexts, and address such questions as homosexuality and gay rights.

Cross-Listed as: AAAS 040
Distributive: Dist:INT; WCult:CI

WGSS 34.04 - Sociology of Gender
Instructor: McCabe

What is gender? This seminar examines multiple sociological perspectives on what it means to be a woman, man, boy, or girl in everyday life - including gender as a social structure, an identity, an ideology, and something people "do." Readings and discussions reflect a belief that diversity (race/ethnicity, class, age, sexuality, etc.) is central to the study of gender. Possible topics include: language, the body, science, the wage gap, education, and masculinity during young adulthood.

Cross-Listed as: SOCY 56
Distributive: SOC

WGSS 36.01 - Gender in Cross-Cultural Perspective
Instructor: Billings

Sex (biological differences between men and women) and gender (social constructions of those differences) are not straightforward or natural, and it naturally follows that gender inequalities and gender oppression are also not straightforward and natural. Therefore, we will pay close attention to the issue of power - in terms of control and distribution of resources and the enforcement of gender roles and sexuality. We will also look at how Western gender ideals have been imposed on people in other parts of the world. We will talk about concepts, perceptions, images, stories, encounters, games, connections and disconnections. Finally, we will explore questions of practice and resistance.

Cross-Listed as: ANTH 31
Distributive: Dist:INT or SOC; WCult:CI

WGSS 36.06 - Gender and Sexuality in Asian American Literature

Focusing on contemporary Asian American literature, film, and popular culture, this course emphasizes a diverse range of engagements with gender and sexuality that disrupts binary thinking on the topic. Through close analysis of cultural texts, students will examine the formation of Asian American genders and sexualities alongside histories of racialization, migration, and labor. Texts may include: Monique Truong's The Book of Salt, David Henry Hwang's M Butterfly, R. Zamora Linmark's Rolling the R's, Justin Lin's Better Luck Tomorrow, as well as episodes of Battlestar Galactica and 24. We will also read critical essays by Gayatri Gopinath, David Eng, Yen Le Espiritu, Karen Tongson, Lisa Nakamura, and Martin Manalansan.

Cross-Listed as: ENGL 53.33
Distributive: Dist:LIT

WGSS 37.03 - Social Justice and the City
Instructor: 21F: Collins

This course explores issues of social justice and cities in terms of the spatial unevenness of money and power within and among cities, between cities and their hinterlands, and between cities of the world. We will examine how multiple dynamic geographic processes produce spatial and social inequalities that make cities the locus of numerous social justice issues. We will also look at how urban communities and social groups are engaged in working for social change.

Cross-Listed as: GEOG 25; SOCY 49.22
Distributive: Dist:SOC; WCult:CI
WGSS 37.04 - Carceral Geographies: Explaining Mass Incarceration in the US

Why are there so many people incarcerated in the United States and why are so many people in the US and beyond calling for an end to police violence, some even for the abolition of policing? Is mass incarceration an inevitable product of slavery and Jim Crow? Why did prisons expand in the United States as crime rates were going down? Was it the War on Drugs, or the long term effects of housing discrimination?

Cross-Listed as: AAAS 90.09 GEOG 027
Distributive: Dist:SOC

WGSS 37.05 - Gender and Urban Transformation

Instructor: Rabig

This course examines the effects of urbanization on women and ideas about gender. We’ll explore the ways in which growing cities in the 19th century both accommodated and posed challenges to prevailing assumptions about gender, race, and sexuality. We’ll examine the changes women experienced as workers, mothers, radicals, reformers, consumers, and intellectuals. We will also assess their roles in the political and cultural movements that defined 20th century urban life. Students will learn critical perspectives on issues in urban history and urban studies, particularly feminist approaches to architecture, city planning, and economic development. Texts include: Judith Walkowitz, City of Dreadful Delight, Theodore Dreiser, Sister Carrie, Christine Stansell, American Moderns, George Chauncey, Gay New York, Rhonda Williams, The Politics of Public Housing, and Daphne Spain, Gendered Spaces, among others.

Distributive: Dist:SOC; WCult:CI

WGSS 37.06 - Women in Asian Cities

Instructor: Parikh

We live in a time of increasing urbanization and globalization, paralleled with prevailing poverty and uneven access to infrastructure. In this course, we will explore these issues through a focus on women across Asia. We will also examine how politics of race, class, caste, religion, and migration status shape urban experiences for these women. Major thematic areas for this course include migration, informal economies, mobility, culture, and urban nature. The class will draw on academic scholarship, newspaper articles and popular culture to introduce gendered perspectives on cities across Asia including Istanbul, Tehran, Mumbai, Hong Kong, and Manila.

Cross-Listed as: ASCL 70.17 GEOG 80.06
Distributive: Dist:SOC; WCult:CI

WGSS 40.01 - Gender Topics in Native American Life

Instructor: 21F: Palmer

This course will address a range of topics concerning gender that are of particular significance to indigenous communities. These topics will be considered from historical, political, cultural and social perspectives. In the context of this class, the term “indigenous” is a category that includes tribal nations of the United States including Hawaii, the First Nations of Canada, and the indigenous people of Australia and New Zealand. The material is presented with particular concern for the diversity of indigenous groups and the variety of their own experiences and autochthony. We will explore their responses to misconceptions of tribal gender roles and identities projected upon Native people by the agents and institutions of settler colonialism. This approach opens a broader discussion about the many actions of indigenous communities to deconstruct and decolonize gender categories that are alien to the continuity, integrity, and vitality of their own traditions. The interdisciplinary approach of this course will engage texts from philosophy, literature, semiotics, history, and policy, as well as gender studies from various socio-cultural perspectives.

Cross-Listed as: NAS 42
Distributive: Dist:SOC

WGSS 40.02 - 10 Weeks, 10 Professors: #BlackLivesMatter

This collaboratively taught course seeks to answer the call of activists around the country to examine racialization, state violence, and inequality in the context of the #BlackLivesMatter movement. To begin, it offers a context for the events in Ferguson, Missouri in 2014. Then, it situates those events in a broader history of race and racism in the United States. Finally, the course highlights black feminist and queer approaches to questions of trauma, community, politics, and survival.

Cross-Listed as: AAAS 80.05 GEOG 80.05
Distributive: Dist:SOC; WCult:CI

WGSS 40.03 - Racial Justice

This course introduces students to major contemporary racial justice debates. It also considers how theories of racial justice might better include the concerns of women of color as well as LGBT and trans persons of color. Throughout the course we will examine questions such as: What constitutes racial injustice? How is gender implicated in said injustice? What, if anything, do blacks and other people of color owe to one another? Should political possibility and pragmatism bound thinking regarding corrective racial justice?

Cross-Listed as: AAAS 21 GOVT 27
Distributive: Dist:SOC
WGSS 40.04 - Black Women's Activism, 1970-present

In this course we will explore several genres of writing, grounded in an intellectual engagement with the creative, scholarly, and activist writing of Black women of all genders from 1970 to the present. How does Black women’s activism constitute a political intellectual tradition that impacts how we do research and pose questions? How does black women’s activism refigure the categories and categorization of knowledge and knowledge production? What does it mean to write oneself into existence if and when knowledge is premised on their epistemic and actual disappearance? This course approaches Black women’s intellectual and cultural production as one entry point into the project of creating from nothing, writing to become, writing as an act of survival, and writing to envision and practice new worlds. These are all vital skills in a rapidly transforming social, economic, political and climatic landscapes.

Cross-Listed as: AAAS 88.15 GEOG 062
Distributive: Dist: SOC; WCult: CI

WGSS 40.05 - Feminist and Queer Performance at the Limit of Action

Instructor: 22W: Monson

What counts as feminist and queer activism? This course challenges what we dominantly understand as activism—key to the emergence of feminist and queer theory and ethnic studies. Moving away from political actions centered in these disciplines, such as strikes, protests, and boycotts, this course will turn to visual and performance art works by artists of color, who consider other forms of action that are not overtly visible, resistant, oppositional, agentive, militant, loud, and documentable. Each week, students will examine a performance at the limit of action, including passivity, silence, and endurance, alongside issues related to gender, sexuality, labor, and immigration among others. How might we approach and reconcile with performances that once again reify notions of racialized and gendered bodies as apolitical, passive, submissive, and compliant? Drawing on scholarship within black and women of color feminist criticism, queer theory, critical ethnic studies, American Studies, and performance studies, this course will attend students to the role of aesthetics to interrogate and expand what we typically conceive of as activism, resistance, and survival from racialized, feminized, and queer positions.

Distributive: Dist: ART; WCult: CI

WGSS 40.06 - Race and Memory: Feminist and Queer Performance Against Disavowal

“The past does things.” These words were written by José Esteban Muñoz in his 2009 text Cruising Utopia: The Then and There of Queer Futurity. This course offers an opportunity to explore how past histories of domination continue to emanate into the present. Through the lens of feminist and queer of color performance, we will engage a diverse array of aesthetic forms—including performance and installation art, literature, poetry, film, music, and new media—in order to learn how cultural practitioners use the arts to sustain life in a world framed by overlapping legacies of white supremacy, colonialism, capitalism, and heteropatriarchy. Our readings and materials will be interdisciplinary, spanning gender and queer studies, critical ethnic studies, American studies, and performance studies. Traversing 20th and 21st century cultural production, each week will be organized around artists and writers who actively engage the concept of memory as a political act against the denial or disavowal of violence. We set out to understand the social, political, and economic contexts in which artists create their work, addressing issues of race, gender, sexuality, nation, class, ability, and environmental decay. In doing so, we come to more intimately know how performances of time, memory, and trauma include a fervent belief in the potential of queer and feminist possibility. Throughout the term, students will participate in critical, creative, and collaborative assignments that will develop critical thinking, writing, and interdisciplinary engagement.

Distributive: Dist: INT or SOC; WCult: NW

WGSS 41.04 - Muslim Feminism

Instructor: Ayubi

This course introduces students to the diversity of feminist approaches on a transnational scale, by examining the movements, activism, media, literature, and Islamic debates produced in predominantly Muslim countries and beyond. We will interrogate concepts of transnationalism, feminism and modernity in terms of historical developments, theoretical usage, the context of colonialism, Islamic theologies, and the modern Muslim nation states. We will explore similarities and differences in women's experiences and feminist methodologies across global Muslim contexts. Course materials will be made up of several primary sources in translation that deal with intersectional issues such as religious and cultural practices, educational systems, politics, race and racism, socioeconomic class, legal rights for men and women, and marriage and the family.

Cross-Listed as: MES 19.02 REL 28.03
Distributive: Dist: INT or SOC; WCult: NW

WGSS 41.06 - Transnational Feminisms

Instructor: 21F: Huang

Transnational feminism, in its broadest vision, has been the project of “feminism without borders.” Rooted in intersectionality, justice, praxis, and solidarity, the banner of transnational feminism has assembled scholars and activists from diverse social and geopolitical positions through coalitions across global, regional, national, and
local borders, both within and beyond the nation-state. This course begins with genealogies of global, women of color, and postcolonial or Third World feminisms and histories of movement-building from which transnational feminism emerged. Students will be introduced to themes of universalism, solidarity, positionality, and the problems with speaking for “others,” especially Northern feminists representing women in the Global South. In the second part of the course, we turn to contemporary topics in transnational feminism, including globalization, development, war, militarism, labor, migration, climate change, and humanitarianism, and feminist mobilizing against injustice within and across borders.

Distributive: Dist:INT or SOC; WCult:NW

**WGSS 42.05 - Ethnography of Violence**

Instructor: 22S: Kivland

Violence is widely recognized as a problem in modern society, with policies and interventions to combat violence, or to employ it, dominating local and global politics. Yet the meaning of violence is seldom analyzed. Using an ethnographic lens, this course explores violence as both an embodied experience and a socially and culturally mediated event. We examine spectacular and everyday forms of violence in terms of manifestations of power, structures of inequality, perceptions of difference, and politics of representation. Ethnographic studies are drawn from, among others, Mozambique, Haiti, and Harlem. An introduction to the cultural anthropology of violence, this course raises key questions about violence in a globalized world and explores how to study it anthropologically. This course is not open to students who have received credit for ANTH 12.03.

Cross-Listed as: ANTH 28; AAAS 88.08
Distributive: Dist:TMV; WCult:CI

**WGSS 43.02 - Sex, Celibacy, and the Problem of Purity: Asceticism and the Human Body in Late Antiquity**

Instructor: 22W: MacEvitt

Late Antiquity (c. 300-500 C.E.) was a time when Christians struggled to understand how gender, family life, and religion could intermesh. Did virgins get to heaven faster than those who marry? Can a chaste man and woman live together without succumbing to lust? Were men holier than women? What about women who behaved like men? This course examines the changing understanding of the body, marriage, sexuality, and gender within Christianity through reading saints’ lives, letters, polemical essays, and legal texts. Open to all classes.

Cross-Listed as: CLST 11.06; REL 31
Distributive: Dist:TMV; WCult:W

**WGSS 43.03 - Women and the Bible**

Instructor: Ackerman

As contemporary Jewish and Christian communities of faith face the question of the role of women within their traditions, many turn to the Bible for answers. Yet the biblical materials are multivalent, and their position on the role of women unclear. This course intends to take a close look at the biblical tradition, both the Hebrew Bible (Old Testament) and the New Testament, to ask what the Bible does—and does not—say about women. Yet the course is called "Women and the Bible," not "Women in the Bible," and implicit in this title is a second goal of the course: not only to look at the Bible to see what it actually says about women but also to look at differing ways that modern feminist biblical scholars have engaged in the enterprise of interpreting the biblical text.

Cross-Listed as: REL 56; JWST 28
Distributive: Dist:TMV; WCult:CI

**WGSS 43.04 - Goddesses of India**

Instructor: Ohnuma

This course will use both elite and popular Hindu religious texts in conjunction with contemporary sociological and anthropological accounts, scholarly analyses, visual art, and film to explore the diverse identities and roles of India's many goddesses, both ancient and modern. Special emphasis will also be given to the relationship between goddesses and women. Open to all classes.

Cross-Listed as: REL 042
Distributive: Dist:TMV; WCult:NW

**WGSS 43.06 - Gender in Islam**

Instructor: 22S: Ayubi

"Is Islam sexist?" “What does Islam really say about women?” This course seeks to dismantle the premises of these questions by asking who speaks for Islam, what makes something Islamic, and how are gender and gender roles constructed in Islamic texts and Muslim thought. We will make critical study of the constructions of gender, femininity, masculinity, sexuality, gender relations, marriage and divorce in classical and modern Islamic texts. In asking how Islamic notions of gender are constructed, we will examine both the roles religious texts have played in shaping Muslim life and how Muslim life in its cultural diversity affects readings of religious texts. We will read works of Muslim thought on gender relations in their historical contexts and in relation to one another. Through in-class discussions, critical reading exercises, and short essay assignments, students will strengthen their literacy on global gender issues, study religio-historical ideas on gender, analyze the role of texts in shaping gender in society, and vice versa.
Cross-Listed as: REL 28.04
Distributive: Dist:TMV; WCult:NW

WGSS 44.03 - Women, Religion and Social Change in Africa
Instructor: 22W: Baum
This introductory, multidisciplinary course examines women's religious ideas, beliefs, concerns, actions, rituals and socio-cultural experiences in African societies and cultures from a comparative, historical and gender perspective. We will look at women's experiences of social change in African religions, the encounter with Islam, slavery, Christianity, and colonialism. We will analyze the articulations of economic and political power or lack of power in religious ideas as we ask questions such as: What are the different antecedents and circumstances in which women exercise or are denied agency, leadership, power and happiness in their communities? Texts will include nonfiction, fiction, and film narratives. Open to all students.

Cross-Listed as: AAAS 42, REL 66
Distributive: Dist:SOC; WCult:NW

WGSS 44.07 - The Struggle for Liberation: Women, Monasticism, and Buddhism
Instructor: Ohnuma
This course will examine the relationship between women, monasticism, and Buddhism through an interdisciplinary and transnational perspective. We will begin in ancient India by examining the founding of the Order of Nuns; the monastic lives, spiritual poetry, and struggles of early Buddhist nuns; and the decline and death of the nuns' order in India. Then we’ll move on to explore a wide range of topics from throughout the Buddhist world—such as the economic and political power of the nuns' order in parts of East Asia; the death of the nuns’ order and the phenomenon of low-status “unofficial” nuns throughout much of Southeast Asia; the power of yoginis and other non-monastic spiritual roles for women in Tibet; the increasing phenomenon of Western nuns; and the feminist possibilities (or impossibilities) inherent in Buddhist doctrine. The term will conclude with a sustained look at the contemporary global movement to re-establish the valid ordination lineage for nuns throughout the world—a movement in which the voices arguing “for” and “against” are not always what one might presume them to be.

Cross-Listed as: AAAS 42, REL 66
Distributive: Dist:SOC; WCult:NW

WGSS 46.01 - Philosophy and Gender
Instructor: 21F: Rosario
This course will focus primarily on the following questions: What is feminism? What is sexism? What is oppression? What is gender? Is knowledge gendered? Is value gendered? What is a (gendered) self? What would liberation be? In exploring these issues, we will examine the ways feminist theorists have rethought basic concepts in core areas of philosophy such as ethics, social and political philosophy, metaphysics, epistemology, philosophy of law, and philosophy of mind. Open to all classes.

Cross-Listed as: PHIL 4
Distributive: Dist:TMV; WCult:CI

WGSS 47.03 - Modern American Women Poets
Instructor: Zeiger
This course focuses on the emerging counter-tradition, within American modernism and within the larger tradition of poetry in English, of American women poets in the twentieth century. Taking our cue from Adrienne Rich, who ambiguously titles one book of essays On Lies, Secrets and Silences (is she for or against?), we will follow debates about what makes it possible to break previous silences--and to what degree and in what ways it is useful or satisfying to do so. Topics within this discussion will include sexuality, race, illness, literary modes, female literary succession, and relations with the literary tradition. We will read in the work of eight or nine poets and recent critical and theoretical writings, with some attention in the first weeks to important female and male precursors. The syllabus will include such writers as Edna St.Vincent Millay, HD, Gertrude Stein, Elizabeth Bishop, Gwendolyn Brooks, Sylvia Plath, Anne Sexton, Audre Lorde, Adrienne Rich, Marilyn Hacker, Louise Gluck, Rita Dove.

Distributive: Dist:LIT; WCult:W

WGSS 48.08 - Desire and Difference in 19th Century British Fiction
Instructor: 21F: Dever
This course will examine the phenomenon of moral panic in nineteenth-century British literature and culture through two linked but distinctive forms of sexual subjectivity: female heterosexuality and male homosexuality, connected forever in the 1885 Criminal Law Amendment Act that set the stage for the imprisonment of Oscar Wilde. We will consider the relationship between realist and sensationalist literary forms to trace the emergence and regulation of distinctly modern sexual subjectivities in mid- and late-nineteenth-century Britain.

Cross-Listed as: ENGL 52.05
Distributive: Dist:LIT; WCult:W

WGSS 48.09 - Nineteenth-Century British Women Writers
Instructor: Dever
This course will examine the phenomenon of moral panic in nineteenth-century British literature and culture through two linked but distinctive forms of sexual subjectivity: female heterosexuality and male homosexuality, connected forever in the 1885 Criminal Law Amendment Act that set the stage for the imprisonment of Oscar Wilde. We will consider the relationship between realist and sensationalist literary forms to trace the emergence and regulation of distinctly modern sexual subjectivities in mid- and late-nineteenth-century Britain.

Cross-Listed as: ENGL 52.05
Distributive: Dist:LIT; WCult:W
For the first time in literary history, women writers found commercial and critical success in England during the nineteenth century. Women writers of this time were keen observers of the social codes that formed—and constrained—their identities. Though women wrote in many genres in this period, this course will focus on major novels of the nineteenth century because of the particular strategies female novelists used to open up hard questions about social identity, and particularly social possibilities for women. Questions about gender clearly implicate sexuality, class, ethnicity, race, and power, as well, in complex, compelling, and unexpected ways. We will read works by Jane Austen, Mary Shelley, Emily Brontë, Charlotte Brontë, Elizabeth Gaskell, and George Eliot, and we will end the class by reading substantial excerpts from the private, unpublished diaries of the women writers who published as “Michael Field.”

Cross-Listed as: ENGL 62.03
Distributive: Dist:LIT; WCult:W

WGSS 49.06 - Women and War in Modern Arabic Literature and Film

Instructor: W22: Morsi

Women are central figures in the political upheavals of the modern Middle East. Their images have had a remarkable hold on national and international imaginations. This course examines representations of war and everyday life in literature and film produced by Arab women to understand how armed aggression and violence shape gender (and vice versa). Supplemental readings in history, geography and psychology will provide students with the proper contexts to understand the impact of colonialism, imperialism, sectarianism and decolonization on the region.

Cross-Listed as: ARAB 61.10 MES 16.08
Distributive: Dist:LIT; WCult:W

WGSS 51.07 - Memoirs and the Work They Do

Instructor: Kacandes

Memoir has been a popular genre in the United States, Latin America and Europe for at least the last twenty years. That popularity does not seem to be abating, despite critics’ claims that most recent memoirs are shallow, repetitive and badly written. In this course we will review some of the history of life writing forms, read works that have emerged in relation to young adult novels, and examine the kinds of critical and creative assignments. Texts may include The Hunger Games; the Harry Potter series; Are You There God, It’s Me Margaret; The Outsiders; The Astonishing Life of Octavian Nothing; Vivian Apple at the End of the World; Fangirl; Aristotle and Dante Discover the Secrets of the Universe; Absolutely True Diary of a Part-Time Indian; The Fault in Our Stars; Ship Breaker; Long Division; Monster; Akata Witch; Make Your Home Among Strangers.

Cross-Listed as: ENGL 54.03
Distributive: Dist:LIT; WCult:CI

WGSS 51.10 - Narratives of Un-belonging: Bad Asians, Queer Texts

Instructor: 22S: Stuelke

What makes an Asian/American “bad” and what makes a text “queer”? How does one shed light and offer insight on the other? How might the “bad” and the “queer” name the refusal and failure to assimilate and align oneself with racial capital, settler colonial logics, and reproductive futurity? How might both terms require us to rethink what narratives of belonging look, feel, and sound like and in turn, become the grounds for alternative solidarities, affiliations, and intimacies across lines of minority difference? To answer these questions, we will engage with primarily contemporary Asian/American works of literature, poetry, film, performance, and art that alters, disrupts, and varies Asian/American narratives of migration, assimilation, and upward mobility. Through these works, we will address historical processes of Asian/American racial, gender, and sexual formation by way of the “bad” and the “queer,” as transformative
political and aesthetic categories of inquiry that risk failing to fit in, being wrong, and not belonging.

Cross-Listed as: ENGL 53.38
Distributive: Dist:LIT; WCult:CI

WGSS 52.04 - Arts Against Empire: Fictions of Revolution and Solidarity in the Americas
Instructor: 22W: Stuelke

Anticolonial struggle and movements for social justice have always been accompanied by a range of cultural practices, including fiction, art, music, film, murals, theater, graffiti and theory. This course explores that tradition of cultural activism considering attempts to narrate revolutionary formation, imagine solidarity, and write decolonial history. We will begin by examining revolutionary nationalist and anti-imperialist culture in the Americas—ranging from the memoirs of Che Guevara and Malcolm X to Nuyorican and Chicano Movement literature—in order to consider the formation of revolutionary subjects, and how 20th century ideas of revolution were raced and gendered. We will then consider how novelists, artists, photographers, filmmakers, and activists attempted to imagine solidarity with revolutionary movements and suffering others in the Americas, from Central America solidarity photography to performance art in solidarity with Guantanamo Bay prisoners. We will pay special attention to the work of feminist and queer solidarity artists, writers, and performers. Finally, we will examine contemporary activist cultural projects, such as PanAmerican public art road trips and hashtag-activism. Students will have the opportunity to produce a creative or multimedia final project.

Cross-Listed as: ENGL 63.04
Distributive: Dist:INT or LIT; WCult:W

WGSS 52.05 - Women, Representation, Power: Writing India, Then and Now
Instructor: Beasley

How are global relationships shaped by what and who we read? We come to these relationships with preconceptions, often created primarily from our encounters with others that are mediated through language. In this course, we will examine how knowledge is constructed through language using India as a case study. This course is directly related to Dartmouth’s program in Hyderabad, India. Our focus will be on the representation of women and female agency in this case study of India as we explore how knowledge is created, by whom, and to what ends. Language is a powerful instrument. We will analyze how language has been and is currently used to portray India, as we will think critically about how our perceptions of India have been shaped by what we have read, heard, and seen. Some questions we will address are: How have images of India been constructed over time? To what ends? What impact has colonialism had on how India was portrayed to the west? How did/do Indian writers use language to reclaim their country? How is feminism defined in India? How can we understand female agency in the Indian context? What role have women in India played and how has this female agency been incorporated into or excluded from representations of India developed into the subcontinent as well as outside of it?

Distributive: Dist:SOC; WCult:NW

WGSS 52.06 - Black Queer & Trans Futures: An Experiment

Engaging with the histories and present realities of colonial dispossession, racial violence and cis heteropatriarchy on campus and beyond, we will examine and craft visions of alternative futures grounded in prison abolition. Drawing on archival research, critical theory and speculative fiction from Black queer and trans thinkers such as Miss Major, Edouard Glissant, Marie Vieux-Chauvet, Octavia Butler, and Samuel Delany, our goal will be to challenge our current carceral order, chart how we move past it, and imagine what liberatory prison abolitionist futures lie beyond.

Cross-Listed as: AAAS 32.02 AAAS 67.80 FRIT 37.05
Distributive: Dist:SOC; WCult:CI

WGSS 53.05 - The Poetry and Rhetoric of Love, from Petrarch to Social Media
Instructor: 22S: Zeiger

What we call "love poetry" has generally been a way of expressing much more than the emotional and erotic fascination of one person with another. Often it seems to bypass the love-object altogether, and focuses instead on power relations or poetic achievement. Beginning with early examples, and moving on to contemporary and modern poems, our course will place love poems by men and women in the context of an ongoing poetic tradition, recent feminist criticism and theory, and talk about love and sex in recent popular culture. This last will include: excerpts from recent books about dating and seduction, film, contemporary song lyrics, dating websites, and campus culture.

Cross-Listed as: ENGL 65.06
Distributive: Dist:LIT; WCult:W

WGSS 53.07 - Language, Gender & Sexuality
Instructor: 22S: Billings

This course will introduce students to foundational and current thinking about the connections among language, gender, and sexuality, from readings in linguistics, sociolinguistics, linguistic anthropology, and feminist theory. A cross-cultural approach will characterize the class, and units will link language, gender and sexuality to
themes such as power, (in)equality, and identity. Students will also be encouraged to consider the significance of gender and sexuality in the context of quotidian language use.

Cross-Listed as: ANTH 044
Distributive: Dist:SOC

WGSS 56.03 - Family Matters: Pedro Almodóvar, Gender Reversals, and New Communities
Instructor: Martin

Pedro Almodóvar Caballero, Spain's most internationally acclaimed filmmaker will be studied in this course as representative of what critics have termed the New Spanish Cinema Movement. Almodóvar's filmmaking, both in aesthetic and cultural terms, addresses issues which will appeal to students interested in understanding how culture, politics, and aesthetics get entangled in ways that “queer” gender identity, family structures, notions of community and the societal expectations and limitations surrounding them. The course will also compare his work with other contemporary filmmakers that have reconfigured in their films the boundaries of “family.”

Cross-Listed as: FILM 43.02
Distributive: Dist:ART; WCult:CI

WGSS 57.01 - Data and Bodies
Instructor: 22W: Wernimont

In this course we will take a multi-modal approach to understanding relationships between “datafication” and human bodies. Today’s “Datafication” is a process of transforming diverse processes, qualities, actions and phenomena into forms that are machine-readable by digital technologies, but the act of turning humans and human bodies into quanta of information has a long history. We will be using art, new media, history, information science, and more to think through the impact that datafication has on how we understand ourselves and others. Particular attention will be paid to the ways in which data has historically been used in racializing and gendering ways, and the role that quantification of people has been integral to the development of the Western nation-state.

Cross-Listed as: FILM 48.03
Distributive: Dist:SOC

WGSS 58.05 - Women in Art

This course will explore the complex and varied roles of women in the arts: as artists, patrons, “muses,” and cultural critics. We will examine the structural conditions of art making in the academy and the studio, the market and the exhibition. We will investigate gendered notions of genius, creativity and originality, including the status of women artists as “exceptional.” Looking also at the female nude in Western art and feminist art in post-modernism, we will analyze the roles that femininity and masculinity play in modernism. With a focus mostly on the 18th-20th c., major figures include Artemisia Gentileschi and Judith Leyster, Mme de Pompadour, Elisabeth Vigée-LeBrun, Mary Cassatt, Berthe Morisot, Frida Kahlo, Barbara Kruger and Cindy Sherman, among others.

Distributive: Dist:ART; WCult:W

WGSS 59.04 - Race, Gender, and Performance

Students will explore the perspectives of contemporary Latina/o, Asian American, Black, and Native American theater artists/performers. Our examination will also consider the socio-historical and political contexts engaged through these artists' works. We will also consider the relationship between the construction of identity and strategies of performance used by playwrights/performers to describe race, gender, sexuality, class, subjectivity, and ideas of belonging. Texts examined will include works by Moraga, Highway, Wilson, Parks, Gotanda, and Cho.

Cross-Listed as: THEA 021
Distributive: Dist:ART; WCult:CI

WGSS 61.06 - Feminist Perspectives on Reproductive Ethics
Instructor: Bumpus

This class focuses on ethical issues concerning human reproduction. Some of these issues are familiar: Is abortion moral? Is sex-selection ethical? Other issues may be less familiar: Does prenatal testing express a negative message about living with disability? Is there anything wrong with aiming to have a deaf child? Yet other issues have arisen with the commercialization and globalization of reproduction: Is there anything wrong with selling one’s reproductive labor? Is it ethical to ‘outsource’ pregnancy to Indian surrogates? We will start by looking backward to ethical issues around the introduction of contraception; we will end by looking forward, to the promise of same-sex reproduction through in vitro-gametogenesis, and reproduction via artificial gestation. While we will consider numerous perspectives on each issue, special consideration will be given to feminist viewpoints.

Cross-Listed as: PHIL 04.01
Distributive: Dist:TMV

WGSS 62.02 - A Global History of Sexual Science
Instructor: Fuechtner

This course provides an introduction to the global history of sexual science from the late 19th Century through the mid-20th Century. The beginnings of scientific approaches to sex, gender and sexuality were very diverse and thus we will read—among others—historical medical, psychiatric, anthropological, journalistic, philosophical and literary texts. Scientific notions of sexuality did not simply
migrate from the “West” to the “rest,” but developed as a result of complex, mutually constitutive interactions and global networks. The field of sexual science emerged not just in Europe and North America but in a variety of places, such as India, Chile, or China. Its proponents in different parts of the world were intensely aware of each other and interacted through publications, conferences, or travel. Moreover, proponents of sexual science in Europe and North America adopted notions forged in exchange with actors in Asia, Latin America and Africa, e.g., the US practice of gender reassignment surgery was heavily influenced by earlier Mexican cases or the German legal understanding of homosexuality was tested and contested in its colonial African courts. We will study many figures who have been forgotten in contemporary work on sexuality or sexual science. Some of these figures drew from the repressive legal, social and cultural discourses that limited sexual expression and gave the ideological grounds to discrimination and persecution. But others—and they were at times the very same figures—connected to the liberating discourses, the power of which we are experiencing today.

Distributive: Dist:INT or SOC; WCult:NW

WGSS 62.04 - Women and the Making of Science
Instructor: Wernimont
This seminar course will consider the role of women in the history of science from two perspectives: first, women as the often eroticized objects of scientific inquiry and second, women as scientists or natural philosophers whose work was frequently derided or obscured behind the names of fathers, husbands, brothers, and/or coworkers. We will read primary texts in the anatomical, astronomical, mathematical, and physical sciences, along with contemporary theory on gender, science, and Anglo-American cultures. Please note that the construction of the gender binary and notions of biological race are very much at the fore of this course but are not taken as a ‘natural,’ given, or stable quality. The history of science is HUGE, so we’ll take two areas as focal points for the course: bodies as sites of knowledge and mathematical sciences.

Distributive: Dist:SOC; WCult:CI

WGSS 65.04 - Queer Visual Culture
Instructor: 22X: Dietze
This seminar will look into the cultural history of queer aesthetics. The subjects are mostly moving images (cinema, TV and video), activist performances and some aspects of visual art. The starting-point is the simultaneous 'invention', disease mongering (pathologization) and 'emancipation' of homosexuality in the European fin de siècle and how it is negotiated in educational and feature films. The syllabus moves then to figurations of queerness in popular (and queer) imagination, for instance the 'Drag Queen' or the 'Vampire' with special attention on the AIDS crisis and will finally focus on gender-ambivalence, transgender, and gender-bending performances such Butch-Femme aesthetic or Glam-Rock. A general tension will be observed between 'The Epistemology of the Closet' (Sedgewick), Mainstreaming Queerness and an effort on part of activists to use queer visual culture as a tool for political intervention.

Distributive: Dist:ART; WCult:CI

WGSS 65.06 - Radical Sexuality: Of Color, Wildness, and Fabulosity
Instructor: 21F: De Berry
This course examines how issues of race and sexuality are elemental to radical formulations of queer theory. We will begin with a deep study of U.S. feminist and queer of color critiques to understand how social formations are embroiled in nationalist, colonial as well as free market ideals and practices. Our focus on the quotidian and staged experiences of those who identify or are identified as an outsider, misfit, or the Other is an invitation to intensively analyze and perform what it means to be at once queer and gendered, queer of color, and queer and wild. From accents and affects to styling and production, we will read a range of manifestos, performances, literature, and art that conform to and yet also deviate from what is normal or acceptable in mainstream, U.S-American society. The key words in the title, "Of Color, Wildness and Fabulosity," are suggestive of alternative queer practices in the U.S. and around the world that engage, exceed or even explode dominant categories of race, gender and sexuality. It explores, in other words, queer theory and praxis using diasporic perception or minority perspectives.

Distributive: Dist:INT or ART; WCult:NW

WGSS 65.07 - Queer Popular Culture
Instructor: Lim
This course explores queer popular culture in the performing and media arts, from expressive visual and sonic cultures that include film, performance, music and television to museum and fashion shows, and street carnivals. We will look at conceptions of queerness that play with hyperbolic genders, sexualities and racializations, and interrogate their value, significance and meaning as cultural and/or political expressions. Is queer popular culture a way to sell LGBT life styles as metrosexual taste, or is it a way to challenge the heteronormative mandates set by the market, the state, and their regulatory institutions?

Distributive: Dist:INT or SOC; WCult:CI
WGSS 66 - Special Topics in Women's, Gender, and Sexuality Studies
This rubric catches courses that do not fit under other existing rubrics or have an experiential component. It should not appear in the ORC

WGSS 66.01 - Times of Crisis
Instructor: Martin
In this course, we will engage in an interdisciplinary study of the topic of "crisis" in its many manifestations: from the erosion of justice, social inequities, and their effects on individuals, families, and communities to the exhilarating moment of transformation all moments of crisis offer. We will debate and ground systemic analysis and change in the insights offered by critical social and gender-based theory, activism, and the arts.

Distributive: Dist:SOC; WCult:CI

WGSS 66.02 - Social Justice and Computing
Instructor: Instructor: 22W: Wernimont
This course draws on feminist and queer scholarship to examine the intricate relationship between datafication, ubiquitous computing, and social justice, highlighting the politics and impacts of data-driven processes and big data on human lives. One of the key highlights of WGSS engagements with computing history is the focus on the politics and impacts of data-driven processes and big data on human lives. The course will provide a brief introduction to histories of computing and data-driven practices within the Anglo-American tradition, including discussions of the roles that ethics and biopolitics play within these histories. We will explore ways that privacy/security, algorithmic processes, computational environmental impacts, and design have exploited the most vulnerable while increasing affordances for the most privileged. We will also spend significant time learning about new data/computational justice initiatives and develop a robust understanding of how social justice issues like prison abolition, climate change, and equitable health outcomes are at the core of understanding computational cultures. No Computer Science or Data Science background is required, but the course will entail learning about some of the technical history within both fields. Similarly, there are no WGSS prerequisites for the course but students will be responsibly for learning about anti-racist feminist and queer methods and insights.

Cross-Listed as: FILM 48.04
Distributive: Dist:SOC

WGSS 66.03 - Transnational Migration: Critical Ethnic, Indigenous and Queer Crossings
This course introduces undergraduate students in programs across the college to research practices, theories and methodologies commonly used in cultural analysis, with the intent of increasing their knowledge of the interdisciplinary fields of critical ethnic and gender studies around the theme of migration. Students will read a range of texts, performances, films and learn the different approaches that migration has come to shape transnational sensibility. The course is designed to individual research/analysis projects to emerge around various constellations of issues, such as where questions of 'queer' and ‘migrations’ intersect, or figures of diaspora, the undocumented and the transmigrant meet. This mode of investigation will enable students to develop research interests in cultural processes, discourses and forms across a range of historical periods, on diverse topics (neoliberalism, disability, humanitarian violence, security/securitization, war, terror, prison, border, law, etc.), and in conversation with interdisciplinary themes that are organized by the week. Students will be introduced to the key debates in the field as they interrogate social and political apparatuses of power (sexism, racism, classism, xenophobia, homophobia/heterosexism, transphobia, ableism, and others), and how those apparatuses determine which migrant bodies are recognized and valued both in the United States and the rest of the world.

Distributive: Dist:INT or ART; WCult:CI

WGSS 66.04 - Introduction to Black Feminist Thought
Instructor: 22W: De Berry
What is Black Feminist Thought? Why Black Feminist Thought? And just whom is Black Feminist Thought for? This course considers the disciplinary formations and political happenings of Black Feminist Thought in the United States—from its role in the university department to its presence on the ground. Highlighting interlocking issues related to gender, sexuality, race, and economics, we will mine political speeches, visual art, live performance, literature, and theoretical discourse.

Distributive: Dist:SOC; WCult:CI

WGSS 66.05 - Telling Stories for Social Change
Instructor: 22S: Hernandez
Telling My Story for Social Change uses readings in theory and practice (journals, exercises, performance) to explore the difficult themes of Race, Class, and Gender. By practicing listening, speaking and withholding judgment in a group, we build relations based on trust, communication, and dialogue. To do this, we must first identify and dismantle the visible and invisible walls of preconception and bias that surround us, which many times we actively help to create and maintain.

Cross-Listed as: ENGL 53.04
Distributive: Dist:ART; WCult:CI

WGSS 66.05 - Telling Stories for Social Change
Instructor: 21S: Hernandez
Our social structure is full of unseen, unspoken, and unheard dynamics that create visible and invisible social walls. Students in this course have the unique opportunity to collaborate with a group of people from behind those social walls from two different perspectives: theoretical and practical. Students study the causes of this invisibility and social isolation (mainly pertaining to incarceration and addiction) by participating in an interdisciplinary arts program with local community members from these invisible populations while at the same time attending discussion-based seminars. This combination of practice and theory asks for students to go beyond a critical reflection on our society by contributing to constructive social actions towards change.

Cross-Listed as: ENGL 53.04
Distributive: Dist:ART; WCult:CI

WGSS 66.06 - Bodies and Technologies in Asian American Popular Cultures
Instructor: 21X: Mayer

From film, TV, and social media to the fringe punk scenes in between, this course explores the popular cultures of contemporary “Asian America.” By centering the bodies/embodied practices and technologies that produce Asian American popular cultures, we will ask historical questions about representation, power, and access, all with close attention to moving categories of race, gender, sexuality, class, and trans/nationalism. Ultimately, popular cultures—the critical, the joyful, and the terrible—will be our guide.

Distributive: Dist:ART; WCult:CI

WGSS 66.07 - African Diaspora Women Writers
Instructor: 22W: Brown

This course will be organized around four themes prevalent in contemporary portrayals of Black women across the African diaspora. The themes, Body, Voice, Memory, and Movement provide a center from which discussions of agency, representation and counter-narrative can be situated within a larger discourse of canon formation. We will explore various parts of the United States and the Caribbean through analyses of literature and visual culture, paying particular attention to shifting dialogues of culture and identity. Among the central questions posed will be: What constitutes a feminist ideology in black women’s literature? How are images of subjection and victimization re-appropriated by Black women writers and image-makers and utilized for their own empowerment? What are the penalties inherent when a Black woman “comes to voice” in the arena of self-representation?

Cross-Listed as: AAAS 67.06 ENGL 53.47
Distributive: Dist:LIT; WCult:CI

WGSS 66.08 - Self, Subject, Photography
Instructor: 22S: Brown

Before the oft-reproduced social-media mechanism of the selfie, there existed (and still does) the artistic self-portrait. Utilized in the creative realm to create a representation of the artist as both subject and object, self-portraits can be whimsical, grim, tantalizing, performative, or combative. In this course we will examine gendered constructions of self-portraiture as they exist in poetry, memoir, and photography. Specifically, our task will be to examine the registers of possibility present when women use their bodies and stories to claim authorial space. Our goal during the term will be to think through all of the mechanisms of the self that are deployed in the context of artistic practice. Students will produce their own photographic self-portraits and write an analytical paper on a contemporary writer or visual artist.

Cross-Listed as: AAAS 67.09 ENGL 63.29
Distributive: Dist:ART; WCult:CI

WGSS 66.09 - Black Consciousness and Black Feminisms
Instructor: 22S: Neely

This seminar seeks to decenter mainstream (what bell hooks calls “imperialist, white supremacist, capitalist, [heteronormative], patriarchal”) thinking to understand the world differently. Reading primary and scholarly texts from the US, Caribbean, and Africa about the Black Consciousness Movement and black feminisms, we will trace the evolution of thinking about race, gender, sexuality and their interrelationships through time and across space. Assignments include weekly reading response papers and an independent research project.

Distributive: Dist:SOC; WCult:CI

WGSS 67.01 - Freud: Psychoanalysis, Jews, and Gender (in English)
Instructor: 21F: Fuechtner

This course will examine how Freud’s own writings, his biography, and his biographers have \textshaped the perceptions of psychoanalysis as a specifically Jewish theory and practice. Through a reading of Freud’s texts on gender, sexuality, and religion, we will trace the connects between psychoanalysis, Jewishness, and gender that have impacted theoretical discussion. We will explore critique, including Horney, Reich, and Marcuse, and recent debate on the status of Freud in the U.S.

Cross-Listed as: GERM 42.06 JWST 051
Distributive: Dist:SOC; WCult:CI
WGSS 67.04 - Humanities and Human Rights: Thoughts on Community
Instructor: Martin

This course will focus on the deep connections between democracy and the role of the arts in the public sphere. We will focus on the work of artists who deem that the role of their creations is to generate dialogue around issues of social justice. We will study the work of writers, filmmakers, documentarians, photographers, and poets, individuals, who make "energy" (intellectual energy) usable in different places and contexts. This course will cross disciplinary boundaries and follow the "comparative method" scrupulously. We will be reading literature with care and learning how to read literarily—with intensive textual scrutiny, defiance, and metatheoretical awareness—a wide array of theoretical, visual and filmic texts.

Cross-Listed as: COLT 57.08; INTS 17.08
Distributive: Dist:INT or ART; WCult:CI

WGSS 67.05 - Feminist Theory

This seminar is designed to provide a overview of significant themes and debates within feminist theory. It is organized around several topic areas - most centrally intersectionality and the Body (including the racially marked body, the covered body and the body in motion, across both national and gender boundaries).

Cross-Listed as: AAAS 020 GOVT 86.35
Distributive: Dist:SOC

WGSS 80 - Seminar in Women's, Gender, and Sexuality Studies
Instructor: 21F: Lim

The seminar in Women’s, Gender, and Sexuality Studies is designed as a culminating experience for Women’s, Gender, and Sexuality Studies students and preparation for future work such as independent research, honors thesis, graduate studies and advanced scholarship.

Distributive: SOC

WGSS 85 - Independent Study

This will involve an independent project carried out under the direction of one or more of the Women’s, Gender, and Sexuality Studies faculty. Permission of the instructor and the WGSS Chair and Steering Committee is required.

Prerequisite: Permission of the instructor and approval of the WGSS Chair and Steering Committee.

WGSS 96 - Advanced Research in Gender Studies

This course is WGSS's curricular connection with the Gender Research Institute's annual spring research seminar. Each offering of WGSS 96 will center on texts written or created by GRID's guest speakers and complemented with other relevant theoretical, critical, or artistic material. Students matriculated in WGSS 96 will automatically be considered GRID Fellows and will have the opportunity of meeting and directly engaging in conversation with the authors and artists studied in the course. In addition to regular class sessions, students will also attend the GRID seminar meetings and public lectures. Students will be expected to produce a publishable paper on a topic of their choice as it relates to the theme of the seminar. Final projects may be co-authored with any GRID Fellow. Prerequisites: Major and Minors in WGSS; or Permission by Instructor

WGSS 98 - Honors Thesis I

This two-course sequence involves an extensive investigation of a topic in a student's area of concentration and submission of an undergraduate thesis. Only students accepted into the Honors Program may take this sequence. Permission of the instructor and the Steering Committee is required.

WGSS 99 - Honors Thesis II

This two-course sequence involves an extensive investigation of a topic in a student's area of concentration and submission of an undergraduate thesis. Only students accepted into the Honors Program may take this sequence. Permission of the instructor and the Steering Committee is required.

Institute for Writing and Rhetoric

Director: James E. Dobson
Assistant Director: Mark Koch


The Institute for Writing and Rhetoric courses include the first-year writing courses (WRIT 2 - WRIT 3, WRIT 5), and the First-year Seminars), courses in Speech, and advanced courses in writing. The Institute for Writing and Rhetoric also includes peer-tutorial programs that support students in their writing, research, and new media activities.

To view Speech courses, click here.
To view Writing courses, click here.
First-year Writing and First-year Seminar Requirements

All first-year students are required to fulfill Dartmouth’s first-year writing and first-year seminar requirements. Through the first-year writing courses, the College offers entering students a valuable opportunity to develop the thinking and writing abilities that characterize intellectual work in the academy and in educated public discourse.

First-year Writing Requirement

The first-year writing requirement at Dartmouth is satisfied by taking Writing 5 or its approved equivalents. Approved equivalents include: Writing 2-3 with Teaching Assistant Support, a new pilot version of Writing 2-3: Writing Across the Disciplines, and Humanities 1 (HUM 1 (p. 470)).

The Writing 5, Writing 2-3, and Humanities 1 courses do not serve in partial satisfaction of the General Education Requirements (Distributive or World Culture Requirements). Writing 2-3 is a two-term, two-credit course offered in fall and winter taken in place of Writing 5. Students must successfully complete both terms of Writing 2-3 to fulfill the first-year writing requirement.

First-year Seminar Requirement

The first-year seminar requirement is satisfied by taking a First-year Seminar or Humanities 2 (HUM 2 (p. 470)).

Beginning in the 2021-2022 academic year, First-Year Seminars do not satisfy General Education requirements (Distributive or World Culture Requirements). First-year Seminars are open only to first-year students. First-year students are permitted to enroll in a second seminar within the limit of sixteen students per course after all students who have not yet met the requirement have had a chance to elect a seminar.

Students should keep in mind three scheduling guidelines regarding First-year Seminars:

1) Successful completion of Writing 5 (or its approved equivalents) is a prerequisite for enrollment in a First-year Seminar (or Humanities 2).
2) The First-year Seminar (or Humanities 2) must be taken during the first year, in the term immediately following completion of Writing 5 (or its approved equivalents).
3) A student is not eligible to take part in an off-campus program until the First-year Seminar (or Humanities 2) is completed.

Individual section descriptions for Writing 5 and course descriptions for First-year Seminars are posted prior to registration for a given term. Links to these descriptions can be found on the Registrar's website at the bottom of this page: http://www.dartmouth.edu/reg/registration/

For more information about the first-year writing and first-year seminar requirements and placement and enrollment policies for Writing 2-3, Writing 5, and First-year Seminar, visit: http://writing-speech.dartmouth.edu/curriculum/placement-and-enrollment-policies

Speech

Speech courses are open to all students, across majors and class years, and do not have prerequisites. Speech courses offer students the opportunity to engage in advanced study and practice of communication/rhetoric, with special emphasis on spoken/oral communication, including dialogue, across contexts (e.g., health, law), issues, and epistemologies.

SPEE - Speech Courses

To view Speech requirements, click here (p. 720).

SPEE 20 - Public Speaking

Instructor: Compton, Drummond, Grushina

This course covers the theory and practice of public speaking. Building on ancient rhetorical canons while recognizing unique challenges of contemporary public speaking, the course guides students through topic selection, organization, language, and delivery. Working independently and with peer groups, students will be actively involved in every step of the process of public speaking preparation and execution. Assignments include formal speeches (e.g. to inform, to persuade, and to pay tribute), brief extemporaneous speeches, speech analyses, and evaluations. Limited enrollment. No prior speaking experience is necessary.

Distributive: ART

SPEE 25 - Persuasive Public Speaking

Instructor: Compton

This course explores persuasive public speaking and helps students learn to craft messages of influence. Approaching persuasive public speaking as transactional, students will engage in audience analysis during speech invention, organization, language choices, and delivery. Assignments include formal speeches (to convince and to actuate), brief extemporaneous speeches, speech and argument analyses, and peer speech evaluations. Peer group work will facilitate speech preparation and provide a forum to audition arguments and ideas. Limited enrollment. No prior speaking experience is necessary.
Distributive: ART

**SPEE 26 - New Media Communication**

Instructor: Grushina

This course investigates social media, virtual worlds, transmedia, digital art and NFTs, and other new media technologies through critical reflection on the ways these technologies are shaping and reshaping our personal and professional lives. We will draw on communication and media studies as well as rhetorical theory and research to help us understand and analyze these contexts. You will engage with new media via projects that invite you to participate in existing contexts, create new ones, and display and create knowledge through speeches, writing, and communication design.

Prerequisite: No prerequisites.

Distributive: Dist:ART

**SPEE 27 - Intercultural Communication**

Instructor: Drummond

In our increasingly diverse world, cultural and intercultural literacy is an urgent necessity, not an option. To help fulfill this exigency, the goal of this class is for students to explore how diverse underlying cultural orientations and patterns influence communication behaviors within and between cultures. Theoretical and practical aspects of intercultural communication will be addressed with a focus on how students can apply alternative communication strategies that result in deliberate and fruitful intercultural outcomes. No prerequisites. Limited enrollment.

Distributive: Dist:SOC; WCult:CI

**SPEE 30 - Speechwriting**

Instructor: Compton

This course explores speechwriting as a process. Students will work independently and in peer groups to write speeches for themselves and for others. Students will also deliver speeches. Throughout the course, students will compare speechwriting with other types of writing, celebrating the unique challenges of writing for the ear. Limited enrollment. No prior speaking experience is necessary.

Distributive: ART


Instructor: Grushina

Contemporary social movements in the U.S. bear strong resemblance to those in the past in that social protests have, and continue to be, definitively rhetorical. This course focuses on theorizing the relationship between rhetoric and social movements from a historical and contemporary perspective. Our focal point will be rights-based campaigns of movements seeking socio-political legitimacy and equality. The course will also explore the pivotal role strategic communication plays in effective advocacy. No prerequisites. Limited enrollment.

Distributive: Dist:ART; WCult:CI

**SPEE 33 - Political Humor Rhetoric: Contemporary Television**

Instructor: Compton

It is tempting to dismiss late night television comedy as inconsequential. And yet, empirical research reveals that political humor affects knowledge, attitudes, and behaviors. In this class, we will survey extant research findings to evaluate late night political humor’s content and effects, using social scientific and rhetorical theories to better understand how, and in what ways, late night television political comedy matters. Speaking and writing projects will be used to achieve course objectives. No prerequisites.

Distributive: SOC

**SPEE 34 - Image Rhetoric: Image Attack, Image Repair, and Image Promotion**

Instructor: Compton

Image is an important and complicated part of communication. Rhetoric can build image, and rhetoric can tear down image. Rhetoric can attack image, and rhetoric can defend image. Each focus of this course (image attack, image repair, image promotion) builds on classic and modern work in apologia and persuasion, including studies of politics, entertainment, and commerce. Speaking and writing activities will broaden our ideas about image. No prerequisites.

Distributive: SOC

**SPEE 36 - Organizational Communication and Sustainability**

Instructor: Grushina

This course examines the theories, discourses, and practices of organizational communication and sustainability. We will draw on communication and rhetorical theory and research to understand the complex dynamics of contemporary organizational contexts. We will use case studies to interrogate the challenges and opportunities that global organizations face in pursuit of sustainable development and learn as well as develop theory-based strategies for maximizing such growth and improving the communication of organizations and their stakeholders. Discussions will focus on concepts of global teamwork, glocalization, civil regulation, agency, and corporate social responsibility (CSR), among others.

Prerequisite: No prerequisites.

Distributive: Dist:SOC
SPEE 37 - Health Communication  
Instructor: Drummond  
This course is designed to provide a broad introduction to human communication in a health-care context. We will examine basic medical models, the roles of health professionals, patients and caregivers, social and cultural issues, communication in health organizations, and the role of mass media. Emphasis will be on the social analysis of social support, ethics, organizational culture, planning health promotion campaigns, cultural conceptions of health and illness, and social scientific theory.  
Prerequisite: No prerequisites.  
Distributive: SOC

SPEE 40 - Resistance To Influence: Inoculation Theory-Based Persuasion  
Instructor: Compton  
This course revisits a classic theory of resistance to influence: inoculation. Inoculation theory is unique. Instead of offering ways to enhance persuasion, inoculation offers resistance to persuasion. We will trace inoculation's development; reconsider some of its assumptions; explore its application in contexts of health, politics, and marketing; and discuss ethics of resistance-based message strategies. Writing and speaking projects will guide our consideration and analysis of this underexplored dimension of rhetoric. Limited enrollment. No prior speaking experience is necessary.  
Distributive: SOC

WRIT - Writing Courses  
To view Writing requirements, click here (p. 720).  

WRIT 2 - Composition and Research: I  
Instructor: The staff.  
The course description is given under WRIT 3. This course and WRIT 3 are open only to first-year students invited after an on-line placement process to participate in the Integrated Academic Support program. Normally, students enrolled in WRIT 2 will continue with WRIT 3, but in rare cases may instead take WRIT 5.  

WRIT 3 - Composition and Research: II  
Instructor: The staff.  
This two-term course in first-year composition works on the assumption that excellence in writing arises from serious intellectual engagement. To achieve this excellence, WRIT 2 - WRIT 3 enrolls students into intensive, seminar-style classes in which literary and other works (including the students' own) are read closely, with attention to substance, structure, and style. The primary goal of WRIT 2 is for students to learn to write clearly and with authority. By submitting themselves to the rigorous process of writing, discussing, and rewriting their papers, students come to identify and then to master the essential properties of the academic argument. In WRIT 3, students engage in the more sustained discourse of the research paper. These papers are not restricted to literary criticism but might employ the research protocol of other academic disciplines. Throughout the reading, writing, and research processes, students meet regularly with their teaching assistants and professors, who provide them with individualized assistance. Note: Writing 2-3 is taken in place of Writing 5. Students must complete both terms of Writing 2-3 and a First-year Seminar to fulfill the first-year writing requirement. Students who take the WRIT 2 - WRIT 3 sequence defer their First-year Seminar until the spring term. Writing 2-3 does not serve in partial satisfaction of the Distributive Requirement.

WRIT 5 - Expository Writing  
Instructor: The staff.  
Founded upon the principle that thinking, reading, and writing are interdependent activities, WRIT 5 is a writing-intensive course that uses texts from various disciplines to afford students the opportunity to develop and hone their skills in expository argument. Instruction focuses on strategies for reading and analysis and on all stages of the writing process. Students actively participate in discussion of both the assigned readings and the writing produced in and by the class. Note: Enrollment limited to 16. WRIT 5 (or its two-term equivalent WRIT 2 - WRIT 3 or HUM 1) is required for all first-year students. It never serves in partial satisfaction of the Distributive Requirement. Individual section descriptions for WRIT 5 are posted prior to registration for a given term. Links to these descriptions can be found on the registrar's website at the bottom of this page: http://www.dartmouth.edu/~reg/registration/
their understanding and practice of public persuasion, as well as their capacity to analyze the components of effective argument.

Prerequisite: PBPL 5 or permission of instructor.

Cross-Listed as: PBPL 041

Distributive: Dist:ART; WCult:W

**WRIT 43 - The Written Judicial Opinion**

Instructor: Sargent

This course studies the structure, content, format, and organization of the written legal opinion, along with an introduction to judicial procedure and process. Students will analyze several historically and socially significant United States Supreme Court opinions in order to understand how and why they constitute “the law.” Additional readings will contextualize the assigned written opinions. Other topics include how judges write their legal opinions, which factors judges consider when they write judicial opinions, and how the political and social norms and trends affect and influence judicial opinions. Students will learn the technical skills of judicial opinion writing and comprehend the structure and purpose of the American judicial system. This class is recommended for those interested in writing, law, and the American judicial system, and is especially appropriate for those students considering a career in law.

Prerequisite: WRIT 5 or its approved equivalents (WRIT 2 - WRIT 3 or HUM 1).

Distributive: SOC

**WRIT 44 - Writing and Science**

Instructor: Harper, Smith

This writing-intensive course examines selected topics in scientific communication. The topics include writing and speaking science, poster presentations, grants writing, and other forms of scientific communication for scientific and non-scientific audiences. Students will read and analyze scientific literature, study the theory of science and communication, work with existing data, develop strong advanced writing processes, analyze and employ effective rhetorical decisions for different audiences, analyze the relationship between form and content, and produce different kinds of scientific documents and presentations.

**WRIT 44.01 - Life Sciences Writing and Communication**

Instructor: Smith

This writing-intensive course examines selected topics in scientific communication. The topics include writing and speaking science, poster presentations, grants writing, and other forms of scientific communication for scientific and non-scientific audiences. Students will read and analyze
Biochemistry & Cell Biology - Graduate

Chair: Charles K. Barlowe

Professors C. K. Barlowe (Biochemistry & Cell Biology), T. Y. Chang (Biochemistry & Cell Biology), D. A. Compton (Biochemistry & Cell Biology), J. C. Dunlap (Molecular & Systems Biology and Biochemistry & Cell Biology), S. A. Gerber (Molecular & Systems Biology and Biochemistry & Cell Biology), L. P. Henderson (Physiology and Biochemistry & Cell Biology), H. N. Higgs (Biochemistry & Cell Biology), F. J. Kull (Chemistry), G. E. Lienhard (Biochemistry & Cell Biology), J. J. Loros (Biochemistry & Cell Biology and Molecular & Systems Biology), D. R. Madden (Biochemistry & Cell Biology), R. A. Maue (Medical Education and Biochemistry & Cell Biology), D. F. Mierke (Chemistry), J. B. Moseley (Biochemistry & Cell Biology), S. Supattapone (Biochemistry & Cell Biology and Medicine), W. T. Wickner (Biochemistry & Cell Biology), L. A. Witters (Medicine and Biochemistry & Cell Biology); Professors Emeriti C. N. Cole (Biochemistry & Cell Biology and Molecular & Systems Biology), O. A. Scornik (Biochemistry & Cell Biology); Associate Professors P. Avasthi (Biochemistry & Cell Biology), A. N. Kettenbach (Biochemistry & Cell Biology), L. C. Myers (Medical Education and Biochemistry & Cell Biology), E. V. Pletneva (Chemistry); Research Associate Professor R. V. Stan (Biochemistry & Cell Biology and Pathology); Assistant Professors, M. J. Ragusa (Chemistry), C. J. Shoemaker (Biochemistry & Cell Biology).

Undergraduate students interested in a major program involving biochemistry should refer to the major in Biology (Biochemistry area of concentration) offered by the Department of Biological Sciences and to the major in Biophysical Chemistry offered by the Department of Chemistry.

The Ph.D. in Biochemistry & Cell Biology is administered by the Biochemistry & Cell Biology Department of the Geisel School of Medicine at Dartmouth. The courses listed below are primarily designed for graduate students. The student should decide, in consultation with his/her committee and course instructors, whether his/her background is appropriate for the content of the course.

To view Biochemistry & Cell Biology courses, click here (p. 725).

Requirements for the Doctor’s Degree (Ph.D.)

To qualify for award of the Ph.D. degree, a student must fulfill the following requirements:

1. Satisfactory completion of a year-long graduate-level sequence in biochemistry, cellular and molecular biology; a one-term teaching assignment; and a three-term course in laboratory biochemistry. The last will consist of three small research projects, conducted in rotation with different faculty members for periods of about three months each.

2. Satisfactory completion of three other graduate-level courses in biochemistry or related disciplines.

3. Satisfactory completion of an approved ethics course.

4. Attendance at the weekly seminar series of the Program.

5. Participation in a journal club during fall, winter and spring terms every year and in the weekly Research in Progress series.

6. Satisfactory completion of a written and oral qualifying examination.

7. Satisfactory completion of a significant research project and preparation of a thesis acceptable to the thesis advisory committee.

8. Successful defense of the thesis in an oral examination and presentation of the work in a lecture.

Biochemistry and Cell Biology

BIOC 101 - Molecular Information in Biological Systems

Instructor: Shoemaker and associates

This course constitutes the first term of a year-long graduate-level sequence in biochemistry, cellular and molecular biology. The central theme of the course is the storage, retrieval, modification, and inheritance of biological information, as encoded in the molecular organization of proteins and nucleic acids. Topics include the principles of macromolecular interactions; the structure and function of proteins and nucleic acids; the machineries of transcription, translation, and replication; principles of genetics, genomics, and proteomics; and the control and evolution of biological systems. In discussing examples from the primary literature, the course also highlights the foundations of experimental rigor and reproducibility. Enrollment in Biochemistry 101 fulfills the Molecular and Cellular Biology Graduate Program requirement for fall term. Non-MCB graduate students require permission of the instructor. Not open to undergraduate students. Please note that this course
extends beyond the official last day of fall term classes.

**BIOC 106 - Spring MCB Course Module**
Instructor: Wickner and Moseley

The final term of a year-long graduate-level course in biochemistry, cell and molecular biology, a continuation of BIOC 101 and BIOL 103. These special-topics mini-courses provide more in-depth information about specific areas in biochemistry, cell and molecular biology. Each first-year MCB student must enroll in three sequential modules. Module topics offered each year will vary. Students should contact Janet Cheney for current list of spring-term modules and descriptions.
Prerequisite: Prerequisites: BIOC 101, BIOL 103

**BIOC 111 - Spring MCB Course Module**
The final term of a year-long graduate-level course in biochemistry, cell and molecular biology, a continuation of BIOC 101 and BIOL 103. These special-topics mini-courses provide more in-depth information about specific areas in biochemistry, cell and molecular biology. Each first-year MCB student must enroll in three sequential modules. Module topics offered each year will vary. Students should contact Janet Cheney for current list of spring-term modules and descriptions.
Prerequisite: Prerequisites: BIOC 101, BIOL 103

**BIOC 124 - Critical Thinking and Scientific Writing**
Instructor: Allan Bieber and Yina Huang

This course is designed to guide Molecular and Cellular Biology graduate students in their second year through writing a predoctoral fellowship application using a combination of lectures, writing assignments and proposal evaluations (self, peer and faculty). The course will introduce students to the foundations of scientific grant writing, to practical issues related to grant writing and to general instruction with regard to writing style. Concepts of scientific rigor and reproducibility in proposal writing will be incorporated. Students will receive stepwise guidance through drafting a proposal, review and revision processes and aspects of peer-review that culminates in a mock study-section experience.

This course requires permission by the instructor and is not open to undergraduate students.

**BIOC 132 - Inorganic Biochemistry**
The role of metal ions in biological systems. Topics include metal ion transport, storage and interaction with proteins and nucleic acids, metalloproteins involved in oxygen transport and electron transfer, metalloenzymes involved in activation of oxygen and other substrates, and medicinal, toxicity and carcinogenicity aspects of metals, as well as inorganic model chemistry of bioinorganic systems. Several physical methods are introduced, and their application to current research on the above topics is considered.
Prerequisite: CHEM 41 or BIOL 40, and CHEM 64, or permission of the instructor
Cross-Listed as: CHEM 92 and CHEM 132

**BIOC 197 - Graduate Research in Biochemistry & Cell Biology, Pre-Qual I**
An original individual experimental or theoretical investigation beyond the undergraduate level in biochemistry. This course is open only to graduate students prior to passing their qualifying exam; it may be elected for credit more than once. This course carries one course credit and should be elected by students conducting research and also electing departmental colloquia and one or more other courses. Barlowe and the staff of the Program.

**BIOC 198 - Graduate Research in Biochemistry & Cell Biology, Pre-Qual II**
An original individual experimental or theoretical investigation beyond the undergraduate level in biochemistry. This course is open only to graduate students prior to passing their qualifying exam; it may be elected for credit more than once. This course carries two course credits and should be elected by students electing only departmental colloquia in addition to research. Barlowe and the staff of the Program.

**BIOC 199 - Graduate Research in Biochemistry & Cell Biology, Pre-Qual III**
An original individual experimental or theoretical investigation beyond the undergraduate level in biochemistry. This course is open only to graduate students prior to passing their qualifying exam; it may be elected for credit more than once. This course carries three course credits and should be elected by students conducting research exclusively in any one term. Barlowe and the staff of the Program.

**BIOC 297 - Graduate Research in Biochemistry & Cell Biology, Post-Qual I**
An original individual experimental or theoretical investigation beyond the undergraduate level in biochemistry. This course is open only to graduate students subsequent to passing their qualifying exam; it may be elected for credit more than once. This course carries one course credit and should be elected by students conducting research and also electing departmental colloquia and one or more other courses. Barlowe and the staff of the Program.
BIOC 298 - Graduate Research in Biochemistry & Cell Biology, Post-Qual II
An original individual experimental or theoretical investigation beyond the undergraduate level in biochemistry. This course is open only to graduate students subsequent to passing their qualifying exam; it may be elected for credit more than once. This course carries two course credits and should be elected by students electing only departmental colloquia in addition to research. Barlowe and the staff of the Program.

BIOC 299 - Graduate Research in Biochemistry & Cell Biology, Post-Qual III
An original individual experimental or theoretical investigation beyond the undergraduate level in biochemistry. This course is open only to graduate students subsequent to passing their qualifying exam; it may be elected for credit more than once. This course carries three course credits and should be elected by students conducting research exclusively in any one term. Barlowe and the staff of the Program.

BIOC - Biochemistry and Cell Biology - Graduate Research Colloquium
This course is required of all students during each term of residence, except summer. An essential element of scientific training is in the critical analysis and communication of experimental research in an oral format. Evaluation will be based on quality of the work described, quality of critical analysis, and on presentation style, including effective use of audio-visual materials. Although minor variations in format exist among these series, normally these series meet weekly; and all students will be required to participate in at least one Journal Club presentation each term that describes work from the current literature and one Research in Progress presentation each academic year that describes their own research. This course is not open to undergraduates. Students may choose from the following topics, enrolling in the course named:
BIOC 259, Actin Cytoskeleton
BIOC 260, Structural Biology (Identical to CHEM 264—Enroll in CHEM 264)
BIOC 262, Lipid Biology and Neurodegeneration

Biological Sciences - Graduate
Chair: Thomas P. Jack

To view Biological Sciences Graduate courses, click here. (p. 728)
To view Biological Sciences Undergraduate requirements, click here. (p. 157)
To view Biological Sciences Undergraduate courses, click here. (p. 159)

Requirements for Advanced Degrees
The general requirements for advanced degrees are given in the Regulations for Graduate Study section. Each graduate student must receive credit for a set of courses chosen in consultation with the advisory committee. All graduate students are expected to participate in departmental colloquia and weekly seminars.

To receive the Ph.D. degree in Biology a candidate must satisfactorily:
1. Complete the course requirement, as described above.
2. Complete the teaching requirement as specified by the advisory committee.
3. Demonstrate mastery of conceptual and factual material in the major area of specialization in an oral examination.
4. Present and satisfactorily defend a thesis proposal before the advisory committee.
5. Satisfy the two-year residence requirement of the College.
7. Defend the dissertation before a faculty committee appointed for this purpose.

Although the graduate program is designed for students pursuing the Ph.D. degree, a master’s degree may be awarded under special circumstances. To receive an M.S. degree in Biology, a candidate 1) must satisfactorily
Biological Sciences

BIOL 103 - The Molecular Mechanisms of Cellular Responses
Instructor: Barlowe, Bliska, Higgs, Kettenbach, Moseley and Obar
Together with Microbiology 104, this course constitutes the second term of a year-long graduate-level sequence in biochemistry, cell and molecular biology. The central theme of the course is the molecular mechanisms by which cells respond to stimuli, to their environment and to other cells. Topics include membrane transport, protein targeting, energy conversion, signal transduction, cell motility and the cytoskeleton, and the cell cycle. Emphasis will be placed on the experimental basis for understanding cell function. This course culminates with discussion of the fidelity of cellular responses to both 'self' and pathogens. Note that this course must be taken concurrently with Microbiology 104 and that students will need to enroll in both courses to complete the Molecular and Cellular Biology Graduate Program requirements for winter term. Not open to undergraduate students.

BIOL 104 - Current Topics in Microtubules, MAPs, and Motors
Instructor: Lee
This module will examine how cells use microtubules to establish cell shape, move organelles, and segregate chromosomes during cell division. We will also cover current techniques employed for studying microtubules, microtubule-associated proteins (MAPs), and microtubule-dependent motor proteins. Each topic listed will be introduced and explored via formal lectures, review articles, and discussion of landmark paper(s) or papers from current literature. The overriding goal will be to improve your ability to critically analyze and evaluate original research data presented in the form of papers published in the scientific literature. Student participation during the course is critical to ensure that we have an active and productive discussion of the topics. The course will culminate in students working in small groups on the molecular basis of diseases linked to defects in MAPs or motor proteins.

BIOL 119 - Design and Development of Scientific Proposals
Instructor: McPeek
This graduate seminar and practicum focuses on design and development of scientific research proposals in Ecology, Evolution, Environment, and Society. Emphasis is placed on the formulation and design of testable scientific ideas and the development of these ideas into feasible projects. Each student is responsible for the development and execution of a realistic research proposal (typically following NSF proposal format). Students provide critical evaluation of each other's ideas and written work throughout the course. Offered in alternate years.
Prerequisite: Permission of instructor
Cross-Listed as: EEES 119

BIOL 120 - Advanced Population Ecology
Instructor: McPeek
Described under BIOL 51. Offered in alternate years.
Cross-Listed as: EEES-120

BIOL 123 - Advanced Community Ecology
Instructor: McPeek
Described under BIOL 58. Offered in alternate years.
Prerequisite: Graduate standing
Cross-Listed as: EEES-123

BIOL 125 - The Nature and Practice of Science
Instructor: Ayres
This course compares and contrasts the nature and practice of science across the range of contemporary biological disciplines. Topics include: What is science? What is the structure of scientific knowledge? What are the philosophical, logical, and practical aspects of hypothesis testing? What are intellectual strategies for successful research in biology? What is the role of ethics in science? Format includes readings, exercises, and discussion. Offered in alternate years.
Cross-Listed as: EEES-125

BIOL 127 - Biostatistics
Instructor: Cottingham
Held concurrently with BIOL 29. The course will cover basic descriptive statistics, simple probability theory, the fundamentals of statistical inference, regression and correlation, t-tests, one-way analysis of variance, basic analyses of frequency data and non-parametric statistics, and the general philosophy of experimental design. We will explore these topics from the perspective of biological applications. Examples will be drawn from all
subdisciplines of biology (e.g. biochemical kinetics, development, physiology, ecology, evolution).

Prerequisite: Graduate standing

Cross-Listed as: EEES 127

**BIOL 128 - Biostatistics II**

Instructor: B. Calsbeek

Held concurrently with BIOL 59. This is an advanced course in statistics and experimental design, as applied to biological systems. There will be lectures and computer laboratories, regular homework assignments, and a major term project of statistical analysis. Topics covered include analysis of variance, generalized linear models and logistic regression, multivariate analysis methods, experimental design, and an introduction to Bayesian methods. Emphasis will be placed on the use of statistical programming for performing analyses.

Prerequisite: Graduate standing and at least one elementary course in statistics

Cross-Listed as: EEES-128

**BIOL 129 - Biostatistics III: Generalized Linear Mixed Models**

Instructor: The staff

This course covers the modern techniques of building linear statistical models to analyze observational and experimental data that follows many different probabilistic distributions (e.g., normal, binomial, Poisson, exponential, geometric).

Prerequisite: BIOL-128 or EEES-128

Cross-Listed as: EEES-129

**BIOL 133 - Foundations in Ecology**

Instructor: Ayres

In this graduate course, students will read and discuss a series of classic and contemporary papers taken from the primary literature on various topics in ecology and evolutionary biology. Each week a series of lectures will be given and a set of 2-4 papers will be discussed covering a different major topic. The papers will be chosen to expose students to the foundations of major ideas and theories in ecology and evolution and to contemporary tests of these major theories. Bio 133 covers topics in ecosystem and community ecology, natural selection and adaptation, and research approaches in ecology and evolution. Offered in alternate years.

Cross-Listed as: EEES-133

**BIOL 134 - Foundations in Evolutionary Biology**

Instructor: R. Calsbeek

In this graduate course, students will read and discuss a series of classic and contemporary papers taken from the primary literature on various topics in ecology and evolutionary biology. Each week a series of lectures will be given and a set of 2-4 papers will be discussed covering a different major topic. The papers will be chosen to expose students to the foundations of major ideas and theories in ecology and evolution and to contemporary tests of these major theories. This course covers topics in population biology, population genetics, speciation, and macroevolution. Offered in alternate years. Held concurrently with BIOL 60.

Cross-Listed as: EEES-134

**BIOL 138 - Introduction to Polar Systems**

Instructor: Virginia

This course will examine current polar science that has relevance to critical environmental issues and policies for the high latitude regions. It will provide a foundation on topics such as ice core interpretation, declining sea ice and changes in ice sheet dynamics, alterations in the terrestrial and marine carbon cycles, and climate change impacts on polar biodiversity. The later portion of the course will focus on the development of a group interdisciplinary research project. This is a core course in the IGERT Polar Environmental Change curriculum. In keeping with the interdisciplinary theme of this course, several faculty will lecture or lead discussions. Professor Virginia is responsible for organizing the course, administration and assigning final grades.

Cross-Listed as: EARS 128

**BIOL 145 - Practicum in combining theories, models, and data in research**

Instructor: Ayres

In science, models are the link between theories and data. Models can be of infinitely variable form (verbal, graphical, or mathematical; process-based or empirical; deterministic or stochastic, etc.) and can function in myriad different ways (describing a theory, deriving predictions to test a theory, predicting the empirical outcomes of alternative management scenarios, etc.). Effective scientists are continually absorbing, conceiving, sorting, discarding, and refining models. All scientists are modelers, but many of us mainly do it unconsciously, and almost all of us would be better scientists if we were better modelers. This course will be a workshop in combining theories, models, and data in research. The course structure will include a mix of short lectures, analytical exercises, small work groups, structured discussions, and unstructured time for all of us to work on an interesting modeling problem from our own work.

Cross-Listed as: EEES 145
BIOL 147 - Genomics: Data to Analysis
Instructor: Zhaxybayeva
Described under BIOL 47.
Cross-Listed as: EEES-147

BIOL 148 - Arctic Environmental Change
Instructor: Culler
Held concurrently with ENVS 80.01. This course examines the connections between science and the human dimensions of rapid environmental change. First, ecosystem responses to emerging environmental issues (climate change, resource development) will be introduced from a scientific perspective. In the second part, we will explore how this science is framed in policy documents such as reports from the Intergovernmental Panel on Climate Change. The course will emphasize the importance of science communication in the policy process and will culminate with a collaborative case study that integrates climate change, resource development, and social issues.
Cross-Listed as: EEES-148

BIOL 152 - Student-Organized Seminar in Ecology and Evolution
Instructor: Staff
Graduate students who have advanced to candidacy may organize a seminar course on topics of their choosing. The course will be conceived, organized, and led by students with faculty involvement. Course proposals should contain: (1) title; (2) one-page exposition on the intellectual motivation for the course; (3) syllabus, including reading list and example problem sets, if appropriate; (4) name(s) of faculty advisor(s); (5) names of students and postdoctoral researchers that will participate in the seminar; and if appropriate, (6) a listing of potential products of the seminar, such as joint papers or proposals. Proposals will be evaluated by a faculty committee. Students are encouraged to collaborate with faculty advisors during proposal development.
Cross-Listed as: EEES-152

BIOL 153 - Aquatic Ecology
Instructor: Trout-Haney
Described under BIOL 53.

BIOL 166 - Molecular Basis of Cancer
Instructor: Grotz
Described under BIOL 66.

BIOL 169 - Supervised Teaching in Biology
Instructor: The staff
This course is required for all graduate students, based on the assertion that an essential element of graduate education is the experience gained in teaching other students. Such teaching experience is of particular relevance to students interested in academic careers. Students will conduct laboratory or discussion sessions in undergraduate courses under the supervision of the course faculty. The faculty and student teaching assistant work very closely to develop lab and discussion assignments. In some cases, the students are encouraged to present lectures for which they receive detailed feedback on their teaching style. In all cases students will receive instruction on effective teaching techniques through weekly preparation sessions. Topics for discussion include how to teach the material, how to run a discussion, how to evaluate student responses, and grading. Performance will be monitored throughout the term and appropriate evaluation, coupled with detailed suggestions for improvement, will be provided. This course is not open to undergraduates.
Cross-Listed as: EEES-169

BIOL 171 - Current Topics in Cell Biology
Instructor: Lee
Described under BIOL 71.

BIOL 173 - Cell Signaling
Instructor: Dolph
Described under BIOL 69.

BIOL 174 - Development, Plasticity and Dysfunction of the Synapse
Instructor: Hoppa
Described under BIOL 74.01.

BIOL 175 - Diseases of the Nervous System
Instructor: Hill
This course will investigate the cellular basis of several common neurodegenerative diseases including Alzheimer’s, demyelinating disorders and ALS. For each we will take a holistic approach to understand the: 1) cell types and pathways that are dysfunctional, 2) mechanisms of disease presentation, heterogeneity and patient prognosis and 3) current state of the scientific literature. Commonalities will be studied to understand how dysfunction in multicellular interactions results in a degenerative cascade of mind and body.

BIOL 176 - Advanced Genetics
Instructor: McClung
Described under BIOL 76.

BIOL 180 - Microscopy Principles and Application
Instructor: Bickel
Research in the life sciences is increasingly driven by the need to use microscopy to examine cellular components and processes. The goal of this course is to provide graduate students with a solid foundation in both the theory and practice of light microscopy, with emphasis on fluorescence and confocal techniques and approaches. We will focus on practical aspects of microscope use including experimental design, data collection and analysis. In addition, newly emerging imaging techniques relevant to the life sciences will be discussed. There will be considerable "hands on" training on different microscopes within the Biological Sciences Light Microscopy Facility.

Prerequisite: Graduate standing

**BIOL 197 - Graduate Research I: Level I**

Instructor: Staff

An original individual experimental or theoretical investigation beyond the undergraduate level in one of the fields of biology. This course is open only to graduate students, prior to passing their qualifying examination; it may be elected for credit more than once. This course carries one course credit and should be elected by students conducting research and also electing two or more other graduate or undergraduate courses.

Cross-Listed as: EEES-197

**BIOL 198 - Graduate Research I: Level II**

Instructor: Staff

An original individual experimental or theoretical investigation beyond the undergraduate level in one of the fields of biology. This course is open only to graduate students, prior to passing their qualifying examination; it may be elected for credit more than once. This course carries two course credits and should be elected by students electing only departmental colloquia in addition to research.

Cross-Listed as: EEES-198

**BIOL 199 - Graduate Research I: Level III**

Instructor: Staff

An original individual experimental or theoretical investigation beyond the undergraduate level in one of the fields of biology. This course is open only to graduate students, prior to passing their qualifying examination; it may be elected for credit more than once. This course carries three course credits and should be elected by students conducting research exclusively in any one term.

Cross-Listed as: EEES-199

**Biological Sciences**

**BIOL 200 - Foundational Papers in Ecology Research Colloquium**

Instructor: Cottingham

The goal of this discussion-based journal club is to bring together students, postdocs, and faculty from the EEES and allied graduate programs to discuss foundational papers in ecology and ecosystem science, and to make connections between this classic work and the current frontiers in these fields. Each enrolled graduate student participant will be required to lead a weekly discussion of 1-2 papers once during the term. Normally meets weekly. This course is not open to undergraduates.

**BIOL 262 - Mechanisms of Evolution and Development**

Instructor: The staff

**BIOL 263 - Cell Biology**

Instructor: Griffin, He, Amodeo

**BIOL 265 - Microbial Ecology and Environmental Biology**

Instructor: Zhaxybayeva, Nadell

The goal of this discussion-based journal club is to bring together students, postdocs, and faculty from the EEES, MCB, and EARS graduate programs to discuss recent papers on the ecology and environmental biology of microbes. Each enrolled graduate student participant will be required to lead a weekly discussion of 1-2 papers once during the term. Normally meets weekly. This course is not open to undergraduates.

Cross-Listed as: EEES-265

**BIOL 266 - Ecology and Evolution**

Instructor: Pries, Cottingham, Laidre

This course is required of all students during each term of residence, except summer. An essential element of scientific training is in the critical analysis and communication of experimental research in an oral format. Evaluation will be based on quality of the work described, quality of critical analysis, and on presentation style, including effective use of audiovisual materials. All students will make oral presentations that describe work from their own research. Normally meets weekly. This course is not open to undergraduates.

Cross-Listed as: EEES-266

**BIOL 268 - Genes and Gene Products**

Instructor: Lee, Dolph, Bickel
BIOL 269 - Plant Molecular Biology
Instructor: Schaller, McClung, Guerinot

BIOL 271 - Research in Progress Colloquium
This course is designed to monitor participation of first year MCB graduate students in the Research in Progress Seminars. The Research in Progress Seminars are presentations by MCB students, second year and older. These Research in Progress Seminars meet five times per month for 1-1.5 hours from September through May. The course will be taken by all first year MCB students in the Spring term, and the course will monitor Research in Progress Seminar participation throughout the first year.

BIOL 272 - Exploring the Two-fold Cost of Sex and the Maintenance of Meiosis
Instructor: R. Calsbeek
Asexual reproduction dominates the Earth's biology. Curiously, the vast majority of eukaryotes reproduce sexually even though the evolution of meiosis involves substantial costs. How meiosis evolved, and why it persists in sexual reproduction despite its many associated costs, are major unanswered questions in evolutionary biology. This course will survey the literature on the evolutionary origins of meiosis and the maintenance of sexual reproduction. We will explore the diversity of sexual and asexual modes of reproduction and related evolutionary phenomena with a focus on critically evaluating current research and theory in this area.

Cross-Listed as: EEES 272

BIOL 274 - Neurobiology Journal Club
Instructor: Hoppa, Hill
The goal of this discussion-based journal club is to bring together students, postdocs, and faculty from the MCB, PBS and PEMM graduate programs to discuss recent high-impact papers on cellular and molecular neurobiology. Each term’s papers will have selected themes of high interest based on the topics of leading conferences in the field of neurobiology (Gordon, Keystone and FASEB). This will help all enrolled students gain a foundation of knowledge within these topics to explore future research paths as well as prepare them to attend and present at these conferences. Each enrolled graduate student participant will be required to lead a weekly discussion of 1-3 papers depending on length once during the term. BIOL 274 will plan to meet bi-weekly for 2 hours. This course is not open to undergraduates.

BIOL 297 - Graduate Research II: Level I
Instructor: Staff
An original individual experimental or theoretical investigation beyond the undergraduate level in one of the fields of biology. This course is open only to graduate students, subsequent to passing their qualifying examination; it may be elected for credit more than once. This course carries one course credit and should be elected by students conducting research and also electing two or more other graduate or undergraduate courses.

Cross-Listed as: EEES-297

BIOL 298 - Graduate Research II: Level II
Instructor: Staff
An original individual experimental or theoretical investigation beyond the undergraduate level in one of the fields of biology. This course is open only to graduate students, subsequent to passing their qualifying examination; it may be elected for credit more than once. This course carries two course credits and should be elected by students electing only departmental colloquia in addition to research.

Cross-Listed as: EEES-298

BIOL 299 - Graduate Research II: Level III
Instructor: Staff
An original individual experimental or theoretical investigation beyond the undergraduate level in one of the fields of biology. This course is open only to graduate students, subsequent to passing their qualifying examination; it may be elected for credit more than once. This course carries three course credits and should be elected by students conducting research exclusively in any one term.

Cross-Listed as: EEES-299

Biological Sciences

BIOL 300 - Communicating Science
Instructor: Kohn, McPeek
Sure, you know how to present your research to the experts, but can you talk about it with other audiences — without your slides? Do you really connect with an audience — any audience? The goal of this 10-week, interdisciplinary graduate course is to develop the skills in current and future scientists to present their work more spontaneously, and to connect more directly and responsively with their audiences and with each other. The course, which is eligible for credit through the Graduate Office, is based on a model developed by Alan Alda at Stony Brook University. In the first half of the course, we will use improvisation exercises to enhance presence, charisma and confidence, students will develop their observational and active listening skills. In the second half of the course, we will turn these exercises to writing. Special focus will be placed on enhancing clarity and vividness, avoiding jargon and using emotion, and developing story-telling and two-way communication. Peer feedback is an essential component of this course. The
class will meet one day per week in the late afternoon/early evening in the fall term (exact time and place to be determined). Enrollment in this course represents the diversity of Dartmouth’s graduate programs. When you register for the course, please send your name, your graduate program, year in program, and the reason you want to take this course to Mark McPeek (mark.mcpeek@dartmouth.edu).

Cancer Biology - Graduate
Program Director: Steven Leach
Program Chair: Todd Miller

Professors M.D. Cole (Molecular and Systems Biology), D.A. Compton (Biochemistry and Cell Biology), S.N. Fiering (Microbiology and Immunology), S.A. Gerber (Molecular and Systems Biology and Biochemistry and Cell Biology), S.D. Leach (Molecular and Systems Biology, Surgery, and Medicine); Associate Professors B.C. Christensen (Epidemiology, Community and Family Medicine and Molecular and Systems Biology), A.N. Kettenbach (Biochemistry and Cell Biology), T.W. Miller (Molecular and Systems Biology), P.A. Pioli (Microbiology and Immunology), K.S. Samkoe (Engineering and Surgery); Assistant Professors A.B. Gaur (Neurology), B.W. Lau (Pediatrics), A. McKenna (Molecular and Systems Biology), D.R. Pattabiraman (Molecular and Systems biology), X. Wang (Molecular and Systems Biology)

Requirements
All MCB component programs including CANB require that students complete a set of common requirements for their degree, including:

• Three research rotations (Fall, Winter, Spring of the first year).
• Three terms of MCB core courses (Fall, Winter, Spring of the first year).
• One term of a teaching assistantship.*
• One ethics course.
• An on-topic (thesis-related) qualifying examination consisting of a written proposal and an oral defense.
• Three advanced elective courses from the approved elective list.
• Attendance at and participation in Journal Club meetings in 3 out of 4 terms each year.
• Attendance at MCB program functions.
• Preparation, presentation (seminar and defense), and submission of a thesis.

Complete rules can be found at: https://graduate.dartmouth.edu/mcb/academics/degree-requirements/about

* this requirement may be waived for students who transfer into MCB from another program, subject to approval by the MCB Graduate Committee.

In addition to the above requirements, CANB requires that students complete:

• Cancer Biology (CANB 126) as one of the advanced courses.
• Introductory Applied Biostatistics with R (CANB 103) as one of the advanced courses.
• Attendance at ≥75% of CANB Student Seminar Series events, and presentation of a seminar annually (subject to schedule availability and at the discretion of the CANB Executive Committee). These events will be held approximately once every other week, but no more than once per week, to provide seminar presentation opportunities for all CANB students.

CANB 103 - Biostatistics
Instructor: Christensen

This course is a survey of the statistical methods most often used in biomedical research. The course aims to provide you with an understanding of basic statistical concepts, principles of data analysis, and will include interactive examples that will serve as an introduction to conducting data analysis in R. A freely available statistical computing environment, R is a widely used data analysis program. Students must be in second year or later in a Geisel PhD program (or receive permission for exception from Course Director).

CANB 126 - Cancer Biology
Instructor: Miller

This course will present a comprehensive survey of the biology, biochemistry, pharmacology, and genetics of cancer. Students will become familiar with such areas as cancer terminology, epidemiology, carcinogenesis, tumor promotion, metastasis, oncogenes, tumor suppressor genes, growth factors, hormones, immunology, and therapy. Where possible, emphasis will be placed on the most recent cellular and molecular aspects of cancer. The class will be in lecture format and meet for 3 hours each week. Faculty lectures, discussion, and student presentations. Students must be in second year or later in a Geisel PhD program (or receive permission for exception from Course Director).
CANB 132 - Clinical Management of Care  
Instructor: Miller  
This course will expose non-clinical researchers to the clinical realities of managing cancer through classroom lectures, tumor board case review sessions, and observation of everyday oncology clinic experiences. Students will gain insight into the issues associated with the clinical management of diverse cancer subtypes; an understanding of the complexities involved in treating people/patients, not just the cancer, including consideration and management of the side effects of therapy; and exposure to translational and clinical approaches to cancer research. The format will be a one-hour lecture each week by a practicing clinician, attendance at 5 one-hour tumor board sessions, and 5 half-days of observation in oncology clinics. Students must be in second year or later in a Geisel PhD program (or receive permission for exception from Course Director).

CANB 197 - Grad Research I Level A  
Instructor: Staff of the program  
An original individual experimental or theoretical investigation beyond the undergraduate level in Cancer Biology. This course is open only to graduate students, prior to passing their qualifying exam; it may be elected for credit more than once. This course carries one course credit and should be elected by students conducting research and also electing two or more other graduate or undergraduate courses.

CANB 198 - Grad Research I Level B  
Instructor: Staff of the program  
An original individual experimental or theoretical investigation beyond the undergraduate level in Cancer Biology. This course is open only to graduate students, prior to passing their qualifying exam; it may be elected for credit more than once. This course carries two course credits and should be elected by students electing only departmental colloquia in addition to research.

CANB 199 - Grad Research I Level C  
Instructor: Staff of the program  
An original individual experimental or theoretical investigation beyond the undergraduate level in Cancer Biology. This course is open only to graduate students, prior to passing their qualifying exam; it may be elected for credit more than once. This course carries three course credits and should be elected by students conducting research exclusively in any one term.

CANB 261 - Cancer Mechanisms and Therapeutics Journal Club  
Instructor: Christensen, Kettenbach, Gaur  
An essential element of scientific training is in the critical analysis and communication of experimental research in an oral format. Evaluation will be based on quality of the work described, quality of critical analysis, and on presentation style, including effective use of audio-visual materials. All students will be required to participate in at least one Journal Club presentation each term that describes work from the current literature and one Research in Progress presentation each academic year that describes their own research.

CANB 297 - Grad Research II Level A  
Instructor: Staff of the program  
An original individual experimental or theoretical investigation beyond the undergraduate level in Cancer Biology. This course is open only to graduate students, subsequent to passing their qualifying exam; it may be elected for credit more than once. This course carries one course credit and should be elected by students conducting research and also electing two or more other graduate or undergraduate courses.

CANB 298 - Grad Research II Level B  
Instructor: Staff of the program  
An original individual experimental or theoretical investigation beyond the undergraduate level in Cancer Biology. This course is open only to graduate students, subsequent to passing their qualifying exam; it may be elected for credit more than once. This course carries two course credits and should be elected by students electing only departmental colloquia in addition to research.

CANB 299 - Grad Research II Level C  
Instructor: Staff of the program  
An original individual experimental or theoretical investigation beyond the undergraduate level in Cancer Biology. This course is open only to graduate students, subsequent to passing their qualifying exam; it may be elected for credit more than once. This course carries three course credits and should be elected by students conducting research exclusively in any one term.

Chemistry - Graduate  
Chair: Dean E. Wilcox  
Professors: I. Aprahamian, R. S. Cantor, D. S. Glueck, F. J. Kull, J. E. G. Lipson, G. C. Micalizio, D. F. Mierke, E. V. Pletneva, D. E. Wilcox, J. Wu; Associate Professor: K. A. Mirica; Assistant Professors: K. E. Griswold, C. Ramanathan, D. W. Van Citters; Adjunct Associate Professors: G. Grigoryan, K. E. Griswold, C. Ramanathan, D. W. Van Citters; Adjunct Assistant Professors: W. D. Leavitt, W. Li, J. D. Whitfield; Adjunct
Integrated 4+1 AB/MS Program in Biophysical Chemistry

Objective and Overview: A 4+1 program to provide Dartmouth undergraduate students an opportunity to acquire a broader and deeper education in modern techniques of biophysical chemistry through a combination of coursework and independent research under the direction of one of the program faculty. With integration of the courses and a substantial effort in the independent research carried out during the senior year, the MS can be obtained in one year directly after completing the AB at Dartmouth.

Participating Faculty: Robert S. Cantor, Computational biophysics of cell membranes, protein-lipid interactions, ion channel kinetics, anesthetic mechanisms; F. Jon Kull, Protein crystallography, molecular motors, cellular transport mechanisms, enzyme mechanisms; transcription factors; bacterial virulence; cholera; Dale F. Mierke, Biophysical chemistry, high resolution NMR, peptide/compound library screening, structure-based drug design; Ekaterina V. Pletneva, Biophysical and bioinorganic chemistry, heme proteins, fluorescence studies of protein conformational dynamics, redox chemistry; Michael J. Ragusa, Protein crystallography, small angle X-ray scattering, autophagy, vesicle biogenesis, protein degradation; Paul J. Robustelli, Computational biophysical chemistry, intrinsic disordered proteins; Dean E. Wilcox, Thermodynamics of metal-protein interactions, metalloenzymes, nitric oxide biochemistry.

Prerequisite Courses: Students wishing to enter the program must demonstrate proficiency in each of the following areas: biochemistry, chemistry, calculus and physics. Such proficiency will normally be demonstrated by completing the following Dartmouth College courses with at least a B grade prior to entering the Master’s Program: MATH 8 (or equivalent), PHYS 13-14 (or PHYS 15-16 or, by permission, PHYS 3-4), CHEM 51-52 (or equivalent), CHEM 41 (or, by permission, BIOL 40), CHEM 40 or CHEM 75 and CHEM 76.

It is anticipated that the student will begin an independent research project with one of the participating faculty no later than the summer before senior year. An interim evaluation will be made after each term and continuation within the Master’s Program will be recommended for those students whose work demonstrates the capacity for satisfactory independent research.

Admission: Students must apply for admission to the program no later than May 1 of their junior year, although interested students are strongly encouraged to contact the Program Director (Mierke) earlier for advice on prerequisites, and on the scheduling of required courses for the degree. Having explored research opportunities with members of the faculty listed above, the applicant is expected to reach an agreement on a specific project with one of the faculty. The program Admissions Committee (Cantor, Kull, Mierke) will be responsible for reviewing applications and making offers of admission, to be completed by June 30.

A complete application includes: i. A current transcript. ii. Anticipated schedule of courses for senior and fifth year. iii. The name of the research advisor and a brief description of the research project, including a timeline of research effort.

Specific Requirements for the Master’s in Biophysical Chemistry are as follows:
1. Course Distribution Requirements: In addition to the prerequisite courses described above, each student must pass the following courses, either prior to beginning the Master’s Program or as part of the coursework required for the program: CHEM 42, and two offerings of CHEM 161: (CHEM 161.1, CHEM 161.2, CHEM 161.3, CHEM 161.4, CHEM 161.5, CHEM 161.6).
2. Required Course Credits: During the Master’s Program, each student must pass with a grade of P or better at least eight courses from the offerings in biophysical chemistry. Two terms of Graduate Research Colloquium and up to four courses in graduate-level research may count in the eight-course total. Note: Courses taken as an undergraduate can fulfill the “Course Distribution Requirements” described above, but do not count toward the eight courses required for the Master’s degree.
3. Competency Requirement: The student must demonstrate competency in the fundamentals of biophysical chemistry methodology, including X-ray crystallography, NMR spectroscopy, fluorescence spectroscopy/FRET, experimental characterization of binding processes, or biomolecular computer simulations. This requirement will be satisfied by successful defense of the topic in an oral examination that must be completed before the end of winter term.

Thesis Requirement: The student must complete a satisfactory thesis based on independent-original research. The thesis must be approved by three program members and successfully defended in an oral examination.

Integrated 4+1 AB/MS Program in Chemistry
Participating Faculty: Ivan Aprahamian, adaptive functional materials; David S. Glueck, asymmetric catalysis; Chenfeng Ke, functional materials for device fabrication, energy related applications, and biological sensors; Jane E. G. Lipson, physical properties of polymers and glasses; Glenn C. Micalizio, organic synthesis; Katherine A. Mirica, materials, organic, and analytical chemistry, sensors; Christopher Sandford, organic chemistry, catalysis, computational organic chemistry; Jimmy Wu, organic synthesis; Wenlin Zhang, theory and computationally guided design of high-performance polymers and soft matter.

Prerequisite Courses: Students wishing to enter the program must demonstrate proficiency in chemistry or materials science. Such proficiency will normally be demonstrated by completing the Dartmouth College chemistry major with at least a B average prior to entering the Master’s Program. Students with appropriate experience in chemistry from other majors, such as engineering, biology or physics, may also request consideration.

It is anticipated that the student will begin an independent research project with one of the participating faculty no later than the summer before senior year. An interim evaluation will be made after each term and continuation within the Master’s Program will be recommended for those students whose work demonstrates the capacity for satisfactory independent research.

Admission: Students must apply for admission to the program no later than May 1 of their junior year, although interested students are strongly encouraged to contact the Program Director (Glueck) earlier for advice on prerequisites, and on the scheduling of required courses for the degree. Having explored research opportunities with members of the faculty listed above, the applicant is expected to reach an agreement on a specific project with one of the faculty. The program Admissions Committee (Aprahamian, Glueck, Micalizio) will be responsible for reviewing applications and making offers of admission, to be completed by June 30.

A complete application includes:
1. A current transcript.
2. Anticipated schedule of courses for senior and fifth year.
3. The name of the research advisor and a brief description of the research project, including a timeline of research effort.

Requirements for the Master’s Degree (M.S.) in Chemistry

The general requirements for the Master’s degree, together with the specific requirements of the Department of Chemistry normally allow completion of the degree in two years.

The specific requirements are as follows:
1. Each student must pass with a grade of P or better eight courses from the graduate offerings in Chemistry and allied areas that have been chosen in consultation with the adviser and approved by the Graduate Student Advisory Committee (GSAC). CHEM 256 and one term of CHEM 257 may count. Up to four courses may be in graduate-level research, but they may not include the Colloquium course CHEM 140 or any course in the CHEM 260 series, nor may courses numbered below 100 count in the eight-course total.

2. The student must complete a satisfactory thesis based on independent, original research and pass creditably an oral examination upon this thesis.

3. In the course of this training, the student must gain experience in teaching, including completion of CHEM 256.

Requirements for the Doctor’s Degree (Ph.D.) in Chemistry

A student will be admitted to candidacy for the doctorate after satisfying the following requirements:
1. Completion, by the start of the Fall term of the student’s second year in the program, through an appropriate combination of Dartmouth courses or performance on diagnostic entrance examinations, of a breadth requirement in three of the four topical areas of biological, inorganic, organic, and physical chemistry.

2. Passing a Ph.D. qualifying examination consisting of a written proposal on the student’s Ph.D. research and an oral defense of that proposal by the end of the spring term of the second year.

3. Submission and oral defense of an original research proposal in an area removed from the student's own thesis research by the end of the student's third year.

4. Presentation before the Department of a lecture on the thesis topic during the student's fourth year.

The candidate will receive the doctorate upon:
1. Satisfactory completion of an original thesis project of high quality and substantial significance, and approval of the thesis embodying the results of this research.

2. Successful defense of this thesis in an oral examination.

A candidate for the doctorate will take various courses in chemistry and allied fields that are pertinent to their area of study. He or she will also participate actively in undergraduate teaching, including completion of CHEM 256. It is anticipated that a graduate student will normally
complete all of the requirements for the doctorate in approximately five years. It is not necessary to earn a master’s degree as a prerequisite to the doctorate.

More complete information can be obtained from the brochure, *Graduate Study in Chemistry at Dartmouth*, that can be obtained from the Department of Chemistry.

**CHEM 101 - Special Topics in Physical Chemistry**
An in-depth exploration of a specific topic in physical chemistry. This course provides an introduction into the areas of current research in the field. The course is offered in most fall and winter terms, but the content changes according to the chosen topic.

**CHEM 101.1** (p. 737) Quantum Chemistry
**CHEM 101.2** (p. 737) Statistical Thermodynamics
**CHEM 101.3** (p. 737) Molecular Spectroscopy
**CHEM 101.4** (p. 737) Chemistry of Macromolecules
**CHEM 101.5** Introduction to Statistical Thermodynamics and Molecular Simulations
**CHEM 101.6** Computational Methods in Chemistry and Biophysics
**CHEM 101.7** (p. 738) Introduction to Materials Chemistry
**CHEM 101.8** (p. 738) Chemical Kinetics

**CHEM 101.1 - Quantum Chemistry**
Instructor: Ditchfield
An introduction to the quantum mechanics of molecular systems. Approximate methods for calculating the electronic structure of molecules are discussed. Particular emphasis is placed on molecular orbital methods at various ab-initio levels. Methods which include the effects of electron correlation will also be presented. Evaluation of such methods for studies of molecular geometry, conformational problems, thermochemical data, and spectroscopic parameters is presented. Other topics considered may include the electronic structure of hydrogen bonded systems and of excited states.
Prerequisite: MATH 13 and CHEM 76 or equivalent, or permission of the instructor.
Cross-Listed as: CHEM 96.01

**CHEM 101.2 - Statistical Thermodynamics**
Instructor: Cantor
Elements of equilibrium statistical thermodynamics for classical and quantum mechanical systems, with applications to ideal gases, crystalline solids, imperfect gases and liquids.
Prerequisite: MATH 13 and CHEM 76 or equivalent, or permission of the instructor.
Cross-Listed as: CHEM 96.02

**CHEM 101.3 - Molecular Spectroscopy**
Instructor: Winn
A study of optical spectroscopy including selected topics from amongst point group theory, vibrational spectra of polyatomic molecules, electronic and vibronic spectra of molecules and rotational spectra. May be offered on tutorial basis.
Prerequisite: CHEM 76 or equivalent, or permission of the instructor.
Cross-Listed as: CHEM 96.03

**CHEM 101.4 - Chemistry of Macromolecules**
Instructor: Lipson
Light scattering and other characterization techniques; thermodynamic and transport properties of macromolecular solutions. Structure-property correlations in amorphous and crystalline polymers.
Prerequisite: CHEM 75 or permission of the instructor
Cross-Listed as: CHEM 96.04

**CHEM 101.5 - Introduction to Statistical Thermodynamics and Molecular Simulations**
Instructor: Zhang
An introduction to statistical mechanics and computer simulations of molecular liquids and solids. Discussions of fundamental concepts are complemented with demonstrations of computational and analytical methods for solving statistical mechanics problems.

**CHEM 101.6 - Computational Methods in Chemistry and Biophysics**
Instructor: Robustelli
A project-based introduction to computational methods in chemistry, molecular biophysics and structural biology. Projects will provide a practical introduction to data analysis and data visualization with python. Molecular dynamics simulations, Monte Carlo simulations and quantum calculations will be used to explore topics in protein dynamics, polymer dynamics, and the conformational analysis of small molecules. No prior coding experience is required.
CHEM 101.7 - Introduction to Materials Chemistry  
Instructor: BelBruno  
This course begins with a review of fundamental concepts in material science, provides an introduction to some of the more advanced concepts, especially in regard to nanomaterials and, finally, focuses on the chemistry involved in production of modern materials and their uses. The latter topics include the chemistry of thin films, self-assembled chemical systems, surface chemistry and cluster chemistry. 
Prerequisite: Background in Chemistry equivalent to CHEM 76 or Physics equivalent to PHYS 24 or Engineering equivalent to ENGS 24 or permission of instructor. 
Cross-Listed as: CHEM 96.07

CHEM 101.8 - Chemical Kinetics  
Instructor: BelBruno  
Kinetics of chemical reactions in various media: reaction rate expressions, mechanisms, elementary processes. Elementary theories of rate processes: activated complex theory, elementary collision theory, unimolecular decomposition. Such topics as diffusion control of reactions, catalysis and photochemistry will be treated as time allows. 
Prerequisite: MATH 13 and CHEM 76 or equivalent or permission of the instructor. 
Cross-Listed as: CHEM 96.08

CHEM 103 - Special Topics in Biophysical Chemistry  
Instructor: Staff  
A course designed to address topical interests and knowledge areas required of students in the Integrated 4+1 AB/MS Program in Biophysical Chemistry.

CHEM 123 - Graduate Toxicology  
This course is open to graduate, medical and advanced undergraduate students. It provides an introduction to toxicology as a discipline, with a focus on the molecular basis for toxicity of chemicals in biological systems. Major topics include: principles of cell and molecular toxicology, xenobiotic metabolism, molecular targets of cellular toxicity, genetic toxicology, chemical carcinogenesis, immunotoxicology, neurotoxicology, clinical toxicology, and quantitative risk assessment. Faculty lectures and discussion. 
Prerequisite: Undergraduate or graduate biochemistry, or permission of instructor.

CHEM 124 - Analytical Chemistry and Inorganic Instrumental Analysis  
Instructor: Jackson  
This course is directed towards graduate students planning to use inorganic chemical analysis in their thesis work. The lectures and seminars focus on the theory and application of modern instrumental analysis and analytical chemistry. The theoretical background for a number of inorganic instrumental analytical methods is given and examples of their application to problems of interest to analytical chemists working in the fields of earth science, chemistry, biology and environmental science are presented. The lectures cover ion chromatography, electrochemistry, atomic absorption, inductively coupled plasma optical emission and inductively coupled plasma mass spectrometry. The theory and concepts of analytical chemistry are provided along with statistical tools, uncertainty calculations and data treatment methods useful in analytical chemistry. 
Prerequisite: CHEM 5 and CHEM 6 or equivalents or permission of the instructor.

CHEM 131 - Advanced Inorganic Chemistry: Catalysis  
Instructor: Glueck  
The role of metals in homogeneous and heterogeneous catalysis, with an emphasis on mechanisms of catalytic reactions. Applications to industrial processes, organic synthesis, and asymmetric synthesis will be discussed. 
Prerequisite: CHEM 64, and either CHEM 52 or CHEM 58, or permission of the instructor

CHEM 132 - Inorganic Biochemistry  
Instructor: Pletneva  
The role of metal ions in biological systems. Topics include metal ion transport, storage, and interaction with proteins and nucleic acids; metalloproteins involved in oxygen transport and electron transfer; metalloenzymes involved in activation of oxygen and other substrates; and medicinal, toxicity, and carcinogenicity aspects of metals; as well as inorganic model chemistry of bioinorganic systems. Several physical methods are introduced, and their application to current research on the above topics is considered. 
Prerequisite: CHEM 64, and CHEM 41 or BIOL 40, or permission of the instructor

CHEM 135 - Functional Nanomaterials: Synthesis and Applications  
Instructor: Mirica  
This course focuses on synthesis, structure, and properties of nanomaterials. It begins with the introduction to the fundamental principles for understanding the size-
dependent properties of materials that emerge at the nanoscale. It surveys a number of experimental techniques that can be utilized for observing and analyzing nanostructures, including X-ray techniques, scanning probe microscopy, and electron microscopy. It further details how strategies for synthesis, surface chemistry, and self-assembly can be utilized to control and tailor structure and properties of nanomaterials. Finally, the course highlights the applications of nanomaterials in chemical sensing, disease diagnosis and treatment, energy conversion and storage, and information storage. The class will feature a Wikipedia editing project, and visiting lectures highlighting modern technological applications of nanomaterials from PhD-level guest speakers.

CHEM 136 - Polymer Synthesis
Instructor: Ke

This course covers a broad spectrum of polymer synthesis methods, reaction mechanisms and characterization methods. Students will actively participate in the learning process, which involves oral presentations, practice in retrosynthesis and the development of a research proposal.

CHEM 137 - Methods of Materials Characterization
Instructor: I. Baker

This survey course discusses both the physical principles and practical applications of the more common modern methods of materials characterization. It covers techniques of both microstructural analysis (OM, SEM, TEM, electron diffraction, XRD), and microchemical characterization (EDS, XPS, AES, SIMS, NMR, RBS and Raman spectroscopy), together with various scanning probe microscopy techniques (AFM, STM, EFM and MFM). Emphasis is placed on both the information that can be obtained together with the limitations of each technique. The course has a substantial laboratory component, including a project involving written and oral reports, and requires a term paper.

Prerequisite: ENGS 24, or permission of the instructor
Cross-Listed as: PHYS 128 and ENGS 133

CHEM 140 - Chemistry Research Colloquia
Instructor: The Staff

Colloquia presented to the Department of Chemistry by scientists and educators in the chemistry profession on Thursdays, and by graduate students and others conducting research in chemistry and allied fields on Wednesdays as needed. The course is required of all graduate students in chemistry in each term except summer. The course is not open for credit to undergraduates.

CHEM 151 - Physical Organic Chemistry
Instructor: Aprahamian

Modern theories of organic reaction mechanisms, particularly the use of physical-chemical principles to predict the effect of changing reaction variables, especially reactant structures, on reactivity. The structure, stability, and reactivity of carbanions and carbocations, as well as SN1 and SN2 reactions, are discussed.

Prerequisite: CHEM 52 or CHEM 58, or permission of the instructor
Cross-Listed as: CHEM 93

CHEM 152 - Advanced Organic Synthesis and Mechanisms
Instructor: Wu

Consideration of organic chemical reactions at an advanced level. Current knowledge concerning synthetic methods, reaction mechanisms, reactive intermediates, conformational analysis, and biosynthesis is discussed in the context of modern organic chemistry.

Prerequisite: CHEM 52 or CHEM 58 or permission of the instructor.

CHEM 153 - Chemistry of Natural Products
Instructor: Micalizio

A survey of the application of modern synthetic methods to the total synthesis of natural products. Coverage will include retrosynthetic analysis and synthetic planning and an overview of the preparation of a wide variety of important natural products. Emphasis will be placed on student problem-solving in the context of the synthesis of complex molecules.

Prerequisite: CHEM 152, or permission of the instructor

CHEM 157 - Topics in Advanced Organic Chemistry

Treatment at an advanced level of one or more areas of organic chemistry. The subject matter may vary from offering to offering; accordingly, the course may be taken for credit more than once. Offered on a tutorial basis to qualified students.

CHEM 158 - Supramolecular Chemistry
Instructor: Aprahamian

An introduction to molecular recognition and self-assembly processes that are the cornerstones of natural and synthetic supramolecular systems. The course will focus on the design of functional supramolecular materials, and their application in nanotechnology.

CHEM 159 - Chemistry of Heterocyclic Compounds

An introduction to the chemical, physical, and spectroscopic properties of heterocyclic compounds.
Coverage will include reactions, synthesis, stereochemistry, and unusual rearrangements. Attention will also be given to natural product synthesis and to heterocycles of biological interest.

Prerequisite: Permission of the instructor

CHEM 161 - Topics in Advanced Biophysical Chemistry

Instructor: Staff

Treatment at an advanced level of one or more areas of biophysical chemistry. The subject matter varies from offering to offering; accordingly the course may be taken for credit more than once.

Prerequisite: CHEM 41, and CHEM 42 or CHEM 76, or permission of the instructor.

CHEM 161.1 - Membrane Biophysics

Instructor: Cantor

The structure and function of cell membranes, with emphasis on the complex behavior of intrinsic membrane proteins and its relation to physical properties of the lipid bilayer.

Prerequisite: CHEM 41 and CHEM 42 or CHEM 76, or permission of the instructor

CHEM 161.2 - Biomolecular Simulations

Instructor: Mierke

An advanced treatment of modern computational approaches to the folding, structure, and dynamics of proteins and nucleic acids and their complexes. Topics include folding, searching algorithms, homology modeling, energy landscape deformation, and multi-dimensional searching.

Prerequisite: CHEM 41 and CHEM 42 or CHEM 76, or permission of the instructor

CHEM 161.3 - Biomolecular NMR

Instructor: Mierke

The theoretical and practical aspects of the modern use of nuclear magnetic resonance in the study of biomolecules including peptides/proteins, synthetic and natural products, and nucleic acids will be developed.

Prerequisite: CHEM 41 and CHEM 42 or CHEM 76, or permission of the instructor

CHEM 161.4 - Structure and Dynamics of Biomolecules

The principles that define structure and dynamics of biological molecules are discussed. Dynamics are examined in mechanisms of protein folding, signal transduction, and catalysis. Theoretical and experimental methods that probe structural fluctuations are introduced and explored in detail in examples from modern research.

Prerequisite: CHEM 41 and CHEM 42 or CHEM 76, or permission of the instructor

CHEM 161.5 - Protein Crystallography

Instructor: Ragusa

Theoretical aspects for the determination of protein structures using X-ray crystallography. Topics will include a detailed description of crystal symmetry, diffraction theory, data collection and processing, and methods for solving the crystallographic phase problem.

Prerequisite: CHEM 41 and CHEM 42 or CHEM 76, or permission of the instructor

CHEM 161.6 - Enzymes

Instructor: Wilcox

Properties of enzymes that accelerate biochemical reactions, kinetic measurements to quantify enzymatic catalysis, methods to determine the mechanism of an enzymatic reaction, control and regulation of enzymatic activity, overview of the classes of enzymes and the reactions they catalyze.

CHEM 256 - Graduate Instruction in Teaching

Instructor: Staff

A course in the methodology and practice of chemistry teaching at the undergraduate college level. Topics such as laboratory supervision and safety, grading issues, special needs students, lecturing and tutoring techniques, exam preparation, and the teacher/student relationship will be discussed through readings, class discussions, and student presentations. Topics in professional ethics and career development will be considered and discussed. This course is a prerequisite to the supervised undergraduate teaching requirement for the Ph.D. degree in chemistry. Required of entering graduate students. This course is not open for credit to undergraduates.

CHEM 257 - Supervised Undergraduate Teaching in Chemistry

Instructor: Chair and staff of the Department

Teaching in chemistry undergraduate courses under the supervision of a faculty member. Normally students enrolled in this course teach alongside faculty in undergraduate instructional laboratories. This course is open only to graduate students; it may be elected for credit more than once.

Prerequisite: CHEM 256 or previous teaching experience in undergraduate chemistry courses
CHEM 260 - Graduate Research Colloquium in Organometallic Chemistry

Instructor: Glueck

This course is available to graduate students during each term of residence, except for the summer term. An essential element of scientific training is in the critical analysis and communication of experimental research in an oral format. Evaluation will be based on quality of the work, quality of critical analysis, and on presentation style, including effective use of audiovisual materials. All enrolled students will make oral presentations that describe work from the current literature or their own research. Normally these series meet weekly. This course is not open to registration by undergraduates.

CHEM 261 - Graduate Research Colloquium in Materials Chemistry

Instructor: Staff

This course is available to graduate students during each term of residence, except for the summer term. An essential element of scientific training is in the critical analysis and communication of experimental research in an oral format. Evaluation will be based on quality of the work, quality of critical analysis, and on presentation style, including effective use of audiovisual materials. All enrolled students will make oral presentations that describe work from the current literature or their own research. Normally these series meet weekly. This course is not open to registration by undergraduates.

CHEM 262 - Graduate Research Colloquium in Synthetic Organic Chemistry

Instructor: Staff

This course is available to graduate students during each term of residence, except for the summer term. An essential element of scientific training is in the critical analysis and communication of experimental research in an oral format. Evaluation will be based on quality of the work, quality of critical analysis, and on presentation style, including effective use of audiovisual materials. All enrolled students will make oral presentations that describe work from the current literature or their own research. Normally these series meet weekly. This course is not open to registration by undergraduates.

CHEM 263 - Graduate Research Colloquium in Bioinorganic Chemistry

Instructor: Staff

This course is available to graduate students during each term of residence, except for the summer term. An essential element of scientific training is in the critical analysis and communication of experimental research in an oral format. Evaluation will be based on quality of the work, quality of critical analysis, and on presentation style, including effective use of audiovisual materials. All enrolled students will make oral presentations that describe work from the current literature or their own research. Normally these series meet weekly. This course is not open to registration by undergraduates.

CHEM 264 - Graduate Research Colloquium in Biophysical Chemistry

Instructor: Staff

This course is available to graduate students during each term of residence, except for the summer term. An essential element of scientific training is in the critical analysis and communication of experimental research in an oral format. Evaluation will be based on quality of the work, quality of critical analysis, and on presentation style, including effective use of audiovisual materials. All enrolled students will make oral presentations that describe work from the current literature or their own research. Normally these series meet weekly. This course is not open to registration by undergraduates.

CHEM 265 - Graduate Research Colloquium in Computational, Modeling and Theoretical Chemistry

Instructor: Staff

This course is available to graduate students during each term of residence, except for the summer term. An essential element of scientific training is in the critical analysis and communication of experimental research in an oral format. Evaluation will be based on quality of the work, quality of critical analysis, and on presentation style, including effective use of audiovisual materials. All enrolled students will make oral presentations that describe work from the current literature or their own research. Normally these series meet weekly. This course is not open to registration by undergraduates.

CHEM 297 - Graduate Investigation in Chemistry A

Instructor: Chair and staff of the Department

An original and individual experimental or theoretical investigation beyond the under-graduate level in one of the fields of chemistry. This course is open only to graduate students; it may be elected for credit more than once. This course carries one course credit and should be elected by students conducting research and also electing two or more other graduate or undergraduate courses.

CHEM 298 - Graduate Investigation in Chemistry B

Instructor: Chair and staff of the Department

An original and individual experimental or theoretical investigation beyond the under-graduate level in one of the fields of chemistry. This course is open only to graduate students; it may be elected for credit more than once. This course carries two course credits and should be elected by students electing only departmental colloquia in addition to research.
CHEM 299 - Graduate Investigation in Chemistry C
Instructor: Chair and staff of the Department
An original and individual experimental or theoretical investigation beyond the under-graduate level in one of the fields of chemistry. This course is open only to graduate students; it may be elected for credit more than once. This course carries three course credits and should be elected by students conducting research exclusively in any one term.

Comparative Literature - Graduate
Chair: Lawrence Kritzman
Professors R. E. Biron (Spanish and Portuguese, Comparative Literature), A. Coly (AAAS, Comparative Literature), T. El-Ariss (Middle Eastern Studies, Comparative Literature), G. Gemünden (German, Comparative Literature), I. Kacandes (German, Comparative Literature), L. D. Kritzman (French and Italian, Comparative Literature), D. P. LaGuardia (French and Italian, Comparative Literature), A. Lawrence (Film and Media Studies), G. Parati (French and Italian, Comparative Literature), B. Pastor (Spanish and Portuguese, Comparative Literature), S. Spitta (Spanish and Portuguese, Comparative Literature), M. R. Warren (Comparative Literature), D. Washburn (Asian Societies, Cultures and Languages, Comparative Literature, Film and Media Studies); Associate Professors J. Aguado (Spanish and Portuguese), N. Canepa (French and Italian, Comparative Literature), J. Dorsey (ASCL), Y. Elhariry (French and Italian), V. Fuechtner (German), A. Gomez (Spanish and Portuguese), Y. Komska (German, Comparative Literature), A. Martin (Spanish and Portuguese, Comparative Literature), K. Mladek (German, Comparative Literature), M. Otter (English, Comparative Literature), I. Reyes (Spanish and Portuguese, Comparative Literature), A. Tarnowski (French and Italian, Comparative Literature), J. Smolin (Middle Eastern Studies)

Courses in Comparative Literature are designed to meet the needs of students whose literary interests are broader than those that can be met by the curriculum of any single department.

To view Comparative Literature Graduate courses, click here. (p. 742)
To view Comparative Literature Undergraduate requirements, click here. (p. 224)
To view Comparative Literature Undergraduate courses, click here. (p. 225)

Requirements for the Master of Arts in Comparative Literature
Each graduate student must receive credit for at least nine courses for the one-year Master of Arts degree and complete a major text presentation and prepare a paper of professional quality.

To receive the Masters degree in Comparative Literature a candidate must satisfactorily:
1. Complete nine courses as described below:
   CL 100, Contemporary Literary Criticism and Theory (required)
   CL 101, Topics in Literary and Cultural Theory (required)
   CL 102, Tutorial (required)
   Arrange with advisor.
   CL 103, Workshop in Critical Writing (required)
   CL 105, Graduate Seminar (required)
   Arrange with graduate advisor.
   Four elective courses in relevant Dartmouth language and literature departments including one upper level course in the candidate’s first foreign language.
2. A major text presentation. In conjunction with the Tutorial (CL 102) and the graduate seminar (CL 105), students will prepare a 20-minute public presentation on a major text (read in its original language) related to their research area.
3. An M.A. essay. During spring term, in conjunction with CL 103 (Workshop in Critical Writing), the candidate will prepare a paper of professional quality which will be reviewed by a subcommittee of the Graduate Committee.

Comparative Literature
COLT 700 - Responsible and Ethical Conduct of Research
Instructor: Baron
Required course for all Comparative Literature graduate students. Generally consists of five two hour sessions as well as additional reading and preparation.

COLT 100 - Contemporary Literary Criticism and Theory
Instructor: Fuechtner (21), Mladek (22)
Open to M.A. candidates only.

COLT 101 - Topics in Comparative Literature
Instructor: Gómez (22), Biron (23)
In this seminar, students will learn about how to coherently compare literary texts that may share a common theme but belong to different genres and come from heterogeneous temporal and geographical background.
Prerequisite: COLT100

**COLT 102 - Tutorial**

Instructor: Spitta (21), Gomez (22)

Arrange with advisor.

This course is open to M.A. candidates only.

**COLT 103 - Workshop in Critical Writing**

Instructor: Gemünden (22), Mladek (23)

Critical thinking and concise, persuasive writing are prerequisites for any professional career. In fact, both go hand in hand. The Workshop in Critical Writing introduces graduate students to advanced research techniques, to the conventions of scholarly discourse, and to the various kinds of writing practiced in literary studies. We will analyze scholarly articles as examples of research methods, argument development, rhetorical technique, and stylistic presentation; we will test a variety of practical approaches to the interpretation of literary texts; and we will explore how we might use theory in critical argument. Students will be asked to prepare and submit a scholarly article using previous written work of their own (senior thesis, independent study project) as a basis. The workshop format of the course will permit students to read and critique each other's work and to sharpen their editorial skills. This course is open to M.A. candidates only.

**COLT 105 - Graduate Seminar**

Instructor: Spitta (22), Gómez (23)

This course is open to M.A. candidates only.

**COLT 106 - Graduate Research**

**Computer Science - Graduate**

Chair: Devin Balkcom


To view the Computer Science Graduate courses, click here. (p. 747)

To view the Computer Science Undergraduate requirements, click here. (p. 207)

To view the Computer Science Undergraduate courses, click here. (p. 210)

**Graduate Study in Computer Science**

The Department of Computer Science offers programs leading to the Ph.D. and M.S. degrees in Computer Science. Each is described below. All graduate students are expected to complete COSC700 in their first year.

**Requirements for the Doctor’s Degree (Ph.D.)**

During the first year, students engage in research projects with faculty and start to take a set of core graduate courses and topics courses. In the second year and beyond, students become progressively more engaged in research while completing their course requirements. The requirements for the Ph.D. degree in Computer Science are as follows:

1. Admission to the degree program by an admissions committee of the Computer Science faculty.
2. Students should take a minimum of two terms of research in each of their first and second years under the supervision of a tenure-track faculty member.
3. By the beginning of the second year each student should write a high-quality paper that describes in detail his or her research efforts and results to date, including motivation, relation of the student's work to the work of others, and specifics about results or obstacles faced in obtaining results.
4. By the end of Fall term of the second year, each student must have a Ph.D. advisor who is a member of the tenure-track faculty in Computer Science. Students may change advisors after this point, but they should not be without an advisor for more than a term.
5. Completion of a course of study that includes the following:
   a. All PhD students must obtain a grade P or HP in one course numbered 230–249, one course numbered 250–269, and one course numbered 270–289. These constitute the breadth requirements for the PhD program.
   b. All students must pass at least eight courses numbered between 130 and 189 or between 230 and 289, including the breadth courses listed in requirement (a) above. The special topics courses, numbered 149, 169, 189, 249, 269, and 289 may be taken multiple times and will be counted as distinct courses for this purpose. At most one course from
outside Computer Science may be substituted, with permission of the Ph.D. program director.

c. All students must complete COSC 700 in their first year.

A student’s course of study is subject to the approval of the Ph.D. Program Director. Students normally take the breadth courses specified in requirement (a) above by the end of their second year.

6. Students are expected to pass the Research Presentation Exam by the end of the winter term of their third year. An examining committee consisting of three faculty members, appointed by the departmental Ph.D. Program Director, will select a paper for the student to present. The student will have a month to read the paper, and will then present the paper to the committee and will orally answer questions on the paper. The committee will evaluate the student's presentation and performance answering questions, and will determine whether the student passes the examination. A student is allowed two attempts to pass the exam. In a second attempt, the student is assigned a new paper, but not necessarily a new committee. Passing the Research Presentation Exam is a prerequisite to thesis proposal (see requirement 8 below). For more details on this exam, consult the Computer Science department web page.

7. At least one term of participation in undergraduate teaching. That is, the student must pass COSC 296.

8. Each student must display readiness for research in one area by giving a written and a public oral presentation of his or her research plan. This thesis proposal will be judged by a faculty committee which shall be formed for the purpose of guiding the student's research; the rules used for the composition of this committee are the same as for a Ph.D. defense committee; this committee does not require the approval of the Dean of Graduate Studies, but must be approved by the departmental Ph.D. Program Director. The presentation will be followed by a question period in which the student demonstrates mastery of the relevant area and defends the proposed thesis plan.

9. Six terms in residence at Dartmouth. (This is a College requirement.)

10. Preparation of a thesis acceptable to a faculty committee and a public defense of this thesis. The rules governing the composition of this committee are stated on the department's website. This committee must be approved by department Ph.D. Program Director and the Dean of Graduate Studies. All members of the committee shall read and sign the thesis in its final form.

We have two tracks in the M.S. program: a coursework track and a thesis track.

1. For the coursework track, the student must satisfactorily complete at least thirteen Computer Science courses taken for graduate credit, and submit an essay, approved by the program director, explaining how these courses form a coherent whole. At least five of these courses must be numbered 130 or higher. At least one of these thirteen must be an advanced topics graduate course in Computer Science (listed as COSC 149/249, COSC 169/269, and COSC 189/289). Any courses taken outside of the Computer Science department must be approved by the MS Program Director. The student may use up to two research credit courses (e.g., 297–299) to satisfy these requirements, but only if the student earns a P or an HP and the MS Program Director approves the substitution. Per department policy, selected upper-level undergraduate courses may count for graduate credit for the M.S. degree. COSC 191, 200, 210, 295, and 296 do not count for MSCS graduate credit.

2. For the thesis track, the student must satisfy these coursework and research requirements:

a. The student must satisfactorily complete at least nine Computer Science courses taken for graduate credit. At least three of these courses must be numbered 130 or higher. At least one of these nine must be an advanced topics graduate course in Computer Science (listed as COSC 149/249, COSC 169/269, and COSC 189/289). Any courses taken outside of the Computer Science department must be approved by the MS Program Director. No research credit courses (e.g., 297–299) may be used to satisfy these requirements. Per department policy, selected upper-level undergraduate courses may count for graduate credit for the M.S. degree. Computer science courses numbered 100-129 do not qualify for any M.S. required course. COSC 191, 200, 210, 295, and 296 do not count for MSCS graduate credit.

b. By the end of the third term of enrollment, the student must petition to and be accepted for the thesis track by the departmental Master’s committee.

c. The student must successfully complete at least six course equivalents of research from COSC 297, COSC 298, or COSC 299.

d. The student must prepare a thesis acceptable to a faculty committee and give a public defense of this thesis. The thesis should represent mostly independent work, and be of sufficient quality to merit publication (with suitable revision) in a refereed venue. The committee shall be formed for the purpose of guiding the student’s research. The

Requirements for the Master of Science Degree (M.S.)
chair of this committee, who is the student’s primary research advisor, must be a tenure-track or research-track faculty member in the Computer Science department. In addition to the chair, the committee must include at least one other tenure-track or research-track Computer Science faculty member. The committee must comprise at least three faculty members, one of whom may be from outside the Computer Science department, though an outside member is not required. This committee must be approved by the MS Program Director and by the Dean of Graduate Studies. All members of the committee shall read and sign the thesis in its final form. We expect that the thesis, including a copy of the signature page, shall be published as a departmental Technical Report.

All students start out in the coursework track. As noted in 2(b) above, students may then apply to move to the thesis track. (Students may also petition to move back to the coursework track, although we expect that will be uncommon.)

Students are expected to complete the M.S. degree in a maximum period of seven consecutive terms in residence. Summer terms would not count, unless the student is enrolled then.

Students who finish the requirements in fewer than seven terms may remain and take courses in the remaining terms, as long as these courses are approved beforehand by the M.S. Program Director as being an intellectually legitimate part of their graduate education in Computer Science. For these additional terms, students must also meet the appropriate enrollment rules of the Dartmouth's Graduate Office; international students should consult with OVIS for guidance on maintaining their status.

Students who are currently enrolled in a Ph.D. program in a department other than Computer Science at Dartmouth may apply for a tuition scholarship and to be considered for concurrent enrollment.

The Computer Science M.S. degree is not intended to be an outlet for students leaving the Computer Science Ph.D. program (nor is it intended to be a degree concurrent with a Computer Science Ph.D.).

4+1 A.B./M.S. Program in Computer Science

Dartmouth undergraduates can stay for as little as one additional year and obtain an M.S. degree in Computer Science. A student may reduce the number of courses required for the M.S. degree by up to five courses, making possible an M.S. degree with as few as eight additional courses in the coursework track or as few as four additional courses in the thesis track. Each Computer Science course taken as an undergraduate that can count for graduate credit counts toward the limit of five. The eligible courses are those that are cross-listed as graduate courses (those numbered xx/1xx), as well as the courses available for graduate credit that are listed on the department website. Dartmouth Computer Science majors who apply to the 4+1 program need not submit GRE scores.

M.S. Degree in Computer Science with a Concentration in Digital Arts

Students in this concentration complete a mix of Computer Science courses, Digital Arts courses, and research/thesis. They experience a rigorous and focused computer science education, foundational courses in digital arts, and a deep dive into a research topic within the areas of visual computing and digital arts (e.g., computer graphics, human-computer interaction, digital fabrication, digital art and media, computer vision, virtual reality, and artificial reality). Students in this concentration, by design, will come from a wide variety of backgrounds. All students will have successfully completed an undergraduate degree at a four-year college/university (Dartmouth students are encouraged to apply to the Integrated 4+1 A.B./M.S. Program in Computer Science with a Concentration in Digital Arts). All students must have completed the equivalent of Dartmouth's COSC 1 and COSC 10 courses, with a grade of B+ or better and we encourage students to have completed additional courses in algorithms, linear algebra, software engineering, if possible. Students are also expected to have majored or minored in at least one of the areas we consider a foundational area of visual computing and Digital Arts. These areas include, but are not limited to, Computer Science, Digital Arts, Engineering, Studio Art/Design, Computer Animation/Modeling, Computational Photography, Physics, Mathematics, and Architecture.

The M.S. Degree in Computer Science with a Concentration in Digital Arts is divided into three areas: Technical Courses (general graduate-level Computer Science courses); Digital Art Courses; and Research/Thesis Courses. At the end of the program, all students will write a thesis based on their research and then present and defend their work. Courses required for the degree will depend on the background of each student. All students must take at least nine courses and nine research credits. Of the nine courses, at least six must be graduate-level Computer Science courses.

Students are expected to complete their degree in a maximum of seven consecutive terms (excluding the summer). An interim evaluation will be made after each term and continuation within the Master's Program will be recommended for those students whose work demonstrates the capacity for satisfactory independent research. Students who finish the requirements in fewer than seven terms may remain and take courses in the remaining terms, as long as these courses are approved beforehand by the M.S.
Program Director as being an intellectually legitimate part of their graduate education in Computer Science. For these additional terms, students must also meet the appropriate enrollment rules of the Dartmouth's Graduate Office; international students should consult with OVIS for guidance on maintaining their status.

Specific requirements for the M.S. Degree in Computer Science with a Concentration in Digital Arts are as follows:

1. Technical Courses:
   1. Students must satisfactorily complete at least five Computer Science courses with numbers in the ranges (131-189) or (231-289). At least one must be an advanced topics graduate course in Computer Science (listed as COSC 149/249, COSC 169/269, and COSC 189/289). No research credit courses (e.g., 297-299) may be used to satisfy these requirements. Per department and program policy, certain undergraduate courses may fulfill this requirement. A grade of B+ or better is required in Computer Science.
   2. All students must complete COSC 31 and COSC 50 or demonstrate a solid understanding courses graded on an undergraduate scale. All undergraduate courses require written approval from the Director of the Computer Science MSDA program. Courses taken to meet this requirement do not count as one of the five technical courses (above).

2. Digital Arts Courses: Students must take at least two courses in digital arts or related arts fields. One of these must be a Computer Science course numbered 120-129, and one of these must be outside the Computer Science department and might be an undergraduate course. These courses outside the CS department will round out the graduate education and provide hands-on arts (digital arts, performing arts, visual arts, musical arts, design) experience. The Director of the MSDA Program (in consultation with the student's primary research advisor) must approve any courses taken outside the Computer Science department. All Digital Arts coursework must be completed by the end of the fifth term, and a grade of B or better is required in courses graded on an undergraduate scale.

3. Research Requirement: The student must successfully complete at least nine course equivalents of research from COSC 294, COSC 297, COSC 298, or COSC 299.

4. Thesis Requirement: Each student must complete a research project based on independent, original research. Students can work in a team as long as their work is easily identified and with the permission of the research advisor. The research project results in a written thesis. The research/thesis must be approved by the research advisor and successfully defended in an oral presentation, according to the following guidelines:

   1. The student must prepare a thesis acceptable to a faculty committee and give a public defense of this thesis.
   2. The research/thesis should be of sufficient quality to merit publication or exhibition (with suitable revision) in a refereed venue. Projects will be suitable for distribution, use and/or exhibition.
   3. The committee shall be formed for the purpose of guiding the student's research. The chair of this committee, who is the student's primary research advisor, must be a tenure-track or research-track faculty member in the Computer Science department. In addition to the chair, the committee must include at least one other tenure-track or research-track Computer Science faculty member. The committee must comprise at least three members, one of whom may be from outside the Computer Science department or outside Dartmouth, though an outside member is not required. This committee must be approved by the MSDA Program Director and by the Dean of Graduate Studies.
   4. All members of the committee shall read and sign the thesis in its final form.
   5. Students must follow the Guarini Graduate School requirements for the thesis.

Integrated 4+1 A.B./M.S. Program in Computer Science with a Concentration in Digital Arts

We encourage Dartmouth undergraduates to consider staying on for a Computer Science M.S. degree with a concentration in Digital Arts.

Objective and Overview: A 4+1 program to provide Dartmouth undergraduate students an opportunity to acquire a broader and deeper education in Digital Arts through a combination of coursework and independent research under the direction of one of the program faculty. With integration of the courses and a substantial effort in the independent research carried out during the senior year, the M.S. can be obtained in one year directly after completing the A.B. at Dartmouth.

Prerequisites:

Students wishing to enter the program must demonstrate proficiency in each of the following areas: Computer Science and Digital Arts. Such proficiency will normally be demonstrated by completing the following Dartmouth
College courses with at least a B grade prior to entering the Master’s Program: COSC 1, COSC 10, COSC 22, COSC 24, COSC 27. These five courses are the three that comprise the core of the Digital Arts Minor plus COSC 1 and COSC 10, plus three courses numbered COSC 20-29. Students planning to apply for this program must meet with the CS/DA Program Director by the end of their junior year at Dartmouth.

Students are expected to complete their degree within a maximum of five consecutive terms (excluding the Summer). An interim evaluation will be made after each term and continuation within the Master’s Program will be recommended for those students whose work demonstrates the capacity for satisfactory independent research.

Specific Requirements for the Integrated 4+1 A.B./M.S. Program in Computer Science with a Concentration in Digital Arts are as follows:

1. Course Distribution Requirements: This is a four-term program (fall, winter, spring, summer). In addition to the prerequisite courses described above, each student must pass with a grade of P or better six courses in the following distribution:

   • Two of the courses must be COSC 165-179, or COSC 50.
   • At least two of the following: COSC 183, COSC 31, COSC 61, COSC 62, COSC 76, COSC 81, COSC 270, COSC 30, or COSC 189.
   • At least one of the following: COSC 120-129, COSC 56/ENGS 31, ENGS 21, COSC 73, MUS 102, or MUS 103.
   • Courses not listed may be approved by the CS/DA Graduate Director as substitutes for courses above. It is expected that the six courses be completed as early in the program as possible, with at least two courses per term. International students must consult OVIS and comply with any Visa requirements.

2. Students must complete six research credits by passing a combination of COSC 297, COSC 298, and COSC 299.

3. Thesis Requirement: Each student must complete a research project based on independent, original research. Students can work in a team as long as their work is easily identified and with the permission of the CS/DA Graduate Director in consultation with the primary advisor for the thesis. The research project will result in a written thesis. The research/thesis must be approved by the graduate advisor and successfully defended in an oral presentation, according to the following guidelines:

   1. The student must prepare a thesis acceptable to a faculty committee and give a public defense of this thesis.
   2. The research/thesis should be of sufficient quality to merit publication or exhibition (with suitable revision) in a refereed venue. Projects will be suitable for distribution, use and/or exhibition.
   3. The committee shall be formed for the purpose of guiding the student’s research. The chair of this committee, who is the student’s primary research advisor, must be a tenure-track or research-track faculty member in the Computer Science department. In addition to the chair, the committee must include at least one other tenure-track or research-track Computer Science faculty member. The committee must comprise at least three members, one of whom may be from outside the Computer Science department or outside Dartmouth, though an outside member is not required. This committee must be approved by the departmental advisor to M.S. students and by the Dean of Graduate Studies.
   4. All members of the committee shall read and sign the thesis in its final form. We expect that the thesis, including a copy of the signature page, shall be published as a departmental Technical Report.

COSC-Computer-Science

COSC 700 - Responsible and Ethical Conduct of Research
Instructor: Smith/Quattrini Li (2 sections)
Required course for all Computer Science graduate students. Generally consists of five two hour sessions as well as additional reading and preparation.

COSC-Computer Science-Graduate

COSC 121 - Foundations of Digital Design
Instructor: Mahoney
This projects-based course will familiarize students with the fundamentals of digital design, including layout, text, color theory, and UI design. Foundational concepts and the universal principles of design will be explored through extensive analyses and a series of design projects. No previous art or technical experience is required. Work is evaluated on a set of technical and aesthetic criteria and class participation.

Distributive: Dist:ART

COSC 122 - 3D Digital Modeling
Instructor: Loeb
This projects-based lab course teaches the principles and practices of 3D modeling. Lectures focus on principles of modeling, materials, shading, and lighting. Students create a fully rigged character model while learning their way around a state-of-the-art 3D animation program. Assignments are given weekly. Students are graded on the successful completion of the projects, along with a midterm examination. Work will be evaluated on a set of technical and aesthetic criteria.

Distributive: TLA

**COSC 123 - Augmented and Virtual Reality Design**

This hands-on projects-based course exposes students to the aesthetic, technical, and societal issues surrounding the emerging frontiers of digitally mediated realities. Students learn the fundamentals of augmented and virtual reality design and are introduced to interactive development for VR/AR. COSC 23.01/123 and COSC 63.01 have class together and work together on teams. Designers in this course create assets and design the UI/UX while developers build interactive digital tools, games, and visualizations. This course is not open to students who have received credit for COSC 29.22 or COSC 89.22. Additional assignments will be given to graduate students.

Prerequisite: COSC 122

**COSC 124 - Computer Animation: The State of the Art**

Instructor: Hannaway

This hands-on course focuses on state-of-the-art computer animation, presenting techniques for traditional animation and how they apply to 3D computer animation, motion capture, and dynamic simulations. Facial and full-body animation are covered through projects, readings, and presentations, including physical simulation, procedural methods, image-based rendering, and machine-learning techniques. Students will create short animations. This course focuses on methods, ideas, and practical applications, rather than on mathematics.

**COSC 125 - Intro to UI/UX Design I**

COSC 125 is a hands-on projects-based course that teaches the concepts, principles, and practice of User Interface (UI) and User Experience (UX) Design. The course is designed for students with an interest in any form of design, although we focus on the UI/UX of digital tools (e.g., mobile, web, tablets). No previous experience or coding skills needed. Grading is based on weekly assignments, reflections, readings, and in-class exercises that build on each other and are intended to teach the foundational skills and thinking of UI/UX design. This is an intensive, team-based course. Graduate students work with undergraduates as well as graduates and are expected to participate fully. Additional assignments will be given to graduate students.

**COSC 129 - Topics in Digital Arts**

This course studies an advanced topic in Digital Arts that is not covered in the regular curriculum. Students may take this course multiple times, subject to the restriction that the topics are distinct.

**COSC 149 - Topics in Algorithms and Complexity**

Instructor: Chang (Fall), Jayanti, Chakrabarti (Winter), Chakrabarty (Spring)

This course studies an advanced topic in algorithms and complexity that is not covered in the regular curriculum. Students may take this course multiple times, subject to the restriction that the topics are distinct. The subject material differs from course to course depending on the instructor. Please refer to individual course pages for detailed instruction. Not suitable for PhD breadth requirement.

**COSC 162 - Applied Cryptography**

Cryptography is the fundamental building block for establishing and maintaining trustworthy connections and communications in the Internet; it's the first line of defense for keeping adversaries from spying on credit card numbers being sent to Amazon or on whistleblower reports sent to journalists. This course will examine what's in this toolkit: symmetric ciphers, public-key cryptography, hash functions, pseudorandomness. To enable the well-cultured computer scientist to understand how these tools are used in the real world, this course will cover these topics from multiple perspectives: theoretical foundations, use in practical computing, implementation and management challenges, weaknesses and attacks, censorship circumvention, public policy questions, and prospects for the future.

Prerequisite: COSC 30, COSC 50. COSC 51 and COSC 55 are recommended.

Distributive: DIST: TAS

**COSC 165 - Smartphone Programming**

Instructor: Yang

This course teaches students how to design, implement, test, debug and publish smartphone applications. Topics include development environment, phone emulator, key programming paradigms, UI design including views and activities, data persistence, messaging and networking, embedded sensors, location based services (e.g., Google Maps), cloud programming, and publishing applications. Concepts are reinforced through a set of weekly programming assignments and group projects.

Prerequisite: COSC 10
COSC 169 - Topics in Computer Systems
Instructor: Yang (Winter), Campbell (Spring)
This course studies an advanced topic in computer systems that is not covered in the regular curriculum. Students may take this course multiple times, subject to the restriction that the topics are distinct. The subject material differs from course to course depending on the instructor. Please refer to individual course pages for detailed instruction. Not suitable for PhD breadth requirement.

COSC 183 - Computer Vision
This course provides an introduction to computer vision, the art of teaching computers to see. Topics include image formation, feature detection, segmentation, 3D reconstruction from multiple views, motion estimation, and object recognition.
Prerequisite: COSC 1 or ENGS 20; COSC 70/70.01 (formerly COSC 11), or MATH 22, or MATH 24.
Distributive: TAS

COSC 184 - Mathematical Optimization and Modeling
Planning, scheduling, and design problems in large organizations, economic or engineering systems can often be modeled mathematically using variables satisfying linear equations and inequalities. This course explores these models: the types of problems that can be handled, their formulation, solution, and interpretation. It introduces the theory underlying linear programming, a natural extension of linear algebra that captures these types of models, and also studies the process of modeling concrete problems, the algorithms to solve these models, and the solution and analysis of these problems using a modeling language. It also discusses the relation of linear programming to the more complex frameworks of nonlinear programming and integer programming. These paradigms broaden linear programming to respectively allow for nonlinear equations and inequalities, or for variables to be constrained to be integers.
Prerequisite: COSC 1 or ENGS 20; COSC 70/70.01 (formerly COSC 11), or MATH 22 or MATH 24; or permission of the instructor.
Distributive: TAS

COSC 186 - Computational Structural Biology
Computational methods are helping provide an understanding of how the molecules of life function through their atomic-level structures, and how those structures and functions can be applied and controlled. This course will introduce the wide range of complex and fascinating challenges and approaches in computational structural biology, and will give hands-on experience applying and implementing some important methods.
Prerequisite: COSC 10 or permission of the instructor
Distributive: TAS

COSC 189 - Topics in Applied Computer Science
Instructor: Mehnaz, Preum (Fall), Prioleau, Subrahmanian, Zhu, Vosoughi (Winter), Palmer, Yang, Torresani (Spring)
This course studies an advanced topic in applied Computer Science that is not covered in the regular curriculum. Students may take this course multiple times, subject to the restriction that the topics are distinct. The subject material differs from course to course depending on the instructor. Please refer to individual course pages for detailed instruction. Not suitable for PhD breadth requirement.

COSC 191 - Writing, Presenting, and Evaluating Technical Papers in Computer Science
Students will learn how to write technical papers in computer science, how to present technical papers in a conference-talk setting, and how program committees and journal editors evaluate technical papers. Writing topics include the proper use of technical typesetting software, organization of technical papers, and English usage. Students will write technical papers, produce official course notes, and give oral presentations. Enrollment limited.
Prerequisite: Each student must submit a short expository piece to be evaluated by the instructor at the start of the course; only those students meeting a required level of competence will be permitted to take the course for a grade. Students should also have a Computer Science background sufficient to understand research papers.

COSC 200 - Current Topics in Computer Science
In this course, students read, present, and discuss a set of research papers selected to represent particular focus areas in computer science. The course helps students develop skills in critical analysis and communication of computational methods and results, along with an understanding of the general context underlying a research area. All students are expected to make oral presentations and both lead and participate in discussions, and they are evaluated on the quality and effectiveness of the presentations and contributions to discussions. Open only to graduate students, with instructor permission. This course is only available to Ph.D. students. M.S. students may take this course with instructor permission. This course does not count towards the degree requirements.
Distributive: TLA
**COSC 235 - Data Stream Algorithms**

This course studies algorithms that process massive amounts of data; so massive that they will not fit in a computer’s storage. The course will cover a wide variety of techniques for summarizing such large amounts of data into succinct “sketches” that nevertheless retain important and useful information. The course starts from the basics, assuming only a basic knowledge of algorithms, and builds up to advanced techniques from recent research. The necessary mathematical tools are developed within the course.

Prerequisite: COSC 31 or permission of the Instructor.

**COSC 236 - Approximation Algorithms**

Many problems arising in computer science are NP-hard and therefore we do not expect efficient algorithms for solving them exactly. This has led to the study of approximation algorithms where algorithms are supposed to run fast but can return approximate solutions. This course provides a broad overview of the main techniques involved in designing and analyzing such algorithms. It also explores connections between algorithms and mathematical fields such as algebra, geometry, and probability.

Prerequisite: A first course on algorithms and mathematical maturity to read and write proofs will be assumed. Prerequisite Courses: COSC 31, COSC 30.

**COSC 240 - Computational Complexity**

This course covers the basics of computational complexity, whose broad goal is to classify computational problems into classes based on their inherent resource requirements. Five key computational resources are studied: time, space, nondeterminism, randomness, and interaction. Key concepts studied include reductions, the polynomial hierarchy, Boolean circuits, pseudorandomness and one-way functions, probabilistic proof systems, and hardness of approximation.

Prerequisite: COSC 39 or equivalent. Students need to be familiar with the formalism of the Turing Machine and with the notion of NP-completeness.

**COSC 249 - Topics in Algorithm & Complexity**

Instructor: Chang

This course studies an advanced topic in algorithms and complexity that is not covered in the regular curriculum. The subject material differs from course to course depending on the instructor. Please refer to individual course pages for detailed instruction. Suitable for PhD breadth requirement.

**COSC 257 - Compilers**

Instructor: Kommineni

Techniques for automatic translation of programming languages are discussed. The course includes a brief survey of various techniques and formalisms that can be used for describing the syntax and semantics of programming languages, for describing abstract and concrete machine architectures, and for describing program translation and transformation. This course includes a project to construct a compiler that will translate a program written in a high-level language into machine code for a conventional-architecture machine.

Prerequisite: COSC 50. COSC 51 is recommended.

**COSC 258 - Operating Systems**

Instructor: Smith

This course studies how computer operating systems allocate resources and create virtual machines for the execution of user jobs. Topics covered include storage management, scheduling, concurrent processing, shared access to files, synchronization, and data protection. Both abstract models and actual examples of operating systems will be studied.

Prerequisite: COSC 50 and COSC 51

**COSC 267 - Introduction to Human Computer Interaction**

Instructor: Yang

This course provides the fundamentals of human-computer interaction, including human factors, usability, user-centered design, prototyping, and usability evaluation. Students will learn the skills and knowledge to identify users’ needs and limitations through observations and interviews. They will experience rapid prototyping and will learn common HCI evaluation techniques, such as qualitative and quantitative methods, to evaluate their designs and implementations. Additionally, students will be exposed to the state-of-the-art research within HCI.

Prerequisite: COSC 10

**COSC 268 - Advanced Operating Systems**

This course covers advanced topics in operating systems, including issues such as the hardware/software interface, operating-system structure, CPU scheduling, concurrency, virtual memory, interprocess communication, file systems, protection, security, fault tolerance, and transaction processing. The course also considers many of these topics in the context of distributed systems.

Prerequisite: A grade of B+ or better in COSC 58/258, or passing an examination administered by the department to demonstrate competency in the material of COSC 58/258.

**COSC 269 - Topics in Computer Systems**

This course studies an advanced topic in Computer Systems that is not covered in the regular curriculum. The subject material differs from course to course depending
Computational photography lies at the intersection of photography, computer vision, image processing, and computer graphics. At its essence, it is about leveraging the power of digital computation to overcome limitations of traditional photography. The course will cover the optics of cameras and sensors, how cameras form images, and how we can represent them digitally on a computer. We will focus on software techniques like image processing algorithms for photography, high-dynamic-range photography and tone mapping, and the math and algorithms behind popular image manipulation tools like Photoshop. Coursework will include taking some photos and implementing several algorithms to manipulate those photos in weekly programming assignments (in C). We will also read, present and discuss recent research papers in the field. By the end of the term, students should have an understanding of the capabilities and limitations of photography today, and have sufficient background to implement new solutions to photography challenges.

Prerequisite: COSC 10 and COSC 70/70.1 (formerly COSC 11); COSC 50 is recommended.

COSC 274 - Machine Learning and Statistical Data Analysis

Instructor: Subrahmanian (Fall, Winter), Vosoughi (Spring)

This course provides an introduction to statistical modeling and machine learning. Topics include learning theory, supervised and unsupervised machine learning, statistical inference and prediction, and data mining. Applications of these techniques to a wide variety of data sets will be described.

Prerequisite: COSC 1 or ENGS 20; MATH 22 or MATH 24

Distributive: Subrahmanian, Vosoughi (Fall), Torresani (Winter), Subrahmanian, Vosoughi (Spring)

COSC 275 - Introduction to Bioinformatics

Bioinformatics is broadly defined as the study of molecular biological information, and this course introduces computational techniques for the analysis of biomolecular sequence, structure, and function. While the course is application-driven, it focuses on the underlying algorithms and information processing techniques, employing approaches from search, optimization, pattern recognition, and so forth. The course is hands-on: programming lab assignments provide the opportunity to implement and study key algorithms.

Prerequisite: COSC 10. COSC 30 is recommended.

COSC 276 - Artificial Intelligence

Instructor: Quattrini Li (Fall), Subrahmanian (Spring)

An introduction to the field of Artificial Intelligence. Topics include games, robotics, motion planning, knowledge representation, logic and theorem proving, probabilistic reasoning over time, understanding of natural languages, and discussions of human intelligence. Students will write software that implements solutions to classical problems in Artificial Intelligence. Graduate students will also be expected to read papers and report on current and past research in the field.

Prerequisite: COSC 10. COSC 30 is recommended.

COSC 277 - Computer Graphics

Instructor: Jarosz

This course provides a broad introduction to the mathematical and programmatic foundations of computer graphics, including modeling, rendering (drawing), and animating three-dimensional scenes. Topics include digital image representation, two- and three-dimensional shape representations (e.g. parametric curves and surfaces, meshes, subdivision surfaces), geometrical transformations (e.g. rotations, scales, translations, and perspective projection), rigging and skinning, the rasterization pipeline, ray tracing, illumination and shading models, texturing, and light & visual perception. Coursework typically includes a mix of programming assignments, quizzes/hand-written work, assigned readings, and a final project. Knowledge of basic linear algebra and programming skills are assumed.

Prerequisite: COSC 50; COSC 70/70.01 (formerly COSC 11) or MATH 22/24; or instructor permission if the above two prerequisites are not fulfilled.

COSC 278 - Deep Learning

This course provides an introduction to deep learning, a methodology to train hierarchical machine learning models using large collections of examples. Deep learning is a special form of machine learning where rich data representations are simultaneously learned with the model, thus eliminating the need to engineer features by hand.

The course begins with a comprehensive study of feedforward neural networks, which are the model of choice for most hierarchical representation learning algorithms. Other models covered in this course include convolutional neural networks, restricted Boltzmann...
machines, autoencoders, sparse codes. Several lectures are devoted to discuss strategies to improve the bias-variance tradeoff, such as regularization, data augmentation, pre-training, dropout, and multi-task learning. The course also studies modern applications of deep learning, such as image categorization, speech recognition, and natural language processing.

Prerequisite: COSC 74/174

**COSC 281 - Principles of Robot Design and Programming**

Instructor: Quattrini Li

This course is a hands-on introduction to robotics. Students will build robots, program robots, and learn to mathematically model and analyze manipulation and locomotion tasks. Topics include kinematics and dynamics of rigid-body motion, motion planning, control, mechanics of friction and contact, grasping, sensing, uncertainty in robotics, and applications of robots.

Prerequisite: COSC 70/70.01 (formerly COSC 11), or COSC 01 and Math 22/24. COSC 10 and COSC 50 are recommended.

**COSC 287 - Rendering Algorithms**

Instructor: Jarosz

This class is intended for students interested in obtaining a deep technical understanding of the physically based rendering techniques used to produce photorealistic images in animated films, visual effects, or architectural and product visualizations.

Students will learn how light behaves and interacts with objects in the real world and how to translate the underlying math and physics into practical algorithms for creating photorealistic images. The course will provide a detailed treatment of the industry-standard Monte Carlo methods for light transport simulation, such as path tracing, bidirectional path tracing, and photon mapping.

Each major topic will also be accompanied by a programming assignment where students implement these algorithms within their own software framework to obtain practical experience. Additional coursework includes quizzes/handwritten exercises and assigned readings. At the end of the term, each student will work on a self-directed final project that extends their rendering software with additional features of their own choosing with the goal of creating a photorealistic image.

Prerequisite: COSC 70/70.01 (formerly COSC 11) and COSC 50; or Instructor’s Permission.

**COSC 289 - Topics in Applied Computer Science**

This course studies an advanced topic in Applied Computer Science that is not covered in the regular curriculum. The subject material differs from course to course depending on the instructor. Please refer to individual course pages for detailed instruction. Suitable for PhD breadth requirement.

**COSC 210 - Computer Science Colloquium**

**COSC 271 - Numerical Linear Algebra (Formerly COSC 240)**

The course examines in the context of modern computational practice algorithms for solving linear systems $Ax = b$ and $Az = \lambda x$. Matrix decomposition algorithms, matrix inversion, and eigenvector expansions are studied. Algorithms for special matrix classes are featured, including symmetric positive definite matrices, banded matrices, and sparse matrices. Error analysis and complexity analysis of the algorithms are covered. The algorithms are implemented for selected examples chosen from elimination methods (linear systems), least squares (filters), linear programming, incidence matrices (networks and graphics), diagonalization (convolution), sparse matrices (partial differential equations).

Prerequisite: COSC 71, MATH 26, or ENGS 91. Students are to be familiar with approximation theory, error analysis, direct and iterative techniques for solving linear systems, and discretization of continuous problems to the level normally encountered in an undergraduate course in numerical analysis.

Cross-Listed as: ENGS 106 and MATH 116

**COSC 294 - Reading Course**

Instructor: Smith

**COSC 295 - Experiential Learning in Graduate Computer Science**

Instructor: Smith

This course requires an internship which is designed to provide students with an opportunity to apply academic principles and skills in real situations outside the classroom. This course does not count toward the number of courses required for any degree. Students receive a pass/fail grade based on evaluation from on-site, internship supervisor. Permission of the student's degree program director is required. Students may take this more than once, and typically in the summer term (although other patterns are possible, if approved by the program director).

**COSC 296 - Supervised Undergraduate Teaching**

Instructor: Jayanti (Fall), Chakrabarti (Winter, Spring, Summer)

May be taken multiple times for credit. One course equivalent.
COSC 297 - Graduate Research
Instructor: Jayanti (Fall), Chakrabarti (Winter, Spring, Summer)
Student participates in research under the supervision of a faculty member. May be taken multiple times for credit. One course equivalent. Permission required.

COSC 298 - Thesis Research
Instructor: Jayanti (Fall), Chakrabarti (Winter, Spring, Summer)
Student participates in research under the supervision of a faculty member. May be taken multiple times for credit. Two course equivalents. Permission required.

COSC 299 - Full-Time Thesis Research
Instructor: Jayanti (Fall), Chakrabarti (Winter, Spring, Summer)
Student participates in research under the supervision of a faculty member. May be taken multiple times for credit. Three course equivalents. Permission required.

Digital Musics - Graduate
Chair: William Cheng

Professors M. Casey, W. Cheng, K. Dong, T. C. Levin, S. Pinkas, S. R. Swayne; Associate Professor A. Fure; Assistant Professors C. Alvarez, R. Beaudoin; Mellon Faculty Fellow A. Martin; Senior Lecturers N. V. Boyer, L. G. Burkot, M. L. Cassidy, G. M. Hayes, E. C. Mellinger, J. D. Muratore, S. W. Nam, J. E. Polk, M. Zsoldos; Lecturers R. L. Braude, T. H. Bynum (Director, Coast Jazz Orchestra at Dartmouth), E. Carroll, F. Ciabatti (Director, Dartmouth Symphony Orchestra and Interim Director Glee Club and Handel Society), W. L. Cunningham (Director, Contemporary Pop Ensembles), K. Doty, J. Dunlop, M. Eckroth, J. Ennis, A. Garapic, O. Guey, J. Halloran, P.J. Kennelly, B. E. Messier (Director, Dartmouth Wind Ensemble and Marching Band), R. Moseley, P. M. Webster; Adjunct Associate Professor H. F. Shabazz; Postdoctoral Fellow with the Society of Fellows D. Simon.

To view Music Undergraduate courses, click here.
To view Music Graduate requirements, click here.
To view Music Graduate courses, click here.

Requirements for the Master of Arts Degree (M.A.) in Digital Musics
The field of digital music requires knowledge and skills in music, computer science, cognition or neuroscience, engineering or physics, as well as some significant expertise in one or more of these disciplines. In addition to music, graduate students in our program may bring to bear experience in other, widely diverse fields (such as visual art, philosophy, mathematics, etc.). Candidates for admission to the Master of Arts program typically hold one of the following degrees, together with relevant experience:

1. Music: A bachelor’s degree in music or equivalent experience and demonstrated accomplishment in musical composition and/or performance.
2. Computer Science: A bachelor’s degree in computer science or equivalent experience. This might include knowledge of applied mathematics, machine learning, or related areas of science and engineering.
3. Engineering Sciences or Physics: A bachelor’s degree in engineering sciences or physics, or equivalent experience. This could include knowledge of acoustics, digital electronics and microprocessors, techniques of modeling and analyzing systems, or general hardware design.
4. Music Cognition: Demonstrated knowledge and experience in the field.
5. Proven excellence or demonstrated potential in some other field, in preparation for advanced work in digital musics.

Regardless of a student’s area of specialization within the program, the requirements for completion of the Master of Arts Degree in Digital Musics include:

1. A minimum of seven terms in residence.
2. Demonstrated experience and expertise on an acoustic musical instrument; an understanding of Western music theory that includes four-part harmony, modulation, and form and analysis; a knowledge of musical styles that includes the music of the world’s peoples, twentieth-century art music, American popular music and traditional Western art music.
3. Enrollment in the Proseminars in Music and Technology (MUS 101-105), given each term, for a total of 6 graduate seminars. Students generally take each Proseminar at least once, Composition (MUS 104), twice.
4. A number of electives in different disciplines (as well as music), including, but not limited to engineering, psychology, computer science, mathematics and physics. The electives and the specific courses in computer science and engineering will depend on the student’s background and area of specialization within the program. Electives may be used to remedy deficiencies in mathematics, computer science, engineering, or music.
5. Directed research (thesis courses). Two courses (MUS 138) taken under the joint supervision of a member of
the music faculty and a member of another cooperating department.

6. A thesis approved by the student’s graduate committee demonstrating a mastery of the materials in the student’s area of concentration within the program.

MUS - Music - Graduate Courses

MUS 700 - Responsible and Ethical Conduct of Research
Instructor: Alvarez
Required course for all Digital Musics graduate students. Generally consists of five two hour sessions as well as additional reading and preparation.

Proseminars

MUS 101 - Topics in the Repertoire of Electro-Acoustic and Computer Music
Instructor: Fure
There exists a body of music that has not been widely heard because its radical style and content do not make it a commodity suitable for widespread distribution. A knowledge and understanding of this repertoire provides an important historical and musical background to recent, current, and future work, and is essential to creative work in the field. In this seminar students will systematically examine the repertoire of electro-acoustic and computer music, through its aesthetics, theories, concepts, techniques, and technologies as well as its historical and cultural contexts.

MUS 102 - Music, Mind, Invention
Instructor: Casey
This course explores musical sensors and sensing of the body and the brain for enactive performance systems. Topics include sensor basics, measuring electrophysiology, musical performance parameters, gestures, listening, and imagination using EEG, EMG, ECG, and bio-feedback.

Cross-Listed as: MUS 14.01

MUS 103 - Sound Analysis, Synthesis, and Digital Signal Processing
Instructor: Bynum
This seminar covers topics in sound analysis, synthesis and digital signal processing from theoretical, mathematical, and practical perspectives. Topics include important ideas in the history of digital and analog synthesis, and will draw on classical models as well as current and future techniques. Standard and speculative algorithms for digital sound processing will be analyzed in depth. Students will realize many of these ideas in a variety of digital music environments.

MUS 104 - Computer Music Composition
Instructor: Fure
A seminar in techniques of composition for digital, acoustic and electro-acoustic instruments. Certain insights into the systems, poetics, and structure of music can only be gained through the activity of composition itself. In this respect, the activity of composing is of particular benefit to students with a primarily scientific background. Exercises are designed to explore diverse contemporary compositional materials, forms, and activities.

MUS 105 - Musical Systems
Instructor: Alvarez
This course examines advanced theories of form, structure, composition, performance and interaction, and deals with their realization in functional systems for research, theoretical and artistic purposes. A special emphasis will be to bridge the gap between abstract theory and concrete implementation. Theoretical ideas covered in this class might include: computer-aided composition, non-deterministic algorithms, interaction design, perceptual modeling, artificial intelligence in music, meta-theory, biosystems, and evolutionary models. Implementations might include: interactive environments, music languages, compositional software, musical instruments, learning systems, and adaptive systems.

MUS 137 - Directed Research I
Instructor: Casey

MUS 138 - Directed Research II
Instructor: Fure
Equivalent to two courses.

MUS 139 - Directed Research III
Instructor: Alvarez
Equivalent to three courses.

Earth Sciences - Graduate
Chair: Carl E. Renshaw
Professors X. Feng, C. E. Renshaw, M. Sharma; Professor Emeritus J. L. Aronson, Professor Emeritus W. B. Dade; Professor Emeritus G. D. Johnson; Associate Professors R. L. Hawley, M. A. Kelly, L. J. Sonder, E. C. Osterberg; Assistant Professors M. Palucis, W. Leavitt, J. V. Strauss; Research Associate Professor B. P. Jackson; Research Instructor E. E. Meyer; Adjunct Professors F. J. Magilligan, K. Peterson; Adjunct Assistant Professor J. W. Chipman, J. Winter.
Requirements for the Masters Degree

General requirements of the Master of Science (MS) degree at Dartmouth College include three terms of residence and seven courses of graduate level, not more than four of which may be replaced by research or special study approved and supervised by the department.

To be considered for admission to the MS program a prospective student must:

1. Complete the equivalent of the following Dartmouth Courses: MATH 3 and MATH 8.
2. Complete the equivalent (or higher) of any two of the following Dartmouth course sequences:
   - CHEM 5 and CHEM 6;
   - PHYS 3 and PHYS 4 (or PHYS 13 and PHYS 14);
   - Any two among BIOL 11 through BIOL 16.

In the case where a student is admitted into the MS program without having completed these prerequisites, the student must fulfill these prerequisites in addition to the specific degree requirements described below.

To fulfill the specific requirements of the Department of Earth Sciences for an MS degree, a student must:

1. Successfully complete six courses eligible for graduate credit (EARS 100 and above) at the discretion of the thesis committee. These courses must include EARS 201, EARS 202, and EARS 203 and either EARS 117 or EARS 118. Courses not eligible for course credit toward a graduate degree include thesis research (EARS 141-143), and teaching (EARS 149).
2. Complete the equivalent of three terms of thesis research for registered credit (EARS 141-143).
3. Complete a thesis of professional quality, with a view to scholarly publication, and pass a final oral examination on the topic of the thesis.

Requirements for the Ph.D. Degree

General requirements for the Ph.D. degree are given in the Regulations for Graduate Study section. In fulfillment of the specific requirements of the Department of Earth Sciences, the student must:

1. Satisfy all course requirements for the MS degree
2. Pass the following required courses or their equivalents, if not passed prior to entering the Ph.D. Program.
   - EARS 107. Mathematical Modeling in the Earth Sciences
   - EARS 118. Advanced Methods for Environmental Data Analysis

One upper level science or engineering course outside the department carrying graduate credit. This may include CHEM 51, ENGG 24 or ENGG 34, or other courses approved by the Department.

3. Pass a minimum of nine courses carrying graduate credit, including those fulfilling the above requirements. Courses not eligible for course credit toward a graduate degree include departmental seminar (EARS 121), special project research (EARS 131), thesis research (EARS 141-143), and teaching (EARS 149).
4. Present and defend a summer research project before the faculty.
5. Pass a general qualifying exam.
6. Present and defend a thesis proposal before the faculty.
7. An essential element of graduate education at Dartmouth is the experience gained in teaching other students. Therefore, at least one term of undergraduate teaching is required of all graduate students. Students may participate in more than one term of teaching. Each student’s program will be arranged, according to his/her individual needs and interests, and the teaching needs of the Department.

A candidate who has satisfied the above requirements will receive a Ph.D. degree after he or she has:

1. Passed any additional graduate-level courses beyond those specified above, as prescribed by the Department.
2. Completed a thesis of professional quality. The thesis may be a series of publishable papers connected by appropriate text. The candidate must pass a final oral examination on the thesis.

Earth Sciences

EARS 700 - Responsible and Ethical Conduct of Research

Instructor: Osterberg

Required course for all Earth Sciences students. Generally consists of five two hour sessions as well as additional reading and preparation.
EARS 107 - Mathematical Modeling of Earth Processes
Instructor: Sonder, Morlighem
Physics and mathematics of processes in the Earth, including chemical and thermal diffusion, mechanics of lithospheric deformation, and chemical fractionation. Sonder.
Prerequisite: MATH 13 or equivalent or permission of instructor

EARS 108 - Radiogenic Isotope Geochemistry
Prerequisite: EARS 62 or EARS 73 or equivalent

EARS 117 - Analysis of Environmental Data
Instructor: Feng
Topics such as acid deposition, watershed pollution, water quality, acid mine drainage and climatic change are used to introduce the fundamentals of environmental data analysis, including uncertainty and hypothesis testing, error propagation, regression, and experimental design. Students are required to analyze their own research data as part of their final project.
Distributive: QDS

EARS 118 - Advanced Methods for Environmental Data Analysis
Instructor: Feng
Advanced methods of environmental data analysis are introduced with real world examples in environmental science. The course starts with a quick review of the fundamental statistical concepts, such as hypothesis testing, power of statistical tests and experimental design. The advanced methods include time series analysis, spatial data analysis (geostatistics), and multivariate analysis (such as multiple correlation, PCA, factor analysis, etc.).
Prerequisite: EARS 17 or EARS 117 and MATH 3 or the equivalents

EARS 119 - Stable Isotope Geochemistry
Prerequisite: EARS 62 or EARS 73 or equivalent

EARS 121 - Graduate Seminar

EARS 124 - Analytical Chemistry and Inorganic Instrumental Analysis (Identical to, and described under, Chemistry 124)
Instructor: Jackson and Pichler
Prerequisite: CHEM 5 and CHEM 6 or equivalents or permission of instructor
Cross-Listed as: CHEM 124

EARS 128 - Introduction to Polar Systems (Identical to BIOL 138)
Instructor: Virginia
This course will examine current polar science that has relevance to critical environmental issues and policies for the high latitude regions. It will provide a foundation on topics such as ice core interpretation, declining sea ice and changes in ice sheet dynamics, alterations in the terrestrial and marine carbon cycles, and climate change impacts on polar biodiversity. The later portion of the course will focus on the development of a group interdisciplinary research project.
Cross-Listed as: BIOL 138

EARS 131 - Project Research
Instructor: Hawley
Research under the guidance of a staff member on a topic unrelated to the thesis.

EARS 141 - Level I - Thesis Research (one-course equivalent)
Instructor: Hawley

EARS 142 - Level II - Thesis Research (two-course equivalent)
Instructor: Hawley

EARS 143 - Level III - Thesis Research (three-course equivalent)
Instructor: Hawley

EARS 145 - Field Methods
Instructor: Slotznick, Palucis

EARS OCP STRETCH Teaching Assistant Course

EARS 149 - Supervised Teaching in Earth Sciences
Instructor: Hawley
Not open to undergraduates.

EARS 151 - Mineralogy and Earth Processes
Instructor: Slotznick
Prerequisite: EARS 40 and CHEM 5 or equivalents
Cross-Listed as: Described under EARS 51

EARS 152 - Structural Geology (described under Earth Sciences 52)
Instructor: Sonder
See EARS 52 for course description
Prerequisite: EARS 40 or equivalent or permission of the instructor
Cross-Listed as: Described under EARS 52

**EARS 158 - Sedimentary Petrology (described under Earth Sciences 58)**

Instructor: Slotznick

Prerequisite: EARS 40 or equivalent or permission of instructor

Cross-Listed as: Described under EARS 58

**EARS 159 - Igneous and Metamorphic Petrology**

Instructor: Keller

Prerequisite: EARS 40 or equivalent or permission of the instructor

Cross-Listed as: Described under EARS 59

**EARS 162 - Geochemistry (described under Earth Sciences 62)**

Instructor: Sharma

See EARS 62 course description

Prerequisite: CHEM 6 or equivalent or permission of the instructor

Cross-Listed as: Described under EARS 62

**EARS 164 - Geophysics (described under Earth Sciences 64)**

Instructor: Sonder

Prerequisite: MATH 3 or equivalent or permission of the instructor. MATH 8 or equivalent is advisable, but not required

Cross-Listed as: Described under EARS 64

**EARS 165 - Remote Sensing (described under Earth Sciences 65)**

Instructor: Palucis

Cross-Listed as: Described under EARS 65

**EARS 166 - Hydrogeology**

Instructor: Renshaw

Prerequisite: MATH 3 or equivalent or permission of the instructor

Cross-Listed as: Described under EARS 66

**EARS 167 - Environmental Geomechanics (described under Earth Sciences 67)**

Instructor: Renshaw

Prerequisite: MATH 23 or equivalent or permission of the instructor

Cross-Listed as: Described under EARS 67

**EARS 170 - Glaciology (described under Earth Sciences 70)**

Instructor: Hawley

Prerequisite: PHYS 3 and MATH 3 or equivalents. EARS 33 or equivalent is recommended

Cross-Listed as: Described under EARS 70

**EARS 171 - River Processes and Watershed Science (described under Earth Sciences 71)**

Instructor: Magilligan

Prerequisite: EARS 16 or EARS 33 or BIOL 23 or equivalent or permission of the instructor

Cross-Listed as: Described under EARS 71

**EARS 172 - Geobiology (described under Earth Sciences 72)**

Instructor: Leavitt

Prerequisite: CHEM 5 or equivalent or permission of the instructor. EARS 31 or BIOL 16 or equivalent recommended

Cross-Listed as: Described under EARS 72

**EARS 173 - Environmental Isotope Geochemistry**

Instructor: Feng

Prerequisite: CHEM 5 or equivalent or permission of the instructor

Cross-Listed as: Described under EARS 73

**EARS 174 - Soils and Aqueous Geochemistry**

Instructor: Jackson

See EARS 74 for course description

Prerequisite: CHEM 5 and EARS 62 or equivalents or permission of instructor

Cross-Listed as: EARS 74

Distributive: SLA

**EARS 175 - Quaternary Paleoclimatology**

Instructor: Kelly

See EARS 75 for course description

Prerequisite: EARS 15 or ENGS 172 or equivalent or permission of the instructor

Cross-Listed as: Described under EARS 75

**EARS 176 - Advanced Hydrology**

See EARS 76 for course description
EARS 177 - Environmental Applications of GIS
(Identical to, and described under, Geography 59)
Instructor: Strauss, Chipman
Cross-Listed as: GEOG 59
Distributive: TLA

EARS 178 - Climate Dynamics
Instructor: Osterberg
This course focuses on the physics that govern the circulation of the atmosphere and ocean, and the dominant patterns of climate variability that we observe today. We explore global-scale atmospheric dynamics that explain why the atmosphere behaves as observed. We also use scientific literature to investigate the signature and causes of regional ocean-atmosphere variability including the El-Nino Southern Oscillation, monsoons, and North Atlantic Oscillation, and the influence of climate change on these patterns.
Prerequisite: Math 8 or equivalent and EARS 14 or EARS 15 or equivalent, or Instructor Permission
Distributive: SCI

EARS 179 - Special Topics

EARS 201 - Fundamentals and Pedagogy in Earth Sciences
Instructor: Slotznick, Strauss
This course aims to develop some of the fundamental concepts and skills of geology as well as to provide teaching experience. We will use the rich geological history of New England as our training ground for learning and reviewing geologic concepts and practicing field skills. In order to provide ample background, we will read classic texts and recent, cutting-edge papers on the geology of New England. We will also conduct local and regional field trips to investigate exposures and hone field skills. In preparation for graduate teaching responsibilities, as well as for further careers in teaching, we will learn about and discuss pedagogy. Students will develop and present an introductory-level earth sciences lecture and provide critiques of other students’ presentations. Finally, this course will help focus students’ graduate research projects through class discussions and final presentations. Not open to undergraduates. Staff.

EARS 202 - Critical Analysis in Earth Sciences
Instructor: Sharma, Renshaw
EARS 202 – Critical analysis in Earth Sciences
A part of the core curriculum required of all graduate students. Critical analysis of the primary literature is central to the advancement of Earth Science. This course focuses on the critical reading skills required to access the literature using foundational papers of students’ choosing. Class sessions will center on student-led presentations and analyses of these papers. In addition to critical reading, students will learn oral presentation skills for communicating science, with an emphasis on the science behind effective presentations. Students will learn how to provide structured critiques of presentations as a means of providing feedback to one another. Not open to undergraduates.

EARS 270 - Topics in Ice and Climate (Graduate Seminar)
Instructor: Hawley, Osterberg
This seminar uses primary literature to examine topics in ice and climate including glaciology, glacial geology, Quaternary geology as well as present and past climate systems. The course helps students develop skills in critical analysis and communication, along with an understanding of the general context underlying the fields. All students will both lead and participate in discussions.

EARS 272 - Topics in Historical Geobiology (Graduate Seminar)
Instructor: Leavitt, Palucis
This seminar uses primary literature to examine the interactions between Earth and life over geological timescales. The course helps students develop skills in critical analysis and communication, along with an understanding of the general context underlying the field of historical geobiology. All students will both lead and participate in discussions.

Ecology, Evolution, Environment & Society - Graduate
Co-Chairs: Matthew P. Ayres and Michael E. Cox

To view Ecology, Evolution, Environment and Society courses, click here.

Requirements for Advanced Degrees
The general requirements for advanced degrees are given in the Regulations for Graduate Study section. Each graduate student must receive credit for a set of courses chosen in consultation with the advisory committee. All graduate students are expected to participate in departmental colloquia and weekly seminars.

To receive the Ph.D. degree in EEES a candidate must satisfactorily:

1. Complete the course requirement, as described above.
2. Complete the teaching requirement as specified by the advisory committee.
3. Demonstrate mastery of conceptual and factual material in the major area of specialization in an oral examination.
4. Present and satisfactorily defend a thesis proposal before the advisory committee.
5. Satisfy the two-year residence requirement of the College.
7. Defend the dissertation before a faculty committee appointed for this purpose.

Although the graduate program is designed for students pursuing the Ph.D. degree, a master’s degree may be awarded under special circumstances. To receive an M.S. degree in EEES, a candidate 1) must satisfactorily complete course and teaching requirements, as specified by the advisory committee, 2) complete a thesis, 3) defend the thesis in an oral examination before a faculty committee, and 4) satisfy the one-year residence requirement of the College.

EEES

EEES 119 - Design and Development of Scientific Proposals
Instructor: McPeek
This graduate seminar and practicum focuses on design and development of scientific research proposals in Ecology, Evolution, Environment and Society. Emphasis is placed on the formulation and design of testable scientific ideas and the development and execution of a realistic research proposal (typically following NSF proposal format). Students provide critical evaluation of each other's ideas and written work throughout the course. Offered in alternate years.

Prerequisite: Permission of instructor
Cross-Listed as: BIOL-119

EEES 120 - Advanced Population Ecology
Instructor: McPeek
Held concurrently with BIOL 21/51. This course explores theory and data regarding properties of biological populations. Topics of lectures and analytical exercises include: descriptions of abundance, dispersion, and demographic schedules; applying life tables and matrix models to understand population growth and age structure; life history theory; influence of endogenous feedbacks and exogenous forces on population dynamics; spatial patterns and processes; and contributions of population ecology to applied issues in conservation, pest management, human demography, and the management of harvested populations. Offered in alternate years.

Cross-Listed as: BIOL-120

EEES 123 - Advanced Community Ecology
Instructor: McPeek
Held concurrently with BIOL 58. This course will examine the various mechanisms structuring ecological communities of plants and animals. The course will consist of regular lectures, readings from the primary literature, and individual projects. Topics to be covered include simple two-species interactions (e.g. predation, competition, parasitism, mutualisms), simultaneous multispecies interactions, food web structure, regulation of species diversity on ecological and evolutionary time scales, community succession, and biogeography. Emphasis will be placed on the development of mathematical models and their relationship to empirical studies. Offered in alternate years.

Cross-Listed as: BIOL-123

EEES 125 - The Nature and Practice of Science
Instructor: Ayres
This course compares and contrasts the nature and practice of science across the range of contemporary biological disciplines. Topics include: What is science? What is the structure of scientific knowledge? What are the philosophical, logical, and practical aspects of hypothesis testing? What are intellectual strategies for successful research in biology? What is the role of ethics in science? Format includes readings, exercises, and discussion. Offered in alternate years.

Cross-Listed as: BIOL-125

EEES 127 - Biostatistics

Instructor: Cottingham

Held concurrently with BIOL 29. The course will cover basic descriptive statistics, simple probability theory, the fundamentals of statistical inference, regression and correlation, t-tests, one-way analysis of variance, basic analyses of frequency data and non-parametric statistics, and the general philosophy of experimental design. We will explore these topics from the perspective of biological applications. Examples will be drawn from all subdisciplines of biology (e.g. biochemical kinetics, development, physiology, ecology, and evolution).

Cross-Listed as: BIOL-127

EEES 128 - Biostatistics II

Instructor: B. Calsbeek

Held concurrently with BIOL 59. This is an advanced course in statistics and experimental design, as applied to biological systems. There will be lectures and computer laboratories, regular homework assignments, and a major term project of statistical analysis. Topics covered include analysis of variance, generalized linear models and logistic regression, multivariate analysis methods, experimental design, and an introduction to Bayesian methods. Emphasis will be placed on the use of statistical programming for performing analyses.

Prerequisite: Graduate standing and at least one elementary course in statistics

Cross-Listed as: BIOL-128

EEES 129 - Biostatistics III: Generalized Linear Mixed Models

Instructor: The staff

This course covers the modern techniques of building linear statistical models to analyze observational and experimental data that follows many different probabilistic distributions (e.g., normal, binomial, Poisson, exponential, geometric).

Prerequisite: BIOL-128 or EEES-128

Cross-Listed as: BIOL-129

EEES 130 - Global Environmental Science

Instructor: Lutz

Held concurrently with ENVS 30. This course examines human influences on global environmental systems with an emphasis on understanding the major biogeochemical cycles. It investigates how human activities (e.g. deforestation, changes in biodiversity, air pollution, desertification) can disrupt environmental processes and the ability of our global environment to support and sustain life. Important feedbacks between biological and physical processes and the atmosphere are also considered in detail. The course explores how natural and managed ecosystems respond to a changing climate and altered resource availabilities along with prospects for the future. Additionally, it examines international science programs and policies that aim to limit excessive human disruption of the global environment. Graduate students in EEES 130 will be required to supplement the typical assignments with an additional writing assignment that incorporates elements of the course material into their current line of scientific inquiry.

EEES 133 - Foundations in Ecology

Instructor: Ayres

In this graduate course, students will read and discuss a series of classic and contemporary papers taken from the primary literature on various topics in ecology and evolutionary biology. Each week a series of lectures will be given and a set of 2-4 papers will be discussed covering a different major topic. The papers will be chosen to expose students to the foundations of major ideas and theories in ecology and evolution and to contemporary tests of these major theories. This course covers topics in ecosystem and community ecology, natural selection and adaptation, and research approaches in ecology and evolution. Offered in alternate years.

Cross-Listed as: BIOL-133

EEES 134 - Foundations in Evolutionary Biology

Instructor: R. Calsbeek

Held concurrently with BIOL 60.02. In this graduate course, students will read and discuss a series of classic and contemporary papers taken from the primary literature on various topics in ecology and evolutionary biology. Each week a series of lectures will be given and a set of 2-4 papers will be discussed covering a different major topic. The papers will be chosen to expose students to the foundations of major ideas and theories in ecology and evolution and to contemporary tests of these major theories.
Theories. The course covers topics in population biology, population genetics, speciation, and macroevolution.

Cross-Listed as: BIOL-134

**EEES 135 - Foundations in Ecosystems & Society**

Instructor: Ogden

EEES 135 serves as one of two foundational courses for graduate students in the Ecology, Evolution, Environment & Society graduate program. The goal of the course is twofold: introduce all graduate students in the program to key debates within the environmental social sciences; and, develop an interdisciplinary community for each cohort of incoming students. The seminar is organized around key approaches to understanding human environmental relations and change at multiple temporal and spatial scales. Course materials draw from different interdisciplinary approaches including environmental economics, political ecology, community conservation, environmental justice, environmental governance, policy, and others. Offered in alternate years.

**EEES 136 - Ecology and Society Interdisciplinary Workshop**

Instructor: G. Smith

The EEES Interdisciplinary Workshop on Ecology and Society brings together scholars from across Dartmouth College whose research focuses on the social and cultural processes influencing environmental outcomes. Bringing an interdisciplinary approach allows participants to engage with different theories, methods, and approaches of human environment scholarship and better understand the cross-cutting themes emerging across the environmental social sciences. From global climate change, habitat loss and species endangerment, desertification and deforestation, and the effects of rapid urbanization across the globe, this workshop provides an interdisciplinary space for graduate students to explore and understand these emerging themes and to better understand the emerging opportunities and challenges for interdisciplinary work.

**EEES 137 - Ecology and Evolution Interdisciplinary Workshop**

Instructor: Amichai

The EEES Interdisciplinary Workshop on Ecology & Evolution brings together scholars from across Dartmouth College whose research focuses on the advancement of basic knowledge in ecology and evolutionary biology. Areas of inquiry include: the perception and responses of organisms to their environment; the dynamics of genomes, organisms, populations and communities in ecological evolutionary time; and the properties of communities and ecosystems that permit and constrain resilience in the presence of environmental change.

**EEES 140 - Climate Extremes on a Warming Planet**

Instructor: Mankin

Held concurrently with GEOG 18.01. Somali drought and famine, Greenland wildfires, monsoonal floods and landslides in Southeast Asia, and the brutal hurricanes and post-storm neglect of Puerto Rico - climate related disasters such as these cost the U.S. alone a record of $300B in 2017. With the world warming an order of magnitude faster than any time in the last 65 million years and with more people, material, and money occupying the same space than ever before, it's unclear whether such climate impacts are part of a geophysical trend or reflective of our social, political, and economic choices.

**EEES 141 - Economics of Ecological Resources**

Instructor: Howarth

This course develops theories and methods that are used in primary research on the economics of ecological resources. Topics include welfare economics, nonmarket valuation, common pool resources, bioeconomic modeling, forest resource management, decision-making under uncertainty and the role of ecosystem services in supporting the macroeconomy. Students develop skill in applying optimization techniques and dynamic simulation in the analysis and governance of ecological-economic systems. This course is aimed at students who have some prior knowledge of ecological economics plus grounding in first-year calculus.

**EEES 145 - Practicum in Combining Theories, Models and Data in Research**

Instructor: Ayres

In science, models are the link between theories and data. Models can be of infinitely variable form (verbal, graphical or mathematical; process-based or empirical, deterministic or stochastic, etc.) and can function in myriad different ways (describing a theory, deriving predictions to test a theory, predicting the empirical outcomes of alternative management scenarios, etc.). Effective scientists are continually absorbing, conceiving, sorting, discarding and refining models. All scientists are modelers, but many of us mainly do it unconsciously, and almost all of us would be better scientists if we were better modelers. This course will be a workshop in combining theories, models and data in research. The course structure will include a mix of short lectures, analytical exercises, small work groups, structured discussion and unstructured time for all of us to work on an interesting modeling problem from our own work. The course will culminate in the last meeting with presentations by each participant of their modeling projects. Offered in alternate years.

Cross-Listed as: BIOL-145
EEES 147 - Genomics: From Data to Analysis
Instructor: Zhaxybayeva
Held concurrently with BIOL 47. Massive amounts of genomic data pervade 21st century life science. Physicians now assess the risk and susceptibility of their patients to disease by sequencing the patient’s genome. Scientists design possible vaccines and treatments based on the genomic sequences of viruses and bacterial pathogens. Better-yielding crop plants are assessed by sequencing their transcriptomes. Moreover, we can more fully explore the roots of humanity by comparing our genomes to those of our close ancestors (e.g., Neanderthals, Denisovans). In this course, students will address real-world problems using the tools of modern genomic analyses. Each week students will address a problem using different types of genomic data, and use the latest analytical technologies to develop answers. Topics will include pairwise genome comparisons, evolutionary patterns, gene expression profiles, genome-wide associations for disease discovery, non-coding RNAs, natural selection at the molecular level, and metagenomic analyses.
Cross-Listed as: BIOL-152

EEES 148 - Arctic Environmental Change
Instructor: Culler
Held concurrently with ENVS 80.01. This course examines the connections between science and the human dimensions of rapid environmental change. First, ecosystem responses to emerging environmental issues (climate change, resource development) will be introduced from a scientific perspective. In the second part, we will explore how this science is framed in policy documents such as reports from the Intergovernmental Panel on Climate Change. The course will emphasize the importance of science communication in the policy process and will culminate with a collaborative case study that integrates climate change, resource development, and social issues.
Cross-Listed as: BIOL-148

EEES 152 - Student-Organized Seminar in Ecology and Evolution
Instructor: The staff
Graduate students who have advanced to candidacy may organize a seminar course on topics of their choosing. The course will be conceived, organized, and led by students with faculty involvement. Course proposals should contain: (1) title; (2) one-page exposition on the intellectual motivation for the course; (3) syllabus, including reading list and example problem sets, if appropriate; (4) name(s) of faculty advisor(s); (5) names of students and postdoctoral researchers that will participate in the seminar; and if appropriate, (6) a listing of potential products of the seminar, such as joint papers or proposals. Proposals will be evaluated by a faculty committee. Students are encouraged to collaborate with faculty advisors during proposal development.
Cross-Listed as: BIOL-152

EEES 153 - Aquatic Ecology
Instructor: The staff
Held concurrently with BIOL 53. The study of interactions between biological communities and their freshwater environment. Lecture and readings provide the scientific background necessary for understanding the physical, chemical and biological dynamics of freshwater habitats. Emphasis is placed on application of fundamental concepts to problems in conservation and management of aquatic ecosystems. The laboratory and fieldwork, including a weekend field trip during the first week of classes, will acquaint students with modern methodological approaches for studying aquatic ecosystems.
Cross-Listed as: BIOL-153

EEES 156 - Environmental Economics & Governance
Instructor: Webster
Held concurrently with ENVS 56. This course explores how concepts from economics and political science can be integrated and applied to issues of environmental governance. Classroom activities and assignments are designed to foster critical thinking about 1) the tools used in environmental economics and 2) the interplay between economic and political forces in human-environment systems. Students will learn how concepts such as cost-benefit analysis, incentive-based regulation, and interest-based politics are applied to problems ranging from pollution reduction to international environmental negotiations.

EEES 160 - Earth System Modeling
Instructor: Mankin
Held concurrently with GEOG 60. What will Earth look like in 2100? Scientists rely on the most sophisticated computer programs on Earth - climate models - to answer such questions. This applications-based class introduces the concepts (theory and practicalities) related to the science and art of numerical modeling generally, and process-based modeling for climate science specifically. Models are prevalent and powerful tools that can reveal fundamental insights about complex phenomena, but are not themselves reality. We will build and work with a range of models, from simple, zero-dimensional radiation balance models to compiling and running fully-coupled global-scale Earth System Models experiments on a supercomputer. Together in this hands-on class, we will learn the potentials and pitfalls of modeling more generally, while positioning a rational
evaluation of models and their place in society, especially around predictions of climate change.

EEES 165 - Global Environmental Politics
Instructor: Webster
Held concurrently with ENVS 65. This course will examine the global politics associated with environmental issues such as desertification, wildlife management, biodiversity conservation, oceans and fisheries, shared water resources, and climate change. Specifically, we will engage these topics using theories from international relations and comparative politics. A major goal of the course is to give students a firm understanding of the linkages between the policy preferences of governments and the outcomes of international negotiations regarding the global environment.

EEES 167 - Political Ecology
Instructor: Sneddon
Held concurrently with ENVS 67/GEOG 47.01. Political ecology is an approach to human-environment relations that links a broad understanding of biophysical systems (e.g., tropical forests, coastal ecosystems, river basins) to knowledge regarding the political and economic forces that drive ecological change. Drawing on examples from North America, Southeast Asia, Africa and other regions, this course employs a political ecology framework to examine contemporary debates over urbanization, water resources, the role of science in environmental conflicts and the cultural landscape.

EEES 169 - Supervised Teaching in EEES
Instructor: The staff
This course is required for all graduate students, based on the assertion that an essential element of graduate education is the experience gained in teaching other students. Such teaching experience is of particular relevance to students interested in academic careers. Students will conduct laboratory or discussion sessions in undergraduate courses under the supervision of the course faculty. The faculty and student teaching assistant work very closely to develop lab and discussion assignments. In some cases, the students are encouraged to present lectures for which they receive detailed feedback on their teaching style. In all cases students will receive instruction on effective teaching techniques through weekly preparation sessions. Topics for discussion include how to teach the material, how to run a discussion, how to evaluate student responses, and grading. Performance will be monitored throughout the term and appropriate evaluation, coupled with detailed suggestions for improvement, will be provided. This course is not open to undergraduates.
Cross-Listed as: BIOL-169

EEES 171 - River Processes and Watershed Science
Instructor: Magilligan
Held concurrently with EARS 71/GEOG 62.01. Role of surface water and fluvial processes on landscape formation; magnitude and frequency relationships of flood flows; soil erosion, sediment transport, and fluvial landforms. This course examines the links between watershed scale processes such as weathering, denudation, and mass wasting on the supply of water and sediment to stream channels on both contemporary and geologic timescales and further evaluates the role of climate change on the magnitude and direction of shifts in watershed and fluvial processes.

EEES 181 - Coupled Human-Natural Systems: Theory and Practice
Instructor: Ong
Held concurrently with ENVS 80.10. This course is an introduction to coupled human-natural systems, exploring how social, ecological, and environmental systems are linked and feedback to influence each other. Increasing human demand for Earth's limited resources has resulted in a plethora of hazards to the natural world; problems which are unlikely to be solved without understanding the links between human and natural systems. Here, we will explore some of the complex, sometimes non-intuitive behavior that results from coupling these systems. The primary objective is to introduce students to the tools and techniques of complex systems science used for researching coupled human-natural systems. In a series of lectures and computer laboratory modules, students will be introduced to significant areas of research in the field and learn how to analyze and leverage basic continuous and discrete time differential models and spatiotemporal statistics to address socio-ecological problems. The course will provide basic coding instruction, as necessary. No prior experience in coding is needed. In a final project, students will work in groups to develop or adapt an existing socio-ecological model, gather and analyze existing data, as well as interpret the implications of their results for human management.

EEES 189 - Forest Biogeochemistry
Instructor: Friedland
Held concurrently with ENVS 89. This seminar will examine elemental cycling and related biogeochemical processes in terrestrial ecosystems, with a strong focus on forests of the temperate zone. Emphasis will be placed on understanding the cycling of the major elements carbon and nitrogen, and the trace elements mercury and lead. The interaction of disturbed and undisturbed forests with the changing global environment will be a major topic of study throughout the course.
EEES 197 - Graduate Research I: Level I  
Instructor: The staff  
An original individual experimental or theoretical investigation beyond the undergraduate level in one of the fields of ecology, evolution, ecosystems or environmental social science. This course is open only to graduate students, prior to passing their qualifying examination; it may be elected for credit more than once. This course carries one course credit and should be elected by students conducting research and also electing two or more other graduate or undergraduate courses.  
Cross-Listed as: BIOL-197

EEES 198 - Graduate Research I: Level II  
Instructor: The staff  
An original individual experimental or theoretical investigation beyond the undergraduate level in one of the fields of ecology, evolution, ecosystems or environmental social science. This course is open only to graduate students, prior to passing their qualifying examination; it may be elected for credit more than once. This course carries two course credits and should be elected by students electing only departmental colloquia in addition to research.  
Cross-Listed as: BIOL-198

EEES 199 - Graduate Research I: Level III  
Instructor: The staff  
An original individual experimental or theoretical investigation beyond the undergraduate level in one of the fields of ecology, evolution, ecosystems or environmental social science. This course is open only to graduate students, prior to passing their qualifying examination; it may be elected for credit more than once. This course carries three course credits and should be elected by students conducting research exclusively in any one term.  
Cross-Listed as: BIOL-199

EEES 200 - Foundational Papers in Ecology Research Colloquium  
Instructor: Cottingham  
The goal of this discussion-based journal club is to bring together students, postdocs, and faculty from the EEES and allied graduate programs to discuss foundational papers in ecology and ecosystem science, and to make connections between this classic work and the current frontiers in these fields. Each enrolled graduate student participant will be required to lead a weekly discussion of 1-2 papers once during the term. Normally meets weekly. This course is not open to undergraduates.  
Cross-Listed as: BIOL-200

EEES 265 - Microbial Ecology and Environmental Biology Research Colloquium  
Instructor: Zhaxybayeva, Nadell  
The goal of this discussion-based journal club is to bring together students, postdocs, and faculty from the EEES, MCB, and EARS graduate programs to discuss recent papers on the ecology and environmental biology of microbes. Each enrolled graduate student participant will be required to lead a weekly discussion of 1-2 papers once during the term. Normally meets weekly. This course is not open to undergraduates.  
Cross-Listed as: BIOL-265

EEES 266 - Ecology and Evolution Research Colloquium  
Instructor: Pries, Cottingham, Laidre  
This course is required of all students during each term of residence, except summer. An essential element of scientific training is in the critical analysis and communication of experimental research in an oral format. Evaluation will be based on quality of the work described, quality of critical analysis, and on presentation style, including effective use of audiovisual materials. All students will make oral presentations that describe work from their own research. Normally meets weekly. This course is not open to undergraduates.  
Cross-Listed as: BIOL-266

EEES 272 - Exploring the Two-fold Cost of Sex and the Maintenance of Meiosis  
Instructor: R. Calsbeek  
Asexual reproduction dominates the Earth's biology. Curiously, the vast majority of eukaryotes reproduce sexually even though the evolution of meiosis involves substantial costs. How meiosis evolved, and why it persists in sexual reproduction despite its many associated costs, are major unanswered questions in evolutionary biology. This course will survey the literature on the evolutionary origins of meiosis and the maintenance of sexual reproduction. We will explore the diversity of sexual and asexual modes of reproduction and related evolutionary phenomena with a focus on critically evaluating current research and theory in this area.  
Cross-Listed as: BIOL-272

EEES 297 - Graduate Research II: Level I  
Instructor: The staff  
An original individual experimental or theoretical investigation beyond the undergraduate level in one of the fields of ecology, evolution, ecosystems or environmental social science. This course is open only to graduate students, subsequent to passing their qualifying examination; it may be elected for credit more than once.
This course carries one course credit and should be elected by students conducting research and also electing two or more other graduate or undergraduate courses.

Cross-Listed as: BIOL-297

EEES 298 - Graduate Research II: Level II

Instructor: The staff

An original individual experimental or theoretical investigation beyond the undergraduate level in one of the fields of ecology, evolution, ecosystems or environmental social science. This course is open only to graduate students, subsequent to passing their qualifying examination; it may be elected for credit more than once. This course carries two course credits and should be elected by students electing only departmental colloquia in addition to research.

Cross-Listed as: BIOL-298

EEES 299 - Graduate Research II: Level III

Instructor: The staff

An original individual experimental or theoretical investigation beyond the undergraduate level in one of the fields of ecology, evolution, ecosystems or environmental social science. This course is open only to graduate students, subsequent to passing their qualifying examination; it may be elected for credit more than once. This course carries three course credits and should be elected by students conducting research exclusively in any one term.

Cross-Listed as: BIOL-299

Engineering Sciences - Graduate

Chair: Douglas W. Van Citters


The undergraduate Engineering Sciences major leads to an A.B. degree. It provides engineering students with a common core of Science and Engineering Sciences courses. Interest in the various branches of engineering is accommodated through electives and usually through additional study leading to a Bachelor of Engineering or higher degree. For those students considering careers in such diverse fields as medicine, management, or law, the Engineering Sciences major enables them to better understand our increasingly technological society.

Students interested in a career in Engineering should plan on completing the Bachelor of Engineering or Master’s program. The Bachelor of Engineering degree program is accredited by the Engineering Accreditation Commission of ABET, 111 Market Place, Suite 1050, Baltimore, MD 21202-4012 - telephone (410) 347-7700; it is equivalent in technical content to the Bachelor of Science degree in Engineering offered at many other universities but is broader in scope. It requires 10 courses in Natural Science, Mathematics, and Engineering beyond the requirements of the major in Engineering Sciences, and typically requires up to three terms in residence beyond the 12 terms required for the A.B. degree. Students who enter Dartmouth with advanced standing may be able to complete the B.E. at the same time as the A.B. (i.e., in four years).

The graduate degrees are differentiated according to function. For those interested in design, professional practice, and engineering management, the M.E.M. degree is offered; for those interested primarily in research, the M.S. and Ph.D. degrees. Additionally a joint M.D./Ph.D. program is offered in conjunction with the Dartmouth Medical School and a joint M.E.M./M.B.A. program with the Tuck School of Business. The Thayer School Guide to Programs and Courses should be consulted for detailed information on all graduate programs (B.E. and above).
Requirements for the Master’s Degree (M.S.)

The Faculty of the Thayer School believes that the education of all graduate students should include reasonable breadth in the areas of applied mathematics and engineering.

In addition to the basic requirements for the Master’s degree, which include three terms in residence at Dartmouth, the Department requires:

For the M.S. with concentration in Engineering Sciences:

1. All students entering the program are required to take six graduate-level courses, and these may be simultaneously counted for the B.E. (Courses taken previously, e.g., as an undergraduate, can be used in satisfaction of this requirement but do not reduce the number of courses required, unless admission is with advanced standing.)

2. Satisfaction of the following distribution requirements:
   a. One Applied Mathematics Course
   b. Minimum of two courses in engineering breadth
   c. Minimum of three courses in engineering depth.

3. A thesis approved by the student’s graduate committee and the faculty, demonstrating the ability to do research and contribute to the field.


M.S. thesis defense, the B.E./M.S. candidate submits a Bachelor of Engineering program plan approved by both their advisor and the Director of the Bachelor of Engineering program to the Registrar.

M.S.-M.D. Program

The M.S./M.D. program is offered by the Thayer School of Engineering and Dartmouth Medical School and is designed for individuals intending to pursue clinical practice but with an interest in developing research skills in a related engineering area. It is also well suited for individuals interested in developing better understanding of imaging and other technologies they will employ as practicing physicians. The program provides M.D. students with a funded research experience in engineering that is expected to lead to research publication as well as provide practical engineering design and analysis experience.

Individuals holding an undergraduate degree in engineering and meeting the entrance requirements of each school are eligible to apply. Application must be made to each school separately.

Candidates are M.D. students who apply to the Thayer School for admission in their first, second or third year of medical school. Studies for the Thayer M.S. will be carried out in the fourth and part of the fifth year.

For specific program requirements, please consult the Thayer Guide to Programs and Courses or the Thayer website at: http://engineering.dartmouth.edu/.

Requirements for the Doctor’s Degree (Ph.D.)

Students with a master’s degree (or outstanding performance on a bachelor’s degree) in engineering or the physical sciences are eligible for admission to the Doctor of Philosophy program. Consult the 2019-2020 Thayer School Guide to Programs and Courses for details. The requirements for the Ph.D. are as follows:

1. Students in the Ph.D. program are expected to spend at least nine terms in residence following the Bachelor’s degree, three of which will take place after successfully completing the Oral Qualifying Examination. In addition, students are required to have:

   a. four terms of participation in ENGG 195, Seminar on Science, Technology and Society (the "Jones Seminar"). This one-hour seminar is a weekly, school-wide meeting of the Thayer community of scholars - faculty, researchers, and graduate students. In addition, students will be required to sign up for and participate in 2-3 lunches with Jones Seminar speakers each term, and

   b. annual participation in the Research-in-Progress Workshop, for which each Candidate in residence presents his or her individual research progress.
2. Technical proficiency in principles and methods of engineering, applied science, and applied mathematics underlying the anticipated thesis research, as evidenced by performance on an oral qualifying examination. The examination covers at least three fundamental areas selected by the Candidate in consultation with his or her special advisory committee and approved by the Graduate Program Committee. (See footnote below.)

3. Technical breadth in engineering or applied science, as demonstrated by either an approved course of study in one or more areas outside or secondary to the Candidate’s main area of specialization, defense of a research proposal or completion of a project in an area outside the Candidate’s main area of specialization. (See footnote below.)

4. Specialization with mastery at an advanced level of the body of knowledge pertaining to the Candidate’s chosen area of research, as demonstrated by the successful oral defense of a thesis proposal, and by completion of a program of study approved by the Graduate Program Committee. The extent and content of this program are designed to meet the individual interests and needs of the Candidate. (See footnote #12 below.)

5. Professional competence in resource development for a research project or technology startup enterprise, as demonstrated by completion of a competitive research proposal or business plan for a technology startup company. The proposal or business plan may be developed either independently or as part of the Competitive Proposal Workshop.

a. Original research making a significant contribution to knowledge, combined with demonstration of professional expertise in the chosen area of study, as demonstrated by at least the following: The oral examination, procedures for demonstrating technical breadth, thesis proposal, and workshop to facilitate development of a competitive research proposal or business plan are described in more detail in the Thayer School Guide to Programs and Courses.

b. Presentation of elements of the doctoral research at a professional meeting with the Candidate as first author,

c. A dissertation of professional quality certified by the Candidate’s thesis committee,

d. Acceptance of at least one manuscript on the doctoral research for publication with the Candidate as first author, and

e. Public oral presentation and defense of the dissertation.

The oral examination, procedures for demonstrating technical breadth, thesis proposal, and workshop to facilitate development of a competitive research proposal or business plan are described in more detail in the Thayer School Guide to Programs and Courses.

**Ph.D. Program in Innovation**

Thayer School offers a Ph.D. Program in Innovation, which supplements the student’s engineering research with specific coursework and practice in applying entrepreneurial skills to move research discoveries to market. Students in the Program in Innovation meet all requirements for admission to candidacy and full admission to the Ph.D. program, including passing an oral qualifying examination and defending a Ph.D. thesis proposal. Specific requirements for the candidates in the Program in Innovation can be found in the Thayer School Guide to Programs and Courses.

**M.D.-Ph.D. Program in Biomedical Engineering**

Thayer School of Engineering and the Dartmouth Medical School offer an M.D./Ph.D. program in biomedical engineering. Students must apply to the Medical School, indicating their interest in the joint program. The requirements for the Ph.D. portion of the program are modified to permit a more efficient completion of the dual degree program.

A student may begin by first pursuing two years of study in basic science at the Medical School. Enrollment in Thayer School for two years follows, during which the student would take courses, qualify for Ph.D. candidacy, pass the oral examination, and initiate dissertation research. Alternately, some students prefer to satisfy basic Ph.D. requirements before starting medical school. The research would then be continued in concert with years 3 and 4 of the M.D. program (the clinical years), especially during year 4 where dissertation research would be counted as elective courses toward the M.D. Both degrees are awarded simultaneously after typically 6 to 6 1/2 years of study.

Specific requirements of this program are:

- **M.D. component:** Completion of the 4-year M.D. curriculum. Elective time of year 4 can be devoted to Ph.D. dissertation research. (Consult the Dartmouth Medical School Catalog for details.)

- **Ph.D. component:**
  1. Students in the M.D./Ph.D. program are expected to spend at least six terms in residence, one of which will take place after successfully completing the Oral Qualifying Examination. In addition, students are required to have:

     a. Four terms of participation in ENGG 195, Seminar on Science, Technology and Society (the "Jones Seminar"). This one-hour seminar is a weekly, school-wide meeting of the Thayer community of scholars - faculty, researchers, and graduate
students. In addition, students will be required to sign up for and participate in 2-3 lunches with Jones Seminar speakers each term, and

b. annual participation in the Research-in-Progress Workshop, for which each Candidate in residence presents his or her individual research progress.

2. Technical proficiency in principles and methods of engineering, applied science, and applied mathematics underlying the anticipated thesis research, as evidenced by performance on an oral qualifying examination. The examination covers at least three fundamental areas selected by the Candidate in consultation with his or her special advisory committee and approved by the graduate program committee.

3. Technical breadth in engineering or applied science, as demonstrated by either an approved course of study in one or more areas outside or secondary to the Candidate’s main area of specialization or defense of a research proposal or completion of a project in an area outside the Candidate’s main area of specialization. 

4. Specialization with mastery at an advanced level of the body of knowledge pertaining to the Candidate’s chosen area of research, as demonstrated by the successful oral defense of a thesis proposal, and by completion of a program of study approved by the M.D./Ph.D. Biomedical Engineering Committee. The extent and content of this program are designed to meet the individual interests and needs of the Candidate. (See footnote below.)

5. Original research making a significant contribution to knowledge, combined with demonstration of professional expertise in the chosen area of study, as demonstrated by at least the following:
   a. presentation of elements of the doctoral research at a professional meeting with the Candidate as first author,
   b. a dissertation of professional quality certified by the Candidate’s thesis committee.
   c. acceptance of at least one manuscript on the doctoral research for publication with the Candidate as first author, and
   d. public oral presentation and defense of the dissertation.

The oral examination, procedures for demonstrating technical breadth, thesis proposal, and workshop to facilitate development of a competitive research proposal or business plan are described in more detail in the Thayer School Guide to Programs and Courses.

Ph.D. in Computer Science

A Ph.D. in computer science is offered by the graduate program in Computer Science, including some Thayer School faculty. See Computer Science for details.

Advanced Graduate Courses

Courses at the 300 level are ‘advanced graduate’ courses, distinguished from 100 and 200-level courses by the standard of accomplishment that is required. These advanced graduate courses comprise an in-depth study of an area of engineering or engineering sciences up to the point where the student is able effectively to read and evaluate current literature in the field and to the point where the student should be ready to undertake original work in the field.

Most 300-level courses are tutorials. The small size of Thayer School allows students to work closely with professors—a significant feature in courses that are expected to provide in-depth study.

These courses reflect areas of significant faculty professional involvement or areas in which they are engaged in advanced research or development.

Please consult the Thayer School Guide to Programs and Courses for the 300 level courses, Tutorial courses, Engineering Management courses and Project, Research, Independent Study, Seminar and Workshop courses.

Engineering

$ename

ENGG 138 - Corrosion and Degradation of Materials
Instructor: W. Li
Prerequisite: ENGS 024 and CHEM 005

ENGG 148 - Structural Mechanics
Instructor: Phan
Development and application of approximate and "exact" analytical and computational methods of analysis to a variety of structural systems, including trusses, two- and three-dimensional frames, plates and/or shells. Modeling of structural systems as one and multi degree of freedom lumped systems permits analysis under a variety of dynamic loads as well as providing an introduction to vibration analysis.
Prerequisite: ENGS 33

ENGG 166 - Quantitative Human Physiology
Instructor: Pogue
Introduction to human physiology using the quantitative methods of engineering and physical science. Topical coverage includes cellular membrane ion transport,
Hodgkin-Huxley models and action potentials, musculoskeletal system, cardiovascular physiology, respiratory physiology, and nervous system physiology. Laboratory exercises and a final project delve into the measurement of human physiology, data analysis, and model testing.

Prerequisite: ENGS 22 or equivalent; BIOL 12 or BIOL 14 or ENGS 30; ENGS 23 or MATH 23 or PEMM 101

ENGG 210 - Spectral Analysis
Instructor: Hansen
An advanced treatment of digital signal processing for the analysis of time series. A study is made of parametric and nonparametric methods for spectral analysis. The course includes a review of probability theory, statistical inference, and the discrete Fourier Transform. Techniques are presented for the digital processing of random signals for the estimation of power spectra and coherency. Examples are taken from linear system theory and remote sensing using radar. Laboratory exercises will be assigned requiring the use of the computer.

Prerequisite: ENGS 110

ENGG 212 - Communications Theory
Prerequisite: ENGS 110

ENGG 230 - Fatigue and Fracture
Instructor: Frost
Prerequisite: Engineering 130 or permission of the instructor.

ENGG 240 - Kinematics and Dynamics of Machinery
Prerequisite: Engineering 140.

ENGG 261 - Biofuels and Bioenergy
Instructor: Lynd
Bioenergy technologies will be surveyed, including feedstocks, bioelectricity production, biofuel production, and conversion technologies. Fermentation-derived biofuels will then be considered in more detail including first, and second, generation biofuels as well as the fundamentals of microbial cellulose utilization. Consolidated bioprocessing will be examined with respect to feedstock solubilization, metabolic engineering, technoeconomic analysis, and research frontiers. Sustainability tools will be introduced, and assessments discussed. The course will feature readings from the literature, guest lectures by field leaders, and student projects.

Prerequisite: ENGS 157 and ENGS 161 and permission

Engineering Sciences-Graduate

ENGS 159 - Molecular Sensors & Nanodevices in Biomedical Engineering
Instructor: Zhang
Introduction to fundamentals and major types of molecular sensor systems, scaling laws of device miniaturization, and detection mechanisms, including molecular capture mechanisms; electrical, optical, and mechanical transducers; micro-array analysis of biomolecules; semiconductor and metal nanosensors; microfluidic systems; and microelectromechanical systems (MEMS, BioMEMS) design, fabrication and applications for bioengineering.

Three lab sessions are designed to gain hands-on experience on microfluidic chip and soft lithography, gold nanorods-based biomolecular sensors, micro-reactors using colloidal chemistry in engineering of nanoparticles for biomedical applications in sensing and imaging.

Prerequisite: ENGS 22, CHEM 6, or equivalent

ENGS ENGS 174 - Energy Conversion
Instructor: Laser
This course will address the science and technology of converting key primary energy sources—fossil fuels, biomass, solar radiation, wind, and nuclear fission and fusion—into fuels, electricity, and usable heat. Each of these topics will be analyzed in a common framework including underlying fundamentals, constraints on cost and performance, opportunities and obstacles for improvement, and potential scale.

Prerequisite: ENGS 22 and at least two of the following: ENGS 25, ENGS 32, ENGS 34, ENGS 36, ENGS 44, ENGS 52, ENGS 76, ENGS 104, ENGS 125, ENGS 150, ENGS 155, ENGS 156, and ENGM 184, or permission. ENGS 25 is strongly recommended.

ENGS 100 - Methods in Applied Mathematics I
Instructor: Meyer
Concepts and methods used in the treatment of linear equations with emphasis on matrix operations, differential equations, and eigenvalue problems will be developed following a brief review of analytic function theory. Topics include the Fourier integral, finite and infinite dimensional vector spaces, boundary value problems, eigenfunction expansions, Green’s functions, transform techniques for partial differential equations, and series solution of ordinary differential equations. Properties and uses of orthogonal polynomials and special functions such as the hypergeometric, Bessel, Legendre, and gamma functions are included. Applications in engineering and physics are emphasized.
Prerequisite: ENGS 092 or MATH 033 or MATH 043, with permission of instructor, or the equivalent

**ENG 103 - Operations Research**

Instructor: Vaze

This course provides an overview of a broad range of deterministic and probabilistic operations research models with a focus on engineering applications. Emphasis is on developing strong formulations, understanding key solution concepts, developing efficient algorithms, and grasping the advantages and limitations of each approach. After a brief overview of linear and discrete optimization models, the course covers four main types of techniques: network models, queuing theory, discrete events simulation and game theoretic analysis. Various network models and the corresponding solution algorithms are discussed. Key results and applications of queuing models are presented. Uncertainty associated with real-world modeling is captured through simulation techniques with specific emphasis on discrete events simulation. Equilibrium modeling concepts for strategic form games and extensive form games are introduced as extensions of the core optimization concepts. Application examples are drawn from aerospace, biomedical, civil, computer, electrical, industrial, mechanical, and systems engineering.

Prerequisite: ENGS 93 or equivalent

**ENG 104 - Optimization Methods for Engineering Applications**

An introduction to various methods of optimization and their uses in modern engineering. Students will learn to formulate and analyze optimization problems and apply optimization techniques in addition to learning the basic mathematical principles on which these techniques are based. Topic coverage includes linear programming, nonlinear programming, dynamic programming, combinatorial optimization and Monte Carlo methods.

Prerequisite: MATH 22 and ENGS 27 or equivalents, or permission of instructor

**ENG 105 - Computational Methods for Partial Differential Equations**

Instructor: Paulsen

This course concentrates on the numerical solution of partial differential equations commonly encountered in Engineering Sciences. Finite difference and finite element methods are used to solve problems in heat flow, wave propagation, vibrations, fluid mechanics, hydrology, and solid mechanics. The course materials emphasize the systematic generation of numerical methods for elliptic, parabolic, and hyperbolic problems, and the analysis of their stability, accuracy, and convergence properties. Weekly computer exercises will be required to illustrate the concepts discussed in class.

Prerequisite: MATH 23 and ENGS 91 (COSC 71), or equivalents

**ENG 106 - Numerical Linear Algebra**

Prerequisite: COSC 71 or ENGS 91. Students are to be familiar with approximation theory, error analysis, direct and iterative technique for solving linear systems, and discretization of continuous problems to the level normally encountered in an undergraduate course in numerical analysis

Cross-Listed as: COSC 271

**ENG 108 - Applied Machine Learning**

Instructor: Cybenko

This course will introduce students to modern machine learning techniques as they apply to engineering and applied scientific and technical problems. Techniques such as recurrent neural networks, deep learning, reinforcement learning and online learning will be specifically covered. Theoretical underpinnings such as VC-Dimension, PAC Learning and universal approximation will be covered together with applications to audio classification, image and video analysis, control, signal processing, computer security and complex systems modeling. Students will gain experience with state-of-the-art software systems for machine learning through both assignments and projects. Because of the large overlap in material covered, no student will receive credit for both ENGS 108 and COSC 74/174.

Prerequisite: ENGS 20 or equivalent, MATH 22 or equivalent, ENGS 27 or ENGS 93 or equivalent.

**ENG 110 - Signal Processing**

Instructor: Hansen

Continuous and discrete-time signals and systems. The Discrete Fourier Transform and the Fast Fourier Transform. Linear filtering of signals and noise. Characterization of random signals using correlation functions and power spectral densities. Problems will be assigned that require the use of the computer.

Prerequisite: ENGS 32 and ENGS 92 or equivalents

**ENG 111 - Digital Image Processing**

Instructor: Hartov

Digital image processing has come into widespread use in many fields including Medicine, industrial process monitoring, military and security applications, as well as satellite observation of the earth. This course will cover many aspects of image processing which students will find valuable in their research or personal interest. Topics will include: image sources, computer representation of images and formats, operations on images and image analysis. In this course we will stretch the conventional notion of images from 2D pixel arrays to include 3D data sets and we will...
explore how one can process such stacks of voxels to produce useful information. This course will also touch on some advanced topics in image processing which may vary based on students interests. This course will require the completion of a project selected by the student.

Prerequisite: ENGS 92, ENGS 93 or equivalents

**ENGS 112 - Modern Information Technologies**  
Instructor: Santos

This course covers current and emerging information technologies, focusing on their engineering design, performance and application. General topics such as distributed component and object architectures, wireless networking, web computing and information security will be covered. Specific subjects will include Java, CORBA, JINI public key cryptography, web search engine theory and technology, and communications techniques relevant to wireless networking such as Code Division Multiple Access protocols and cellular technology.

Prerequisite: ENGS 20, ENGS 93 and ENGS 27 or COSC 60. ENGS 93 can be taken concurrently

**ENGS 114 - Networked Multi-Agent Systems**

Design and analysis of networked systems comprised of interacting dynamic agents will be considered. Inspired by the cohesive behavior of flocks of birds, we design self-organizing engineering systems that mimic a sense of coordinated motion and the capability of collaborative information processing similar to flocks of birds. Examples include multi-robot networks, social networks, sensor networks, and swarms. The course combines concepts in control theory, graph theory, and complex systems in a unified framework.

Prerequisite: ENGS 26, MATH 23, or equivalents plus familiarity with MATLAB

**ENGS 115 - Parallel Computing**

Parallel computation, especially as applied to large scale problems. The three main topics are: parallel architectures, parallel programming techniques, and case studies from specific scientific fields. A major component of the course is laboratory experience using at least two different types of parallel machines. Case studies will come from such applications areas as seismic processing, fluid mechanics, and molecular dynamics.

Prerequisite: ENGS 91 (or COSC 71 or equivalent)

**ENGS 116 - Computer Engineering: Computer Architecture**

This course provides an introduction to the field of computer architecture. The history of the area will be examined, from the first stored program computer to current research issues. Topics covered will include successful and unsuccessful machine designs, cache memory, virtual memory, pipelining, instruction set design, RISC/CISC issues, and hard-ware/software tradeoffs. Readings will be from the text and an extensive list of papers. Assignments will include homework and a substantial project, intended to acquaint students with open questions in computer architecture.

Prerequisite: ENGS 31 and COSC 51 (formerly 37); COSC 57 (formerly 48), COSC 58, or equivalent recommended.

Cross-Listed as: COSC 251

**ENGS 120 - Electromagnetic Waves: Analytical and Modeling Approaches**

Instructor: Luke

Conceptual development, analysis, and modeling in electromagnetic wave propagation, including boundary conditions, material properties, polarization, radiation, scattering, and phased arrays; emerging research and applications in the areas of electromagnetics and materials.

Prerequisite: ENGS 64 or equivalent

**ENGS 122 - Semiconductor Theory and Devices**

Instructor: Scheideler

Elementary physics (classical and quantum) is applied to create models for the behavior of semiconductor devices. The distribution of electron energy, the gap between energy bands, and the mechanisms of current flow are derived. The pn junction and its variations, bipolar junction transistor, junction field effect transistor, and MOSFET devices are studied. Other devices studied are chosen from among opto-electronic and heterojunction devices.

Prerequisite: ENGS 024, ENGS 032 and ENGS 060 or equivalents

Cross-Listed as: PHYS 126

**ENGS 123 - Optics**

Instructor: Luke


Prerequisite: ENGS 23 or PHYS 41, and ENGS 92 or equivalent

Cross-Listed as: PHYS 123

**ENGS 124 - Optical Devices and Systems**

Light has now taken its place beside electricity as a medium for information technology and for engineering and scientific instrumentation. Applications for light include telecommunications and computers, as well as instrumentation for materials science, biomedical,
mechanical and chemical engineering. The principles and characteristics of lasers, detectors, lenses, fibers and modulators will be presented, and their application to specific optical systems introduced. The course will be taught in an interdisciplinary way, with applications chosen from each field of engineering. Students will choose design projects in their field of interest.

Prerequisite: ENGS 23
Cross-Listed as: PHYS 124

**ENGS 125 - Power Electronics and Electromechanical Energy Conversion**

Instructor: Stauth

Controlled use of energy is essential in modern society. As advances in power electronics extend the capability for precise and efficient control of electrical energy to more applications, economic and environmental considerations provide compelling reasons to do so. In this class, the principles of power processing using semiconductor switching are introduced through study of pulse-width-modulated dc-dc converters. High-frequency techniques such as soft-switching are analyzed. Magnetic circuit modeling serves as the basis for trans-former, inductor, and electric machine design. Electromechanical energy conversion is studied in relation to electrostatic and electromagnetic motor and actuator design. Applications to energy efficiency, renewable energy sources, robotics, and micro-electromechanical systems are discussed. Laboratory exercises lead to a project involving switching converters and/or electric machines.

Prerequisite: ENGS 23 and ENGS 32

**ENGS 126 - Analog Integrated Circuit Design**

Instructor: Odame

Design methodologies of very large scale integration (VLSI) analog circuits as practiced in industry will be discussed. Topics considered will include such practical design considerations as size and cost; technology processes; modeling of CMOS, bipolar, and diode devices; advanced circuit simulation techniques; basic building blocks; amplifiers; and analog systems. A design project is also required in which the student will design, analyze, and optimize a small analog or mixed analog/digital integrated circuit. This design and some homework assignments will require the student to perform analog and digital circuit simulations to verify circuit operation and performance. Lectures will be supplemented by guest lecturers from industry.

Prerequisite: ENGS 32 and ENGS 61, or permission

Field-programmable gate arrays (FPGAs) have become a major fabric for implementing digital systems, rivaling application-specific integrated circuits (ASICs) and microprocessors/microcontrollers, particularly in applications requiring special architectures or high data throughput, such as digital signal processing. Hardware description languages (HDLs) have become the dominant method for digital system design. This course will advance the student's understanding of FPGA design flow and ability to perform HDL-based design and implementation on FPGAs. Topics include: FPGA architectures, digital arithmetic, pipelining and parallelism, efficient design using register transfer level coding and IP cores, computer-aided tools for simulation, synthesis, and debugging. The course is graded on a series of laboratory exercises and a final project. Enrollment is limited to 20 students.

Prerequisite: ENGS 31 and ENGS 62 or COSC 51

**ENGS 129 - Biomedical Circuits and Systems**

Instructor: Odame

This course covers the fundamental principles of designing electronic instrumentation and measurement systems, including (i) operation and use of a range of transducers (ii) design of sensor interface circuits (iii) operation and use of different analog-to-digital converters (iv) signal processing algorithms and (v) event-driven microcontroller programming. While these engineering principles will be illustrated in the context of biomedical applications, they are equally relevant to other instrumentation and measurement scenarios. In the first half of the course, there are weekly labs during which students build various biomedical devices, such as an ECG-based heart rate monitor, an electronic stethoscope and an automatic blood pressure monitor. Each of these labs underscores a specific principle of instrumentation and measurement system design. The second half of the course is focused on a group project to build a single, moderately-complex piece of instrumentation, such as a blood oxygenation monitor.

Prerequisite: ENGS 31, ENGS 32 and either ENGS 61 or ENGS 62.

**ENGS 130 - Mechanical Behavior of Materials**

Instructor: Schulson

A study of the mechanical properties of engineering materials and the influence of these properties on the design process. Topics include tensorial description of stress and strain, elasticity, plastic yielding under multiaxial loading, flow rules for large plastic strains, microscopic basis for plasticity, viscoelastic deformation of polymers, creep, fatigue, and fracture.

Prerequisite: ENGS 24 and ENGS 33, or equivalent

**ENGS 131 - Science of Solid State Materials**

Instructor: Liu
This course provides a background in solid state physics and gives students information about modern directions in research and application of solid state science. The course serves as a foundation for more advanced and specialized courses in the engineering of solid state devices and the properties of materials. The main subjects considered are crystal structure, elastic waves-phonons, Fermi-Dirac and Bose-Einstein statistics, lattice heat capacity and thermal conductivity, electrons in crystals, electron gas heat capacity and thermal conductivity, metals, semiconductors, superconductors, dielectric and magnetic properties, and optical properties. Amorphous solids, recombination, photoconductivity, photoluminescence, injection currents, semiconductor lasers, high temperature superconductors, and elements of semiconductor and superconductor microelectronics are considered as examples.

Prerequisite: ENGS 24 or PHYS 24 or CHEM 76 or equivalent

**ENGS 132 - Thermodynamics and Kinetics in Condensed Phases**

Instructor: Schulson

This course discusses the thermodynamics and kinetics of phase changes and transport in condensed matter, with the objective of understanding the microstructure of both natural and engineered materials. Topics include phase equilibria, atomic diffusion, interfacial effects, nucleation and growth, solidification of one-component and two-component systems, solubility, precipitation of gases and solids from supersaturated solutions, grain growth, and particle coarsening. Both diffusion-assisted and diffusionless or martensitic transformations are addressed. The emphasis is on fundamentals. Applications span the breadth of engineering, including topics such as polymer transformations, heat treatment of metals, processing of ceramics and semiconductors. Term paper.

Prerequisite: ENGS 24 and ENGS 25, or equivalent

**ENGS 133 - Methods of Materials Characterization**

Instructor: I. Baker

This survey course discusses both the physical principles and practical applications of the more common modern methods of materials characterization. It covers techniques of both microstructural analysis (OM, SEM, TEM, electron diffraction, XRD), and microchemical characterization (EDS, XPS, AES, SIMS, NMR, RBS and Raman spectroscopy), together with various scanning probe microscopy techniques (AFM, STM, EFM and MFM). Emphasis is placed on both the information that can be obtained together with the limitations of each technique. The course has a substantial laboratory component, including a project involving written and oral reports, and requires a term paper.

Prerequisite: ENGS 24 or permission

Cross-Listed as: PHYS 128 and CHEM 137

**ENGS 134 - Nanotechnology**

Instructor: Liu

Current papers in the field of nanotechnology will be discussed in the context of the course material. In the second half of the term, students will pick a topic of interest and have either individual or small group meetings to discuss literature and research opportunities in this area. The students will prepare a grant proposal in their area of interest. Not open to students who have taken ENGS 74.

Prerequisite: ENGS 24 or PHYS 19 or CHEM 6, or equivalent

**ENGS 135 - Thin Films and Microfabrication Technology**

Instructor: Levey

This course covers the processing aspects of semiconductor and thin film devices. Growth methods, metallization, doping, insulator deposition, patterning, and analysis are covered. There are two major projects associated with the course - an experimental investigation performed in an area related to the student's research or interests, and a written and oral report on an area of thin film technology.

Prerequisite: ENGS 24 or equivalent

**ENGG 137 - Molecular and Materials Design using Density Functional Theory**

Instructor: Hautier

Density Functional Theory (DFT) has become a very powerful tool to compute and predict the properties of molecules and materials. This class will focus on how DFT can be used to compute a large range of materials and molecules properties. The class will expose the fundamentals of DFT but also the practical aspects involved in running computations. A comprehensive number of properties will be studied: structural, mechanical, thermodynamical, optical, electrical and magnetic. The student will learn how to use a DFT code through computational problem sets. The class will as well focus on case studies from the scientific literature presented by students and discussed in class. A strong emphasis will be on the critical assessment of the results obtained by DFT and on the use of the technique to perform prediction and design.

Prerequisite: ENGS 24 or PHYS 24 or CHEM 76 or equivalent

**ENGS 142 - Intermediate Solid Mechanics**

Instructor: Y. Li
Exact and approximate solutions of the equations of elasticity are developed and applied to the study of stress and deformation in structural and mechanical elements. The topics will include energy methods, advanced problems in torsion and bending, stress concentrations, elastic waves and vibrations, and rotating bodies. Although most applications will involve elastic deformation, post-yield behavior of elastic-perfectly plastic bodies will also be studied. The course will also include numerous applications of finite element methods in solid mechanics.

Prerequisite: ENGS 71 or ENGS 76 or equivalent

ENGS 145 - Modern Control Theory
Instructor: Phan

A continuation of ENGS 026, with emphasis on digital control, state-space analysis and design, and optimal control of dynamic systems. Topics include review of classical control theory; discrete-time system theory; discrete modeling of continuous-time systems; transform methods for digital control design; the state-space approach to control system design; optimal control; effects of quantization and sampling rate on performance of digital control systems. Laboratory exercises reinforce the major concepts; the ability to program a computer in a high-level language is assumed.

Prerequisite: ENGS 26

ENGS 146 - Computer-Aided Mechanical Engineering Design
Instructor: Diamond

An investigation of techniques useful in the mechanical design process. Topics include computer graphics, computer-aided design, computer-aided manufacturing, computer-aided (finite element) analysis, and the influence of manufacturing methods on the design process. Project work will be emphasized. Enrollment is limited to 024 students.

Prerequisite: ENGS 76

ENGS 147 - Mechatronics
Instructor: Ray

Mechatronics is the systems engineering approach to computer-controlled products. This course will integrate digital control theory, real-time computing, software design, sensing, estimation, and actuation through a series of laboratory assignments, complementary lectures, problem sets, and a final project. Topics covered will include microprocessor based real-time computing, digital control, state estimation, signal conditioning, sensors, autonomous navigation, and control architectures for autonomous systems. Enrollment limited to 18 students.

Prerequisite: ENGS 26 or ENGS 145 and two of ENGS 31, ENGS 32, ENGS 33, ENGS 76 or equivalent

ENGS 150 - Intermediate Fluid Mechanics
Instructor: Meyer

Following a review of the basic equations of fluid mechanics, the subjects of potential flow, viscous flows, boundary layer theory, turbulence, compressible flow, and wave propagation are considered at the intermediate level. The course provides a basis for subsequent more specialized studies at an advanced level.

Prerequisite: ENGS 25 and ENGS 34, or permission of the instructor

ENGS 151 - Environmental Fluid Mechanics
Instructor: Roisin

Applications of fluid mechanics to natural flows of water and air in environmentally relevant systems. The course begins with a review of fundamental fluid physics with emphasis on mass, momentum and energy conservation. These concepts are then utilized to study processes that naturally occur in air and water, such as boundary layers, waves, instabilities, turbulence, mixing, convection, plumes and stratification. The knowledge of these processes is then sequentially applied to the following environmental fluid systems: rivers and streams, wetlands, lakes and reservoirs, estuaries, the coastal ocean, smokestack plumes, urban airsheds, the lower atmospheric boundary layer, and the troposphere. Interactions between air and water systems are also studied in context (for example, sea breeze in the context of the lower atmospheric boundary layer).

Prerequisite: ENGS 025, ENGS 034 and ENGS 037, or equivalents

ENGS 152 - Magnetohydrodynamics
Instructor: Staff

The fluid description of plasmas and electrically conducting fluids including magnetohydrodynamics and two-fluid fluid theory. Applications to laboratory and space plasmas including magnetostatics, stationary flows, waves, instabilities, and shocks.

Prerequisite: PHYS 68 or equivalent, or permission of the instructor

Cross-Listed as: PHYS 115

ENGS 153 - Computational Plasma Dynamics
Instructor: Liu

Theory and computational techniques used in contemporary plasma physics, especially nonlinear plasma dynamics, including fluid, particle and hybrid simulation approaches, also linear dispersion codes and data analysis. This is a “hands-on” numerical course; students will run plasma simulation codes and do a significant amount of new programming (using Matlab).
Prerequisite: PHYS 68 or equivalent with ENGS 91 or equivalent recommended, or permission of the instructor

Cross-Listed as: PHYS 118

**ENGS 154 - Aircraft Design**

This project-based course immerses students in the clean-sheet design of a remotely-controlled aircraft. Students design and fabricate their aircraft from scratch, self-identify gaps in knowledge, and seek out information from a variety of sources. Class periods involve guided discovery of the physical principles of flight, as well as the development and use of mathematical models for design calculations. Assignments focus on the information and calculations needed to model and design the aircraft. This course calls upon material across multiple engineering disciplines: systems engineering; aerodynamics; structural analysis; flight stability and control; and propulsion.

Prerequisite: ENGS 34 and one of ENS 26, ENGS 31, ENGS 33. Equivalent courses allowed by permission.

**ENGS 155 - Intermediate Thermodynamics**

Instructor: Frost

The concepts of work, heat, and thermodynamic properties are reviewed. Special consideration is given to derivation of entropy through information theory and statistical mechanics. Chemical and phase equilibria are studied and applied to industrial processes. Many thermodynamic processes are analyzed; the concept of exergy (availability) is used to evaluate their performance, and identify ways to improve their efficiency.

Prerequisite: ENGS 25

**ENGS 156 - Heat, Mass, and Momentum Transfer**

Instructor: Lasky


Prerequisite: ENGS 25 and ENGS 34

**ENGS 157 - Chemical Process Design**

Instructor: Laser

An in-depth exposure to the design of processes featuring chemical and/or biochemical transformations. Topics will feature integration of unit operations, simulation of system performance, sensitivity analysis, and system-level optimization. Process economics and investment return will be emphasized, with extensive use of the computer for simulation and analysis.

Prerequisite: ENGS 36

**ENGS 158 - Chemical Kinetics and Reactors**

Instructor: Laser

The use of reaction kinetics, catalyst formulation, and reactor configuration and control to achieve desired chemical transformations. The concepts and methods of analysis are of general applicability. Applications include combustion, fermentations, electrochemistry, and petrochemical reactions.

Prerequisite: ENGS 36

**ENGS 160 - Biotechnology and Biochemical Engineering**

Instructor: Gerngross

A graduate section of ENGS 35 involving a project and extra class meetings. Not open to students who have taken ENGS 35.

Prerequisite: MATH 3, CHEM 5, BIOL 12 or BIOL 13 and permission of the instructor

**ENGS 161 - Microbial Physiology and Metabolic Engineering**

Instructor: Olson

A consideration of cellular metabolism, with an emphasis on microbial metabolism, and its manipulation in order to produce products of interest. Quantitative descriptions of energy generation, cell growth, and biosynthesis will be addressed in the context of both unstructured and structured models. General principles of metabolic engineering, including metabolic control theory, will be presented and illustrated using case studies. Students will complete a substantial course project related to goal-directed analysis and manipulation of metabolism.

Prerequisite: ENGS 160 and a non-introductory course in biochemistry or molecular biology, or permission

**ENGS 162 - Basic Biological Circuit Engineering**

Instructor: Sarpeshkar

This course will provide a comprehensive introduction to the design, modeling, and experimental implementation of synthetic bio-molecular circuits in living cells. Simple but sophisticated synthetic biological circuits will be implemented and tested in microbial cells in the laboratory including those involving molecular amplification, regulatory feedback loops with biological nonlinearities, and robust analog circuits. Computer aided design, modeling, and simulation will use CADENCE, an industry standard electronic circuit design tool showing how to
design, model, and fit actual experimental biological data such that engineering circuit theory and biological experiment agree. Not open to students who have taken ENGS 59.

Prerequisite: MATH 3 or MATH8 or equivalent experience in Basic Calculus, CHEM5, BIOL13. Experience in Molecular Biology is useful (e.g. ENGS 35, BIOL 45, & BIOL 46 or equivalent) but not necessary. Experience in Signals and System Modeling is also useful (e.g. ENGS 22) but not necessary.

ENGS 163 - Advanced Protein Engineering
Instructor: Lee
This course will build on molecular engineering fundamentals introduced in ENGS58 and equip students to formulate novel engineered molecules by translating methods into practical design proposals. The three components of any protein engineering effort will be surveyed: host strain, library design, and selective pressure. Both gold standard and novel engineering methodologies will be studied, and tradeoffs among different techniques will be examined through detailed case studies. Data presentation and interpretation skills will be developed by examining current literature focused on proteins with practical utility.

Prerequisite: ENGS 58, or ENGS 160, or BIOCHEM 101.
Equivalent courses accepted with instructor's permission.

ENGS 164 - Medical Diagnostics and Monitoring
Instructor: Pogue
A comprehensive introduction to all major aspects of standard medical imaging systems used today. Topics include radiation, dosimetry, x-ray imaging, computed tomography, nuclear medicine, MRI, ultrasound, and imaging applications in therapy. The fundamental mathematics underlying each imaging modality is reviewed and an engineering picture of the hardware needed to implement each system is examined. The course will incorporate a journal club review of research papers, term tests, and a term project to be completed on an imaging system.

Prerequisite: ENGS 92 (may be taken concurrently)

ENGS 167 - Medical Imaging
Instructor: Pogue
A comprehensive introduction to all major aspects of standard medical imaging systems used today. Topics include radiation, dosimetry, x-ray imaging, computed tomography, nuclear medicine, MRI, ultrasound, and imaging applications in therapy. The fundamental mathematics underlying each imaging modality is reviewed and an engineering picture of the hardware needed to implement each system is examined. The course will incorporate a journal club review of research papers, term tests, and a term project to be completed on an imaging system.

Prerequisite: ENGS 92 (may be taken concurrently)

ENGS 169 - Intermediate Biomedical Engineering
Instructor: Halter
A graduate section of ENGS 57. Students taking the course for graduate credit will be expected to write a research proposal aimed at developing a specific surgical technology. Group assignments will be made and each group will work together. The proposal will require an extensive literature review, a detailed proposal of research activities, alternative methods, and timeline, and a detailed budget and budget justification for meeting the research objectives. Weekly meetings will take place between the groups and Professor Halter to discuss progress. By the end of the term the groups are expected to have a complete proposal drafted. Enrollment is limited to 18 students. Not open to students who have taken ENGS 57.

Prerequisite: ENGS 23 and ENGS 56 or equivalent

ENGS 170 - Neuroengineering
Instructor: Halter
This course will introduce students to currently available and emerging technologies for interfacing with the human brain. Students will study the fundamental principles, capabilities and limitations of a range of relevant technologies within the scope of noninvasive brain-computer interfaces, neural implants, neurostimulation, sensory substitution and neuroinformatics. The ethical and societal ramifications of these technologies will also be
Applications of neuroengineering technology in medicine will be emphasized such as the diagnosis and treatment of neurological diseases and neural rehabilitation.

Prerequisite: ENGS 22 and ENGS 56

**ENGS 171 - Industrial Ecology**

Instructor: Roisin

A product’s environmental impacts result from design, production, and operational choices. Industrial ecology identifies economic ways to improve these environmental impacts, chiefly by designing for circular material flows, improving energy effectiveness and material choice, changing user behavior, systems thinking, and otherwise promoting sustainability. The objective of this course is to do all of the above for a product to conceptually invent or innovate a market-viable alternative. To do this, a broad spectrum of industrial activities is reviewed, including products and services. This course examines to what extent environmental and social concerns have already affected specific industries, and where additional progress can be made. Student activities include a critical review of current literature, participation in class discussion, and a term project in design for the environment.

Prerequisite: ENGS 21 and ENGS 37 or instructor permission for MBA students. Students should have a basic understanding of how to progress from initial concept to prototype, and should have a basic understanding of environmental impacts such as pollution and climate change.

**ENGS 172 - Climate Change and Engineering**

Instructor: Albert

The current assessment by the Intergovernmental Panel on Climate Change (IPCC) of the World Meteorological Organization (WMO) and the United Nations Environment Programme (UNEP) will be examined. The course will begin by scrutinizing the scientific basis of the assessment. Subsequently, regional and global impact projections will be examined. The technological options will be examined with respect to research and capitalization priorities, both corporate and governmental. Finally, the possibilities for novel governance structures based on a scientific understanding will be examined. Weekly critical presentations of the source material will be required. The course will culminate in the preparation, presentation, and refinement of a term paper of the student's choosing.

Prerequisite: ENGS 151 or ENGS 156 or EARS 178, or equivalent

**ENGS 175 - Energy Systems**

Instructor: Farid

A consideration of energy futures and energy service supply chains at a systemic level. Dynamic development of demand and supply of primary energy sources and key energy carriers will be considered first assuming continuation of current trends, and then with changes to current trends in order to satisfy constraints such as limiting carbon emissions and changing resource availability. Integrated analysis of spatially-distributed time-variable energy systems will also be addressed, with examples including generation, storage, and distribution of electricity and production of energy from biomass.

Prerequisite: ENGS 25, either ENGG 173 or ENGS 174 or permission of the instructor.

**ENGS 262 - Advanced Biological Circuit Engineering**

Instructor: Sarpeshkar

This course will provide advanced techniques for the design, modeling, and experimental implementation of complex synthetic biological circuits including feedback control and regulation. Advanced & complex synthetic circuits will be designed and tested in bacteria in the laboratory. Computer aided design, modeling, and simulation will use CADENCE, an industry standard electronic circuit design tool. Applications of synthetic biology to medicine and biotechnology will be discussed. In addition, the students will be expected to design a synthetic biological circuit with feedback and control techniques for a class project.

Prerequisite: Basic Biological Circuit Engineering (ENGS 59 or 162); OR Equivalent experience in Molecular Biology Techniques (Either ENGS 35, BIOL 45, BIOL 46) AND equivalent experience in Signals and System Modeling (e.g. ENGS 22).

**ENGS 200 - Methods in Applied Mathematics II**

Instructor: Staff

Continuation of ENGS 100 with emphasis on variational calculus, integral equations, and asymptotic and perturbation methods for integrals and differential equations. Selected topics include functional differentiation, Hamilton's principle, Rayleigh-Ritz method, Fredholm and Volterra equations, integral transforms, Schmidt-Hilbert theory, asymptotic series, methods of steepest descent and stationary phase, boundary layer theory, WKB methods, and multiple-scale theory.

Prerequisite: ENGS 100, or equivalent

Cross-Listed as: PHYS 110

**ENGS 202 - Nonlinear Systems**

The course provides basic tools for modeling, design, and stability analysis of nonlinear systems that arise in a wide range of engineering and scientific applications including
robotics, autonomous vehicles, mechanical and aerospace systems, nonlinear oscillators, chaotic systems, population genetics, learning systems, and networked complex systems. There are fundamental differences between the behavior of linear and nonlinear systems. Lyapunov functions are powerful tools in dealing with design and stability analysis of nonlinear systems. After addressing the basic differences between linear and nonlinear systems, the course will primarily focus on normal forms of nonlinear systems and Lyapunov-based control design methods for a variety of applications with an emphasis on robotics, mechanical control systems, and particle systems in potential fields.

Prerequisite: ENGS 100 and ENGS 145 or equivalents and familiarity with MATLAB

**ENGS 205 - Computational Methods for Partial Differential Equations II**

Instructor: Paulsen

Boundary Element and spectral methods are examined within the numerical analysis framework established in ENGS 105. The boundary element method is introduced in the context of linear elliptic problems arising in heat and mass transfer, solid mechanics, and electricity and magnetism. Coupling with domain integral methods (e.g. finite elements) is achieved through the natural boundary conditions. Extensions to nonlinear and time-dependent problems are explored. Spectral methods are introduced and their distinctive properties explored in the context of orthogonal bases for linear, time-invariant problems. Extension to nonlinear problems is discussed in the context of fluid mechanics applications. Harmonic decomposition of the time-domain is examined for nonlinear Helmholtz-type problems associated with EM and physical oceanography.

Prerequisite: ENGS 105

**ENGS 220 - Electromagnetic Wave Theory**

Continuation of ENGS 120, with emphasis on fundamentals of propagation and radiation of electromagnetic waves and their interaction with material boundaries. Propagation in homogeneous and inhomogeneous media, including anisotropic media; reflection, transmission, guidance and resonance, radiation fields and antennas; diffraction theory; scattering.

Prerequisite: ENGS 100 and ENGS 120 or permission of the instructor.

**ENGS 250 - Turbulence in Fluids**

Prerequisite: ENGS 150 or equivalent.

**Graduate Studies Office Courses**

Unspecified Graduate Studies Courses

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**Graduate Ethics**

The Graduate Studies Office, in collaboration with the Ethics Institute at Dartmouth, has developed an institution-wide training program in the basics of professional ethics. This program is a requirement for all first-year Arts and Sciences graduate students. The Graduate Ethics Program has four components: an opening session during orientation, a graduate student ethics survey, and four small group discussions addressing focal topics during the first year of graduate school.

**Professional Development and Leadership**

Each term the Graduate Studies Office offers a variety of training sessions on teaching, research, and career development that students from many different departments attend. The new program will formalize the process of giving students credit for coming to these workshops and will recognize students’ efforts to develop their skills and prepare for their future careers.

Doctoral students participating in the professional development program will earn credit hours toward one course during the time they are working toward their PhD. The credit will appear on students’ transcripts under the label *Professional Development*. Workshops will be divided into *core* sessions, such as sessions on ethics, writing, presenting, mentoring, leadership, and time management, and *elective* sessions, divided into sessions on research, teaching, and career exploration.

Sessions that would fall under the elective category of *research* include sessions on lab management, grants and funding opportunities, science proposals, and patents. Elective sessions that would be categorized as *teaching*, could include a teaching series led by the Dartmouth Center for the Advancement of Learning (DCAL), sessions on syllabus design, workshops on being a TA, and sessions on laboratory design. Sessions that focus on *career exploration* would include those on academic and non-academic job searches, sessions on writing CVs and resumes, and sessions in which alumni discuss their career paths.

**Communicating Science**

Mark A. McPeek, Nancy Serrell, Christopher Kohn, Gifford Wong (Fall 2013)

Sure, you know how to present your research to the experts, but can you talk about it with other audiences - without your slides? The goal of this 10-week, interdisciplinary graduate course is to help current and future scientists speak about their work more spontaneously, and to connect more directly and responsively with their audiences and each other.

The course, which is eligible for credit through the Graduate Office, is based on a model developed by Alan
Alda at Stony Brook University. Using improvisation exercises designed to enhance presence, charisma and confidence students will develop their observation and active listening skills and learn relaxation techniques. Peer feedback is an essential component of this course, and students will participate in exercises to develop their skills in story telling and two-way communication. Special focus will be placed on enhancing clarity and vividness, avoiding jargon and using emotion. The class will meet Monday late afternoon/early evening in the fall term from 4:30-7:00.

Master of Arts in Liberal Studies

Chair: Donald E. Pease

Dartmouth College offers a graduate program leading to the degree of Master of Arts in Liberal Studies (M.A.L.S.). This program places special emphasis on a multidisciplinary approach to advanced study in the liberal arts. The program offers an advanced liberal studies education through both directed and independent study. The M.A.L.S. program is described briefly in the Graduate Study section of this catalog. The program offers courses in General Liberal Studies, Cultural Studies, Globalization Studies and Creative Writing. M.A.L.S. courses are open only to graduate students. See the M.A.L.S. Website for more detail.

To view Master of Arts in Liberal Studies courses, click here (p. 779).

Master of Arts in Liberal Studies

MALS 120 - Summer Symposium

Credit/No Credit Degree Requirement for all Concentrations - See more at: http://mals.dartmouth.edu/academics/course-information/course-descriptions#sthash.MzbmADKv.dpuf

Credit/No Credit Degree Requirement for all Concentrations - See more at: http://mals.dartmouth.edu/academics/course-information/course-descriptions#sthash.MzbmADKv.dpuf

Credit/No Credit Degree Requirement for all MALS Concentrations

MALS 130 - Cultural Studies Research Methods

Instructor: Klaus Milich

Writing a research paper requires the knowledge of the scope, the genesis, and the methods of the discipline one is engaged in. The goal of this workshop is to make students aware of their own approaches to help them develop their own research projects. It will cover methods of practical implementation, skills and strategies to obtain better results in research and class performance. Apart from learning how to apply and integrate different genre such as excerpts, protocols, reports, summaries, or charts that help preparing a presentation, writing a paper, or finishing a thesis, discussions will address the following questions:

1. What distinguishes scholarship from other forms of knowledge production (media, encyclopedias);
2. What research means in the sciences and in the humanities, and how individual disciplines produce knowledge;
3. What it means to read and write “critically;”
4. How to distinguish “scientific facts,” from “producing meaning;”
5. How to turn individual observations and experiences into viable scholarly projects and why framing the right question might be more important than the answer;
6. How research strategies and different forms of systematic thinking might be helpful at working places outside the university and beyond scholarly projects. In order to practice how to plan or carry out research and how to build an argument, students will be asked to bring in their own work in progress, be it an initial idea for a final paper, a proposal for an independent study, or a chapter of their thesis.

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1. What distinguishes scholarship from other forms of knowledge production (media, encyclopedias);
2. What research means in the sciences and in the humanities, and how individual disciplines produce knowledge;
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5. How to turn individual observations and experiences into viable scholarly projects and why framing the right question might be more important than the answer;
6. How research strategies and different forms of systematic thinking might be helpful at working places outside the university and beyond scholarly projects.
In order to practice how to plan or carry out research and how to build an argument, students will be asked to bring in their own work in progress, be it an initial idea for a final paper, a proposal for an independent study, or a chapter of their thesis.

MALS 131 - Social Science Research Methods
Instructor: Kerry Landers
Qualitative and quantitative data provide different kinds of information to the researcher. Quantitative research measures the reactions of large numbers of people and provides generalizable data. Qualitative research produces detailed data on a small number of cases for an increased depth of understanding. Conducting research in the social sciences requires knowledge of both quantitative and qualitative methods. Numerous qualitative methods exist with a great diversity of theoretical models. This workshop will focus on ethnographic research, often used by sociologists, anthropologists, and educators to look at the culture of groups and settings. The primary focus of this workshop will be on qualitative methods with discussion on survey methods. Students will design their own research projects based on their scholarly interests (generated by previous classes) that they would like to further pursue for the basis of their thesis research.

MALS 132 - Writing Methodologies: Strategies for Creative Writers
Instructor: Anna Minardi
This is a discussion based course focused on the preparation and discipline writers need to develop as they progress in their chosen genres. The text selected as the basis for class conversations offers a discussion of various writing concerns that all writers face as they consider such questions as audience, goal, use of language, placement of oneself. The text will be supplemented by short student pieces that may reflect the issues raised by Todd and Kidder in the book.
The course goal is create a sense of familiarity with the writing process for students who are starting to write. For students with more experience, the goal is to articulate the questions related to the areas they want to develop. The exchange between beginning and more advanced writers will be valuable in creating an awareness of the questions that propel writers at all levels and in all genres. The class will be enhanced by visits from MALS writing professors and creative writing thesis students.

MALS 137 - Thesis Research
MALS students with an approved Thesis Proposal on file may elect to enroll in Thesis Research. Students enrolling in MALS 137 must be "in residence" (within commuting distance of the college), meet regularly with their principle reader and make significant progress toward completing the thesis during the term.

MALS 140 - Writing Workshop: Fiction
Instructor: Saul Lelchuk
This writing course uses a discussion-based, workshop-centered approach to allow both novice and experienced writers to develop their abilities in fiction and particularly the form of the short story. Weekly writing assignments will focus on ethnographic research, often used by sociologists, anthropologists, and educators to look at the culture of groups and settings. The primary focus of this workshop will be on qualitative methods with discussion on survey methods. Students will design their own research projects based on their scholarly interests (generated by previous classes) that they would like to further pursue for the basis of their thesis research.

MALS 191 - Preserving the Past: Oral History in Theory and Practice
Instructor: Harvey Frommer
“Preserving the Past” will explore the theoretical implications, practical applications, and literary dimensions of oral history. Through reading and discussion, students will be exposed to a variety of oral histories and evaluate the uses of individual and/or collective memory as a means of documenting, understanding, and appreciating the past. Oral history will be examined as a literary genre with consideration of how the oral historian becomes a creative writer whose work relies almost wholly on the voices of those interviewed. The special demands of oral biography will be considered as well.

Issues to be addressed include: the place of oral history—by nature personal and subjective—in the larger historical framework; changes demanded by a shift in medium as the oral historian transfers taped commentary to print; the role of the oral historian/oral biographer as re-caster and re-arranger of memory; evolving recording technologies and the impact of the medium on oral history’s “message” and “massage.”

Selected oral histories (see Required Reading) will be contrasted with and compared to traditional historical
accounts of similar events, as well as to one another as regards purpose, methodology, style, and literary effectiveness. Additionally students can consult historical works (see Recommended Reading) for insights into the ways in which oral history has been included. The roles and responsibilities of the practitioner as interviewer, archivist, historian, biographer, and artist will be examined and critiqued.

The Course agenda will hone students skills in interviewing, listening, transcribing, editing and organizing—moving from the spoken word to a final polished oral history work.

Each student will produce an oral history project comprised of 6-12 voices on a cultural, institutional, local, familial, personal, or event-based topic. Ongoing guidance will be available through one-on-one meetings as the student goes through the process of selecting a theme and individuals to interview, preparing for and conducting interviews, transcribing and editing tapes, and fashioning from them the final work. Through discussing their projects in the Workshop component of the course, students will have the opportunity to network and benefit from feedback.

Requirements

- Timely and thorough readings of assigned works to be reflected in informed participation in class discussions. (Books must be on hand for the sessions they are to be discussed.)
- Participation in a Collateral Readers’ Panel based on in-depth reading/viewing of a portion of a traditional historical work/documentary that deals with one or more of the subjects treated in an assigned oral history. Submission of a satisfactory Oral History Project.

Grades will be based on the quality of work in all of the above. Attendance at all class sessions is mandatory.

Hours

Students must meet with either professor a minimum of four times during scheduled Friday hours for one-on-one consultations.

MALS 202 - Reading & Viewing the Holocaust
Instructor: Alan Lelchuk

How has the Holocaust been seen and viewed in literary works and in films? How well can works of art represent the nightmare of 20th century history? Can books and films, the world of the aesthetic, dramatize the history of the Holocaust, and sustain the memory adequately?

This course will consider those questions, by means of analyzing some of the major writings and movies trying to come to terms with the unimaginable history.

In literature, we will read the fiction of Ida Fink, Teodor Borowski, Ilona Karmel, Elie Wiesel, Aharon Appelfeld, among others. In cinema, we will look at films such as Orson Welles (“The Stranger”), Sidney Lumet (“The Pawnbroker”), Vittoria de Sica (“The Garden of the Finzi-Continis”), Marcel Ophuls (“The Sorrow and the Pity”), Roman Polanski (“The Pianist”).

MALS 205 - Narrative Non-Fiction
Instructor: Barbara Kreiger

This course is aimed at those with a special interest in non-fiction creative writing. We'll address aspects of the narrative including the story itself, style, voice, and the use of reflection as we consider the ambiguous nature of experience.

Writing background is preferred but is not a prerequisite. What is required is a commitment to the imaginative exploration of experience and a serious desire to devote oneself to the writing process.

MALS 206 - The Craft and Culture of Journalism
Instructor: Christopher Wren

The logic and fundamentals of news gathering as reinvented for the 21st century. What constitutes news today and why it matters. How to make the significant more interesting. Distinguishing between journalism and the media. Issues and opportunities in the changing economics of journalism, the collapse of traditional print outlets and the demise of the twenty-four-hour news cycle. The conflation of reporting, analysis and opinion in the digital transformation of multi-platform news. The rise of social media like Facebook and YouTube as disseminators of breaking news and information. Wikileaks and other ethical dilemmas for journalists. Students should expect to write weekly, experimenting with an expanding variety of media outlets, from legacy newspapers and magazines to digital websites and citizen
blogs, and mining numbers, polls and statistics to extract the essentials worth covering. Exploring the injunction of the veteran journalist Gay Talese that the best journalism should be as well-written and compelling as fiction, students will hone skills applicable to drama and arts criticism and narrative non-fiction and fiction. This writing course, taught by a former New York Times foreign correspondent, reporter, editor and author, will also track political, economic and conflict developments in real time via the Internet.

MALS 213 - Fiction-Short Story
Instructor: Alan Lelchuk

This course is aimed at those with a special interest in creative writing. Writing experience is preferred, but is not a prerequisite, nor is it necessarily essential that the student know exactly what he or she wishes to focus on. What is required is a commitment to the imaginative exploration of experience and a serious desire to devote oneself to the writing process. Emphasis will be placed on student work, but a large number of published stories and essays will be analyzed as well. Classes will be mostly discussions, with periodic lectures. The aim of the course is two-fold: to help the student understand literary writing from the writer's point of view, and to raise student prose to publishable level or nearly so.

MALS 226 - Screenwriting
Instructor: Bill Phillips

One should emerge from this course with 1) the first draft of a professional-quality feature length screenplay and 2) the knowledge of how to do subsequent revisions. No previous creative writing experience is necessary. Whether your idea is "commercial," "artistic," or "personal" will not matter in terms of the focus of this course, but we will be concerned with your producing something that will hold up to professional scrutiny. We will emphasize the following: 1) a comprehensible story with a beginning, middle and end 2) a sympathetic protagonist 3) a worthy antagonist 4) an appropriate "love-interest" (if any), 5) how to keep your story a "page turner," so the reader will want to keep going; 6) proper format and length (100-120 pages) and absence of typos, 7) originality of premise and dialogue. Since you will be expected to write an entire first draft of a feature script within this course, it behooves you to be somewhat prepared. It would help if you have a story in mind, a protagonist, a worthy antagonist, a love-interest (if appropriate), and at least an idea of your beginning, middle and end. It also really helps to have at least 30-40 situations (scenes) to string together to support a feature-length film. We will go over all of this in class, but if you get a head start on your thinking, it will be a tremendous help to you.

MALS 239 - Poetry Workshop
Instructor: Gary Lenhart

This course will follow workshop format, with students submitting substantial weekly assignments that will be distributed to and considered by participants before class hours. There are no length expectations for each submission, as some are prolific, others deliberate. A guiding aim will be to school workshop members with self-critical tools to apply toward future efforts in the art of poetry. To refine these tools and to inspire our own compositions, we will also read and discuss other poems selected and introduced by the instructor and participants. There will be no text for the course, though a list of recommended critical texts and anthologies will be distributed. All approaches and aesthetics are welcome.

MALS 240 - Globalization and Its Discontents
Instructor: Ronald Edsforth

The subject of this seminar is the widespread and contentious belief that humanity has recently entered a new stage of integration called "Globalization." The seminar explores the simultaneous lauding of globalization and resistance to globalization in the politics and cultures of rich and poor regions of the world. Our discussions focus on readings and films that present many different views of globalization ranging from celebration to skepticism to outright hostility. Taking care to avoid both teleological presumptions and technological fetishism, we begin with a historical review of the economic processes most often identified as "globalization," and ponder the implications of research that shows globalization has a long history and that it has been reversible. Then we spend the rest of the term critically examining the relationships between global economic integration and changes in international politics and law, as well as the emergence of diverse transnational, national, and sub-national movements opposed to the dominant ideas and practices of economic and political globalization. These critics include human rights and environmental activists, indigenous peoples, socialists, nationalists, and fundamentalists of many different faiths.

MALS 244 - World Wars & Global Peace Culture
Instructor: Ronald Edsforth

This course offers you the opportunity to read, think, talk, and write about two of the most important subjects in globalization studies: war and peace. The seminar is organized as an investigation of the fact that, despite the prominence of warfare in daily news media and American popular culture, the last few decades have probably been the most peaceful period in human history. We will focus our investigation first on the long history of ideas about war and peace, then on a global history of warfare, and finally on the recent history of positive efforts to make a more peaceful world. We begin the term examining the long history of important ideas about war and peace. Then, emphasizing developments since 1900, we study empires and international relations, and interstate and intrastate warfare. Finally we examine history of
peace especially liberal internationalism (rule of law, human rights, international organizations); the significance of nonviolent civil resistance since 1945; and third party interventions designed to end long bloody conflicts and build lasting peace.

**MALS 245 - Non-Fiction - Personal Essay**  
Instructor: Barbara Kreiger  
This course on the personal essay concentrates, not surprisingly, on a highly individual point of view. The essay may include both narration and reflection, but it is generally limited in scope and focuses on a single impression or idea. Attention will be devoted to the complex, often ambiguous, nature of experience, and the use of reflection in making even the smallest observations memorable. We will emphasize the short form, though length is not built into the definition, and those who want to explore the longer essay will have an opportunity to do so. Class time will be devoted to both student and published work, the latter intended to offer a variety of approaches and goals.

**MALS 246 - Fiction Writing - Novella**  
Instructor: Alan Lelchuk  
This writing workshop will focus primarily on the longer fictional forms (the novella and the long story). Writing experience is preferred, but is not a prerequisite. Emphasis will be placed on student work, but a good number of published stories and novellas will be looked at as well. Classes will be mostly discussions, analyses, and readings. The aims of the course are to help the young writer understand and practice the longer forms of fiction, to read those forms more judiciously and from a writer’s point of view, and to raise his/her own levels of prose to a high literary standard.

**MALS 247 - Structure & Purpose: Writing in the Digital Age (Non-Fiction)**  
Instructor: Larry Olmsted  
Traditionally there have been just a few paths for publishing non-fiction work: short form magazine and newspaper articles, long form magazine articles (New Yorker, Vanity Fair, etc.) and book length work. In the digital age, these all still exist, but they have been joined by numerous non-print alternatives including web versions of print magazines and newspapers publishing online-only content; purely web-based platforms (Slate, Huffington Post, etc.); blogging platforms (Medium, Tumblr, Blogger, etc.) and self-published blogs. In this course we will examine the demands, audiences, differences and pros and cons of each form of print or digital publication, with particular attention to the use of structure in all cases. There are two main parts to writing any non-fiction narrative: assembling information and choosing how to deploy it. But the second part of this equation depends upon the format of publication and audience for which the work is intended. Each requires its own approach to structure and storytelling. Whether it’s memoir, biography, history, science or researched journalism, all non-fiction tells a story, and stories are most effective when readers find them compelling. But where does a story begin? How does it unfold? These are very important factors in building an enthralling narrative. Some successful non-fiction writers tell stories in a purely linear, chronological fashion, while start at the end or the middle or a seminal moment in between. Where to start is just the beginning - the chosen structure for telling the story runs through the entire work, which might interweave multiple topics, told from different perspectives, unfolding in different order. These choices also depend upon the platform for publication. Traditional newspaper journalism relies heavily upon a Who/Where/What/When/Why format of immediately laying out the primary information for readers and then delving deeper into details. This comes from the basic assumption that readers have already made the choice to look for information in the particular publication. But new media is more focused on competing for the reader’s attention, and each individual article or work stands alone to a greater degree from its underlying platform, demanding that the writer seek attention through headline, topic and structure. On the other hand, book length projects lend themselves to the largest variety of options and the most elaborate structures, and ultimately succeed or fail based on the way the information is presented as much as on the information itself. The class will examine the different outlets for non-fiction publication, print media, online media and books, and the similarities and differences between them, with a focus on the use of structure in all cases. Writing experience is nice, but the only prerequisite is interest in writing. Class time will be devoted to both student and published work, mostly student. Reading will include two full-length books demonstrating different approaches to the use and importance of structure, as well as numerous short and long form printed and online periodical articles more akin in length to the work students will produce. Assigned writings will be a series of short (2-6 page) non-fiction pieces/essays/articles in styles varying weekly, spanning multiple topics and platforms, such as memoir, history, personality profile, and event/subject profile written for print and/or online. In each case the focus will be more on the decision of how to structure the narrative to most effectively tell the story for the chosen audience and platform than on the research and topic itself. All participants will be required to read each other’s work and discuss and critique the effectiveness of the chosen structures as well as the reading assignments weekly.
MALS 248 - Finding the Story: Research, Facts, Narrative
Instructor: Tom Zoellner
This course is aimed at those who want to develop their skills in the genre of literary journalism and creative nonfiction writing. The art of gathering facts is not a straightforward process; it involves research, interviews, and close observation. The writer continues to learn, ask questions, and refine the inquiry as he or she composes an engaging narrative.

Classroom instruction will include narrative uses of material including library work, original documents, on-scene impressions and person-to-person interviews. A third of the class time will be devoted to the examination of acclaimed published works. The majority of the time will be spent in an instructor-led workshop in which each student’s work is critiqued by the group in a constructive fashion, with the goal of rewriting and improvement.

Each student will write three pieces in the course of the term and submit them—along with one comprehensive rewrite—as a final portfolio. The final paper must demonstrate a substantial amount of original reportage and document-based research.

MALS 273 - Frankfurt School Cultural Theory
Instructor: Michael McGillen
The course will explore the Frankfurt School’s reading of European modernity in conjunction with the central cultural and artistic movements of its time. We will read theoretical texts by Kracauer, Benjamin, Adorno, and Horkheimer alongside the modernist cultural products upon which they reflect, from literature to the visual arts, film, and photography. The course will seek to come to terms with the Frankfurt School’s understanding of mass culture in urban modernity; its insights into the nature of perception under the conditions of new media; its reflections on religion, art, and the politics of fascism; and its contributions to modernist cultural forms, from montage techniques to the thought-image. We will practice central methods of cultural studies and intellectual history by situating cultural material in its historical context, assessing and evaluating theoretical interventions, and analyzing the medial and generic qualities of aesthetic forms. Requirements: Active participation in seminar discussions; one oral presentation; and a 15–20 page seminar paper.

MALS 276 - From Carter to Clinton: U.S. Neoliberalism Comes of Age
Instructor: Julia Rabin
This course explores the rise of neoliberalism through disparate strands of political, economic, and cultural history from the early 1970s to the 1990s. The 1970s has been defined by the “oil crisis” that had Americans lined up for gas, the “crisis of confidence” diagnosed by President Jimmy Carter, and the “crisis” of narcissism described as the “Me Decade.” Until recently the 1970s was dismissed with embarrassed references to defeat and self-indulgence. Yet it was the decade in which far-reaching and threatening economic shifts became evident and changes prompted by the political rebellions and social upheavals of the 1960s took hold in unexpected ways. The New Right sharpened the cultural critique and grassroots strategies that would yield Ronald Reagan’s major conservative victories in the 1980s and cement neoliberal governing assumptions. Left activists’ attempts to institutionalize the gains of feminism, black power, and gay liberation that would continue to provoke challenges into the 1990s, when Bill Clinton’s “third way” campaign stood as a referendum on the policies of the past. Drawing on primary sources, historical analyses, and cultural criticism, this course explores three decades of Americans’ engagement with globalization, social inequality, and cultural contestation.

MALS 277 - Coloring Gender
Instructor: Regine Rosenthal
Taking its point of departure from the different waves of the women’s movement, this course will trace multiple feminisms and a wide range of gender issues that have been largely sidelined or ignored by mainstream feminism. It will add “color” to gender by focusing on minority groups in the US, such as African American, Latina, Native American women, and their take on feminism and gender, especially in relation to race, ethnicity, and nation. Conversely, it will also include feminism’s work on racism by addressing the issue of women’s collaboration in white supremacy discourse, both in the US and racist Nazi Germany. Furthermore, the course will explore other trans/national contemporary debates within feminism, amongst them ecofeminism as well as women and postcolonialism, indigeneity, and religion (e.g. Islam).

MALS 280 - Legitimacy of Global Modernity
What are the main sources of social order in an increasingly global world (dis)order? We reside at the far end of vast, rapid and complex processes of social transformation referred to as modernization. These processes include the development of new ways of organizing economies, politics, culture, and society—the fundamental building blocks of human communities. One central issue addressed in this course is the worth or legitimacy of modernity. Which of the institutions and ideas that structured and guided processes of modernization are worth defending or reforming? Which should be rejected? Or should we reject them all and instead embrace a new, post-modern political epoch? To approach these questions we will focus on the market economy, the nation state, discipline and discourse, and we will read from the giants of modern social theory: Smith,
Are ‘Europeans’ increasingly ‘provincialized’ as Western power from the prejudices that informed their elaboration? they be reformulated in a way that divorces their critical theory invalidate its central concepts and insights? Or can

Does the Eurocentrism of the tradition of modern social theory invalidate its central concepts and insights? Or can they be reformulated in a way that divorces their critical power from the prejudices that informed their elaboration? Are ‘Europeans’ increasingly ‘provincialized’ as Western political, social and epistemic hegemony declines in an ever-more global world? This course tackles these issues in tandem. It pairs some of the most important modern social theorists with some of their most trenchant global and post-colonial critics, exploring several dimensions of the interchange between ‘the West and the rest’ and in the process throwing into sharp focus the question of the legitimacy of global modernity.

MALS 281 - The Art of Travel Writing
Instructor: Barbara Kreiger

This course is aimed at those with a special interest in travel writing, a subgenre of literary nonfiction broadly described as narratives of encounters with unfamiliar places and peoples, with an emphasis on the highly subjective nature of the experience. The focus will be on the construction of a narrative, the role of the narrator, and the development of themes. We will consider narrative voice, the physical and cultural territory, and the meaning of the journey. To what extent is travel writing descriptive, and to what extent inventive? How do the author’s own needs and assumptions affect the record of his or her journey? What is the relationship between the viewer and the viewed? How is the narrative both a window and a mirror? Writing experience is preferred, but is not a prerequisite. Class time will be devoted to both student and published work. Authors to be read will include Freya Stark, Robert Byron, Edith Wharton, and D.H. Lawrence.

MALS 284 - Homegrown: “Local” in a Globalized Age
Instructor: Julia Rabig

Globalization has eroded local traditions, economies, and sources of authority. Yet, in in spite of – or perhaps because of this – the local has retained both its allure and potency as a discourse of social, cultural, and political resistance to globalization. Adages such as “all politics is local” and “think globally, act locally” reflect commonly touted assumptions of the enduring significance of the local.

This course draws on theoretical texts, documentary film, history, and cultural studies to analyze articulations of the local in a range of responses to globalization. Early readings will establish the contours of globalization and prompt students to pose broad questions about what theorists call the “production of locality.” We’ll explore these questions with close readings around four themes, including media, civil society, food, and labor. We’ll read work by Antonio Negri, David Harvey, and Saskia Sassen, among others. Topics covered will range from the 1994 Zapatista uprising in Mexico and its influence on other resistance movements to expressions of “gastronationalism” and the politics of local food consumption.

Students will write a brief 5-page essay responding to the readings, a 7-10 page review essay, and a 12-15-page research paper, on which they’ll base a class presentation. Students will be required to purchase several texts, but the majority of readings will be available on Blackboard.

MALS 287 - Religion & Politics in a Post-Secular World: Rethinking Secularization
Instructor: Michael McGillen

Narratives about the emergence of European modernity often link the rise of the modern nation state and the triumph of Enlightenment rationality with the decline of religion in a process of secularization. With an increasing separation of religion and politics, the story goes, religion is relegated to the private sphere while a civic politics occupies the public sphere. A globalized world characterized by networks of communication and cultural exchange might appear, then, as the epitome of a cosmopolitan capitalism and its secular ethos.

In the last two decades, however, this narrative of secularization has been called into question in the midst of a “return of religion” in a “post-secular society.” Scholarship on political theology, meanwhile, has shown how modern politics and its concept of sovereign power adopt and appropriate religious forms of thought in their secular institutions. Instead of secularization as the decline of religion, critics are rethinking secularization in terms of a hidden afterlife of religion in a secular modernity that is unable to cast aside its theological roots.

The course will examine how the return of religion and political theology are transforming politics in a globalized and post-national European modernity. In what ways might religion undergird the call for a “radical Enlightenment” that exceeds national boundaries? How might a post-secular society entertain a dialogue of religion and the secular through mutual translation? How might religion provide a basis not only for the theory of sovereign power but for forms of resistance in which the public sphere is contested?

We will tackle these questions through readings of
classical texts (Luther, Hobbes, Spinoza, Kant, Schmitt) alongside the work of twentieth-century and contemporary German, French, and Anglo-American critics (de Vries, Casanova, Hardt and Negri, Arendt, Lefort, Foucault, Said, Löwith, Blumenberg, Habermas, Taylor, Asad).

**MALS 289 - Digital American Cultural Studies**

Instructor: James Dobson

This graduate seminar provides an overview of the various theories and methods used by digital humanists to study American culture. The course takes up the question of “where is ‘America’ in cultural studies” by examining the degree to which the nation still matters in the digital humanities. Recent approaches will be studied alongside traditional methods of humanistic inquiry. We will give particular attention to critical code studies, game studies, and machine learning approaches to distant reading. Two short essays will interrogate oppositional positions within the field of digital cultural studies. Final projects will approach an object of American culture through digital methods or produce a reading of a digital object. Course readings include (among others): Alan Liu, N. Katherine Hayles, Matthew L. Jockers, Lev Manovitch, and Lisa Gitelman.

**MALS 290 - Borders & Boundaries: Race, Gender, and the Human**

Instructor: Regine Rosenthal

This course will focus on the question of erecting, crossing, and/or transcending borders and boundaries in relation to race, gender, and the human. Thus, it will critically address and theorize the more recent tendency to shift and cross normative borders in a way that runs counter to the constraints implied in traditional models of gender and race. In terms of gender, it will emphasize the contemporary fluidity of concepts of masculinity and femininity, deconstruction of hierarchical gender models, as well as the growing debate around transgender issues in texts, among others, by Judith Butler. In terms of race, it will address the paradigm’s contested definitions and boundaries, and the current debate on its social implications. It will discuss the issues of exclusion and inclusion, the third space, post-colonialism and the ideology and policy of race/racism by focusing, among others, on creative non-fictional narratives as well as theoretical texts by Frantz Fanon and W.E. DuBois. As a third angle on questioning borders, it will explore the aspect of the human - both in and beyond its relation to race, gender, and the concurrent effect of dehumanization - in texts by Hannah Arendt, Giorgio Agamben and Jacques Derrida on human and civil rights, crimes against humanity, sovereign power vs. bare life, and man in relation to animal.

**MALS 291 - Capitalism, Labor, and the Law in the Global United States**

Instructor: Gabrielle Clark

Was the US born capitalist? If so when, how, and with what consequences in global political economy and the world? How have changes in production and labor processes across time relied upon and re-shaped US law and political struggles under it? Has there always been and will there always be an “inside” and an “outside” to economic gains and the American legal system? Where are we now and how are we related to past configurations of capitalism, labor, and the law? With attention to political economy and the law, this course takes a historical approach to development, state-formation, power, and labor and employment relations in the United States. In so doing, we trace the global origins and global present of American capitalism and follow the struggles waged by citizens, servants, slaves, unions, migrants, and workers laboring extra-territorially for US interests in American law. We will not only read secondary texts, but key legal decisions addressing the topics listed above.

**MALS 292 - Critical Prison Studies**

Instructor: Heike Paul

The prison has become a central institution of American society; more than two million people are currently held in federal prisons, state prisons, juvenile correctional facilities, local jails, military prisons, and detention facilities at home and in US territories abroad. In fact, US incarceration rates are the highest worldwide. Whereas in the 19th century the American prison was often considered a ‘modern’ institution of reform (replacing corporal punishment) which was visited and inspected by European visitors such as Alexis de Tocqueville and Charles Dickens, it has become the object of grave humanitarian concerns in the 20th and 21st centuries. Terms such as “carceral state” and “prison industrial complex” (referring to profit-oriented multinational corporations in the prison sector) figure prominently in recent critical interventions. We will briefly review the history of the US prison system in the first part of the seminar.

For those on the outside, the prison population is often rendered invisible and voiceless. And yet, from its beginnings, American literary and cultural production abounds with experiences of captivity, bondage, and imprisonment. H. Bruce Franklin, for instance, has remarked on the African American literary tradition as being rooted in the experience of imprisonment and slavery, and obviously race and racialization continue to be crucial aspects in view of a prison population that is largely non-white. Of course, other markers of difference such as gender, class, religion, and sexual orientation also have to be taken into account. In response to the dramatic increase in imprisonment rates over the last decades, prison abolitionism has formed and become a major social and
political movement to protest mass incarceration as the “New Jim Crow” (Michelle Alexander, Angela Davis). In the second part of this seminar we will focus on prison writing in various forms (including texts, films, and television series) and on the theoretical approaches that have emerged in the field of critical prison studies to adequately address the nexus of violence, (state) power, and punishment.

Required reading includes texts by Michel Foucault, Malcolm X, Martin Luther King, Jr., Leonard Peltier, Hisaye Yamamoto as well as Angela Davis, *Are Prisons Obsolete?* (2003), Stewart O’Nan, *The Good Wife* (2005), and Piper Kerman, *Orange is the New Black* (2015). The shorter texts will be made available on the canvas-platform.

**MALS 293 - Empire & Law**

Instructor: Gabrielle Clark

In 2000, political philosophers Michael Hardt and Antonio Negri published “Empire,” a work that argued that we have moved from imperialism to Empire, defined as a shift from sovereign to networked rule, from British to American world dominance. If imperialism was a juridical construction extending from the metropole to the colony; Empire, Hardt and Negri argued, is characterized by the boundary-less power of law.

This course on “Empire and Law” is about studying and assessing Hardt and Negri’s history and claims. In so doing, we examine what legal anthropologists have labeled the passage of law and colonialism to that of law and globalization, with a focus upon the British Empire and American power at the close of the twentieth-century. By concentrating upon law and colonialism and law and globalization as fields structuring the global economy since the 19th century, moreover, this course emphasizes and compares the manifold constitutive powers of law in economy and society as well as how scholars in both fields have approached its study. How did law shape colonial empire and what is the role of law under globalization? Did Hardt and Negri fully characterize or over-state the differences in legal rule across empires? Have events since 2000, such as 9/11, the Iraq War, and the election of Donald Trump re-configured Empire and its laws?

**MALS 303 - Latin America and the Caribbean: Race, Discourse and the Origin of the Americas**

Instructor: Raul Bueno; Keith Walker

The Martinican writer Edouard Glissant asserts that the West is not in the west, rather the West is a project. Starting with a consideration of Columbus's "Letter to Santangel" and the reporter Caminha's letter from the Brazilian coast to the Portuguese King Manuel, through the European Enlightenment, the concept of Manifest Destiny and the Monroe Doctrine, one aim of this course is to delineate the vision, project and worldview at the origins of social, political and race discourse and tensions in the Americas today.

From Christopher Columbus' journey accounts to Aime Cesaire's "Discourse on Colonialism", from early indigenous accounts of the Conquest to 1994 Guatemalan Nobel Prize winner Rigoberta Menchu's testimony on modern colonization writings have justified or condemned the colonization of the Americas. The course will focus on the Caribbean and Latin America and the challenges that beset attempts at definitions of these dynamic socio-politico economic cultural realities. Our primary activity will be a close reading of representative letters, testimonies, novels, histories, poetry, films and essays from and about the Caribbean and Latin America.

**MALS 318 - Cultural Studies**

Instructor: Donald Pease

Perhaps because of its capacity to cut across social and political interests and transgress disciplinary boundaries, Cultural Studies has provoked highly contradictory descriptions of its politics and academic location. Cultural Studies has been described as the academic location where the politics of difference -- racial, sexual, economic, transnational -- can combine and be articulated in all of their theoretical complexity. It has also been depicted as an academic containment strategy designed to tame cultural otherness through the universalization of the "idea" of culture and the resistance to theory. In this course we shall analyze the work of scholars -- bell hooks, Douglas Crimp, Janice Radway, Paul Gilroy, Stuart Hall, Homi Bhabha, Andrew Ross, Meaghan Morris, Elsbeth Probyn, Michael Warner, Rey Chow, Cornel west, Kobena Mercer, Judith Butler, among others -- who explicitly reflect upon the importance of conceptualizing and defining this diverse and often contentious enterprise. In addition to examining the social and institutional geneology of the field, we shall deploy disparate methodological practices developed within the field of Cultural Studies to analyze a range of cultural artifices including: film noir, television soap operas, rap music, Hollywood blockbusters, borderlands discourse, whiteness studies and postcolonial theory.

**MALS 337 - The New Global Order: Development, Democracy and Revolution**

Instructor: Evelyn Lechner; Peter DeShazo

Globalization and the pursuit of market-led development have become two crucial concepts that re-emerged full-blown in the wake of the Cold War, as the West triumphed over the Soviet Union and the Marxist model. With the United States as the sole remaining super power, liberal democracy and market-led economies were widely considered by policy makers in the West to be the inevitable cornerstone of a new global order. Yet, the process of globalization since the early 1990s has produced unpredicted results. The end of the Cold War has not generated a prolonged "Pax Americana" marked by an end
to intra-state warfare, insurgencies, or violence, nor has economic development resulted in the consolidation of democracy. The strongest economic performer in the post Cold War period has been China, still an authoritarian Marxist regime, and the Russian Federation that emerged from the former USSR is evolving in a decidedly anti-democratic direction.

The end of the Cold War in the Americas appeared to usher in the potential for greater hemispheric unity, the strengthening of representative democracy and sustained economic growth. While economic development has been historically strong, it remains uneven and the fruits of economic success often distributed in a skewed pattern favoring elite groups. In several countries in the region, a strong reaction to liberal democracy and market-led economic growth gave rise to the consolidation of proto-authoritarian regimes such as that of Hugo Chávez in Venezuela promoting a 21st century brand of revolution and a revival of anti-U.S. sentiment. Countries in the region still contend with problems such as insurgency, organized crime, and high levels of violence.

This course will examine the links between democracy, market-led development, and globalization in greater theoretical depth as well as in practice since the end of the Cold War. It will use Latin America as a particular point of focus in highlighting macro trends in politics and economic policy-making since the 1990s as well as case studies digging deeper into these variables.

The first part of the course focuses on globalization in general, its impact on the world economy and the economies of specific countries and on international business. The tension between globalization and moral questions will be elaborated on. Intellectual/ideological responses to globalization will also be discussed.

The second part of the course will trace trends in Latin America's links to the global economy and the relationship between paths of economic development and political structures. Specific attention will be paid to the transition from military dictatorships to civilian democracies, the challenge of illegally armed groups and criminal organizations to stability in the region, and the current bifurcated development path between countries pursuing market-oriented growth policies and those engaged in inward-led growth and resource nationalism.

MALS 346 - Diasporas and Migrations
Instructor: Regine Rosenthal; Klaus Milich

Over the past two decades, the term diaspora has gained wide currency and intense scrutiny in scholarly work. Originating in the Hebrew Bible as prophecy of the Jewish “dispersion in all kingdoms of the earth,” contemporary uses of the term have accrued meaning in a variety of contexts and disciplines to designate “the movement, migration, or scattering of people away from an established or ancestral homeland.” Considering mass-migration, exile, and expulsion in all sectors of the world, this seminar will focus on a variety of concepts and theories related to diaspora. Studying a range of ethnographic, historical, theoretical, and literary texts, we will compare Jewish, African, and Asian diasporas in the context of historical, cultural and territorial characteristics. We will also discuss questions such as “the power of diaspora” vs. homeland, the role of the nation state vs. transnational or post-national aspects of culture, cultural identity, and hybridity.

MALS 361 - Global Media and Culture
Instructor: Ronald Edsforth; Joanne Devine

This course provides students the opportunity to study, discuss, and write about global media and the transformation of cultures and relations between peoples since the 1980s. Although most historians argue that globalization is an old process that began with the establishment of inter-regional trade many centuries ago, they also agree with other social scientists who see this most recent phase of globalization as qualitatively different from earlier stages of the process. Indeed it seems fair to say that what most people today mean when they use the word “globalization” would not exist without the new global media.

Perhaps the most important features of recent globalization are the continuous development of new media (especially the internet and social media) and the rapid global diffusion of those media. In this course students will study these subjects and how they are involved in ongoing changes in everyday life, social relations, high and popular cultures, and the practice of politics all around the world. Seminar meetings for most of the term will consist primarily of discussion of readings, films, and videos assigned to all students, and at the end of the term discussion the particular research projects done by each student.

SEMINAR REQUIREMENTS
This is not a lecture course. To be successful, all members of the seminar have to participate in discussions of course materials. Students are required to finish assigned readings and videos as preparation for in-class discussions. Readings include several required books, as well as articles that are available online. Videos include documentary and feature films on reserve at the Jones Media Center. Participation in the seminar’s discussions will count for 25% of the final grade.

Students will be required to write a series of three related papers focused on global media in a particular country. Students with good second language skills are encouraged to select a country in which English is not the native tongue. Having each student focus the independent component of their work in the course on media developments and culture in a particular country will
enable the whole seminar to construct a unique global understanding of our subject that is grounded in many details drawn from many parts of the world by the students. Each student will report first on media development in the country they have chosen in a short factual report. Their second paper will describe and discuss the ways media in their particular country have covered a global news story of importance (ie. the election of Donald Trump). The student’s final paper on their particular country will present research on a narrowly defined media subject of special interest to them.

MALS 364 - Telling Stories for Social Change
Instructor: Pati Hernandez

Our social structure is full of unseen, unspoken, and unheard dynamics. These hidden and irresponsible social behaviors have always contributed to the building of visible and invisible social walls. Behind these walls, a growing invisible population has found a way to social visibility through addiction, violence, and crime. This course offers students the unique opportunity to collaborate with a group of people from behind those social walls from two distinct perspectives: theoretical and practical. For one class each week, students will study the root causes of social isolation and invisibility mainly pertaining to incarceration and addiction, in an active learning classroom. For the other half, students will travel to Sullivan County Department of Corrections, in Unity, NH and participate in an interdisciplinary arts program for inmates there. Its final goal is the creation and performance of an original production on the theme of the inmates’ voices. The final project for the course will combine research on themes related to incarceration, rehabilitation, transition, facilitation with critical analysis and self-reflection on the effectiveness of community-based learning and performance in rehabilitation.

MALS 367 - The Biology and Politics of Starvation
Instructor: John Butterly; Jack Shepherd

In 1948, the UN drafted its _Universal Declaration of Human Rights_. In it, Article 25 states that “Everyone has the right to...food...and medical care.” But today almost 800 million people globally — one in about 8 human beings -- remain trapped in extreme hunger and poverty. Despite major strides during the past decade, hunger and poverty remain with us. This course will detail the plight of the so-called “bottom billion” people who are living on less than US$1.25 a day. But it will also examine a second billion, who face chronic hunger and disease in both developing and developed countries. In the United States, for example, some 45 million people – about one in 7 Americans – suffer “chronic food insecurity”. More than half of them are children; 8 percent are elderly.

Despite the good intentions of the _Universal Declaration_ and the more recent Millennium Goals, we have failed to achieve “health and well-being . . . including food, clothing, housing and medical care . . .” for the world’s people. The _Declaration_ remains today a promise diluted, its basic premise and hope unfulfilled. As its core catalytic question, therefore, this course asks: Why?

The instructors and students will use didactic presentations, case study methodology, briefing papers and other analytical tools to interrogate two broad components:

- The first will define and analyze the hunger, health and poverty problems, and the efforts to resolve them. We will present, discuss and use the major documents (U.N., U.S. Census, etc) along with the theories of Thomas Malthus and Amartya Sen. The course will engage the training of its two instructors and juxtapose the social science of poverty and hunger with the biology of chronic undernutrition and the subsequent increased susceptibility to otherwise preventable or treatable infectious diseases responsible for most of the preventable health problems and deaths among the bottom two billion people.

- The course’s second component will focus on workable solutions. If poverty is the cause of chronic hunger and poor health, how might this be resolved? Were the Millennium Goals focused on the wrong solutions? What is working and what is not?

Dr. Jim Yung Kim, until recently head of Dartmouth College and now the 12th president of the World Bank, has often said that the response to hunger, poverty and lack of health care will define “the moral standing” of his generation. This course will focus on the defining edge of that moral response, and participants will be expected to identify and address its details.

MALS 368 - Seeing and Feeling in Early Modern Europe
Instructor: Kristin O'Rourke

Early modern philosophical regimes of knowledge in Europe tend to revolve around two major senses: that of sight, and that of touch. For seventeenth-century French philosopher, René Descartes, for example, perception relies on the ability of the human eye to serve as a direct link between the exterior world and the interior subject (the soul). The desire to understand the ways in which the body perceives the senses and translates them into a basis for memory and knowledge is evident in the art, philosophy, and literature of the day. In this course, we will analyze works of art, literature, and philosophy from the 16th-18th centuries in England, France, Italy, and Germany, asking how aesthetic and materialist theories that emerge and take hold in the early modern period still shape modern understandings of the human and its relation to the world.

Exploring aesthetic reactions and writings on art and literature, we will investigate the idea of sensibility,
perception and the senses, visual knowledge, and modes of feeling and knowing through sight and touch. Readings include selections from Diderot, Rousseau, Burke, Hogarth, Alberti, Leonardo, Vasari, Lessing, Jane Austen, Baudelaire, among others.

MALS 370 - Practical Wisdom: Learning the moral skills to make tough decisions in uncertain times
Instructor: Ken Sharpe

The subject of this course is practical wisdom, the capacity to make difficult ethical choices. Aristotle called this human capacity *phronesis* and saw it as essential for doing the right thing in the right way at the right time. Throughout the course, we will be investigating five questions:

1. What is practical wisdom?
2. When and why do we need it?
3. How do we learn practical wisdom?
4. What institutional forces threaten practical wisdom?
5. How can institutions be designed to encourage and nurture practical wisdom?

We will investigate these questions in several important domains in life - friendship, education, work, medicine, and family. Because practical wisdom is learned by reflecting on our own practices and experiences, we will rely heavily on stories about your own experiences that you will write and present in light of the theory and cases we read. Improving our own skills in reflective practice will also be encouraged by the format of the class which will rely on well-informed and thoughtful discussion in a seminar format.

We will also investigate these questions more theoretically in an effort to develop a solid understanding of what makes wisdom or judgment a crucial component of our lives. Throughout the course, we will be contrasting decision-making that depends on practical wisdom with decision making that depends on following various kind of rules or responding to external rewards and punishments.

This will be an interdisciplinary course with readings drawn from philosophy, ethics, literature, psychology, education, and sociology. Prior knowledge of these fields is not a prerequisite. We will frequently be joined by guests from other departments and from the Medical School.

MALS 700 - Responsible and Ethical Conduct of Research

Required course for all MALS graduate students. Generally consists of five two hour sessions as well as additional reading and preparation.

Mathematics - Graduate
Chair: Sergi Elizalde
Vice Chair: Marcia Groszek


To view Mathematics Graduate courses, click here.
To view Mathematics Undergraduate requirements, click here. (p. 497)
To view Mathematics Undergraduate courses, click here. (p. 503)

See the Department website for projected terms for future course offerings.

Please note that course meeting times and instructors are subject to change until the Timetable of Class Meetings for the specific term is published by the Registrar’s Office.

Introductory Courses

The Graduate Program in Mathematics
Dartmouth College offers programs of graduate study leading to the Ph.D. and A.M. degrees in mathematics. Normally, the A.M. program is the first step in the Ph.D. program. The Ph.D. program is designed to meet the need for mathematicians who are highly qualified in both teaching and scholarship. The College provides an environment in which a doctoral candidate can pursue professional study in mathematics and prepare to be an effective teacher.

Requirements for the Master’s Degree (A.M.)

In addition to the general College requirements for the master’s degree, the math department requirements for the A.M. in mathematics are as follows:

1. Satisfactory completion of three out of five pairs of core courses: (101, 111), (103, 113), (104, 114), (106, 116), (126, 136).[1]
2. Successful completion of the Advancement Examination at a Master's level.
3. Non-course requirements which parallel those of those continuing in the Ph.D. program. In particular, students must receive credit for Mathematics 107 once during each year while enrolled.

4. Completion of at least five terms in good standing. [2]

Note (1): Normally this requirement for the A.M. is completed in the first year. Study may be extended into the second year, only if approved. Syllabi for these ten courses are available from the Department of Mathematics.

Note (2): In addition to five terms in residence, students must obtain credit in fifteen courses of graduate quality with a limit of at most five replaced by approved research or special study.

Requirements for the Doctor’s Degree (Ph.D.)

The requirements for the Ph.D. degree in mathematics are as follows:

1. Successful completion of the A.M. degree (described above).

2. Successful completion of the Advancement Examination at the Ph.D. level.

3. Admission to Ph.D. candidacy by the departmental Graduate Program Committee as a result of its review, which takes place at the end of the spring term of the second year of graduate study. This review will take account of all the relevant information that the Graduate Program Committee can gather, such as the student’s record in courses and seminars, the student’s performance during the advancement process, and an estimate of the student’s ability to write an acceptable thesis.


5. Successful completion of the teaching seminar and teaching two courses in the three years after passing to candidacy. Preparation for the teaching seminar includes such activities as tutoring in the years before admission to candidacy. This requirement is met by receiving credit for Mathematics 107 once during each year preceding admission to candidacy, credit for Mathematics 147, and credit for Mathematics 149 twice during the three years following admission to candidacy.

MATH - Mathematics

MATH 700 - Responsible and Ethical Conduct of Research
Instructor: Sutton
Required course for all Mathematics graduate students. Generally consists of five two hour sessions as well as additional reading and preparation.

MATH 100 - Topics in Probability Theory

MATH 101 - Topics in Algebra
This course treats the subject of linear and multilinear algebra from an abstract point of view. Topics include bilinear forms, tensor products, algebras over a field, symmetric and exterior powers, and universal properties. Applications include the representation and character theory of finite groups.

MATH 102 - Topics in Geometry

MATH 103 - Metric spaces and measure theory
This course reviews the basic theory of metric spaces and their topology including continuity, completeness, connectedness, and compactness. An introduction to abstract measure theory follows, with topics including measurability, measures, integration, the construction of Lebesgue measure, as well as additional topics as time allows.

Cross-Listed as: MATH 073

MATH 104 - Differential Topology
This course is an introduction to differential topology. Topics include smooth manifolds, tangent and cotangent bundles, vector fields, Lie groups, differential forms, and integration, with additional topics covered at the instructor's discretion.

MATH 105 - Topics in Number Theory

MATH 106 - Stochastic Processes & Uncertainty Quantification
Annually, Winter term. Stochastic modeling and uncertainty quantification are central to the study of many problems in physics, engineering, finance, evolutionary biology and medicine. This course introduces theoretical concepts in probability theory and key methods for stochastic processes and uncertainty quantification. MATH 106 is an approved elective for the QBS Masters of Science degree in Health Data Science. The topics of this course will alternate between odd and even years. In even years, topics will include basic concepts of probability, generating functions, Markov chains, random walks, Markov and Non-Markov processes, and diffusion theory. Applications to the natural
sciences will be made. In odd years, the course will focus on data-driven methods, with applications in data science, machine learning, and numerical weather prediction. Topics will include statistical inference, random sampling, stochastic processes, polynomial chaos, and data assimilation. The course will also introduce standard computation libraries in MATLAB and Python.

MATH 107 - Supervised Tutoring
Tutoring or assisting with teaching under the supervision of a faculty member.

MATH 108 - Topics in Combinatorics

MATH 109 - Topics in Mathematical Logic

MATH 110 - Probability Theory
This course provides a second course in abstract algebra, involving the theory of rings and fields with the topic alternating between years. The study of fields begins with polynomial rings, finite and algebraic extensions of fields, and builds to the fundamental theorem of Galois theory, with applications. A course in commutative algebra includes an introduction to (commutative) rings, modules over rings, and the beginnings of algebraic geometry.

Cross-Listed as: MATH 081

MATH 111 - Abstract Algebra
This course provides a foundation in algebraic topology, including both homotopy theory and homology theory. Topics may include: the fundamental group, covering spaces, calculation of the fundamental group, singular homology theory, Eilenberg-Steenrod axioms, Mayer-Vietoris sequence, computations, applications to fixed points and vector fields.

Cross-Listed as: MATH 074

MATH 115 - Number Theory

MATH 116 - Numerical Analysis
Annually, winter term. Many mathematical models arising in various applications cannot be solved analytically. This course teaches fundamentals of numerical analysis, and focuses on how numerical algorithms are constructed and analyzed in terms of their accuracy, efficiency, stability, conditioning, and convergence properties. Students will use MATLAB to demonstrate the validity and/or failure of various approaches in different situations. MATH 116 is an approved elective for the QBS Masters of Science degree in Health Data Science.

The topics of the course will alternate between odd and even years. In odd years, the main focus will be on numerical linear algebra, and include the study of least squares methods, iterative methods for linear systems, eigenvalue problems. Other topics will include root finding methods and optimization. In even years, the focus will be on numerical ordinary and partial differential equations, including both linear and non-linear problems. Numerical interpolation, differentiation, integration, and approximation techniques will also be discussed as they pertain to solving differential equations.

MATH 118 - Combinatorics

MATH 119 - Mathematical Logic

MATH 120 - Current problems in Probability Theory

MATH 121 - Current problems in Algebra
MATH 122 - Topics in Analysis
MATH 123 - Current problems in Analysis

MATH 124 - Current problems in Topology

MATH 125 - Current problems in Number Theory
MATH 126 - Topics in Applied Mathematics II
Partial differential equations play critical roles in wide areas of mathematics, science, and engineering. This is an introductory course, accessible to undergraduate and graduate students in mathematics and other scientific disciplines who have completed the prerequisites. Examples will come from both linear and non-linear partial differential equations, including the wave equation, diffusion, boundary value problems, conservation laws, and the Monge-Ampere equations.

Cross-Listed as: Math 53

MATH 127 - Reading Course
Advanced graduate students may elect a program of supervised reading continuing the topics of their course work.

MATH 128 - Current problems in Combinatorics
MATH 129 - Current problems in Mathematical Logic

MATH 136 - Applied Mathematics II
Develops tools to analyze phenomena in the physical and life sciences, from cell aggregation to vibrating drums to traffic jams. Focus is on applied linear and nonlinear partial differential equations: methods for Laplace, heat and wave equations (Fourier transform, Green's functions, eigenfunction expansions), Burger's and reaction-diffusion equation.

Further topics may include linear and integral operators, nonlinear optimization, linear programming, asymptotics, boundary layers, or inverse problems. Students will develop numerical skills with a package like MATLAB/Octave.

MATH 137 - Independent Reading
Advanced graduate students may, with the approval of the advisor to graduate students, engage in an independent reading program.

MATH 146 - Current Problems in Applied Mathematics

MATH 147 - Teaching Seminar
Instructor: Trout, Kobayashi
A seminar to help prepare graduate students for teaching. (This course does not count toward the general College requirements for the master's degree.)

MATH 148 - Independent Project
A graduate student may, with the approval of the advisor to graduate students, engage in an independent study project. Groups of graduate students may, for example, prepare joint work including reading and informal seminars aimed at mastering a certain topic.

MATH 149 - Supervised Teaching
Teaching under the supervision of a faculty member.

MATH 150 - Graduate Subject Seminar

MATH 156 - Graduate Research
Research under the guidance of a staff member.

MATH 157 - Thesis Research
Research under the guidance of the student's thesis advisor. Open to candidates for the Ph.D. degree.

MATH 158 - Independent Research
Advanced graduate students may, with the approval of the advisor to graduate students, engage in an independent research project.

MATH 177 - Methods of Statistical Learning for Big Data
Instructor: Jiang Gui and Eugene Demedenko
This course provides an introduction to algorithms used in data science with applications to biomedical and health data science. The goal of this course is to present an overview of many of the approaches used for big data focusing on analytical methods and algorithms. The course assumes that students have some knowledge of R. Students will be provided with 2 large data sets. Lectures on data reduction, classification, and optimization will request students complete homework for these datasets. Special attention will be given to students’ active learning by programming in a statistical software package R.
Prerequisite: QBS 149, QBS 120 and QBS 121 or instructor permission. Basic proficiency in R
Cross-Listed as: QBS 177
Microbiology and Immunology

Chair: David Leib

Professors J. Bliska (Microbiology and Immunology), D. J. Bzik (Microbiology and Immunology), A. Cheung (Microbiology and Immunology), R. A. Cramer (Microbiology and Immunology), R. I. Enelow (Medicine, and Microbiology and Immunology), S. N. Fiering (Microbiology and Immunology), D. A. Hogan (Microbiology and Immunology), D. A. Leib (Microbiology and Immunology), R. J. Noelle (Microbiology and Immunology), G. A. O'Toole (Microbiology and Immunology), W. R. Rigby (Microbiology and Immunology), R. Sarpeshkar (Engineering, and Microbiology and Immunology), C. L. Sentman, (Microbiology and Immunology), B. A. Stanton (Microbiology and Immunology), M. J. Turk (Microbiology and Immunology), E. J. Usherwood (Microbiology and Immunology), M. E. Zegans (Surgery, and Microbiology and Immunology); Professor Emeritus W. R. Green (Microbiology and Immunology), P. M. Guyre (Microbiology and Immunology), N. J. Jacobs (Microbiology and Immunology) C. R. Wira (Microbiology and Immunology); Associate Professors M. E. Ackerman (Engineering Sciences, and Microbiology and Immunology), A. Ashare (Medicine, and Microbiology and Immunology), Y. H. Huang (Microbiology and Immunology, and Pathology and Laboratory Medicine), C. V. Jakubzick (Microbiology and Immunology), D. Mullins (Medical Education, and Microbiology and Immunology), J. Obar (Microbiology and Immunology), P. A. Pioli (Microbiology and Immunology); Assistant Professors P. Rosato (Microbiology and Immunology), B. Ross (Microbiology and Immunology), D. Schultz (Microbiology and Immunology).

To view Microbiology and Immunology courses, click here.

The Ph.D. in Microbiology and Immunology is administered by the Microbiology and Immunology Department of Dartmouth Medical School.

To qualify for award of the Ph.D. degree, a student must fulfill the following requirements:

1. Satisfactory completion of a year-long graduate-level sequence in biochemistry, cellular and molecular biology; a one-term teaching assignment; and a three-term course in laboratory biochemistry. The last will consist of three small research projects, conducted in rotation with different faculty members for periods of about three months each.
2. Satisfactory completion of three other graduate-level courses in microbiology and immunology or related disciplines.
3. Satisfactory completion of an approved ethics course.
4. Attendance at the weekly seminar series of the Program.
5. Participation in a journal club during fall, winter and spring terms every year and in the weekly Research in Progress series.
6. Satisfactory completion of a written and oral qualifying examination.
7. Satisfactory completion of a significant research project and preparation of a thesis acceptable to the thesis advisory committee.
8. Successful defense of the thesis in an oral examination and presentation of the work in a lecture.

The courses listed below are primarily designed for graduate students. The student should decide, in consultation with his/her committee and course instructors, whether his/her background is appropriate for the content of the course.

**FIRST-YEAR CORE COURSES**

First-Year students must take the following courses:

**Microbiology and Immunology**

**MICR 700 - Responsible and Ethical Conduct of Research**

Instructor: Huang

Required course for all first-year Molecular and Cellular Biology graduate students. Generally consists of five two hour sessions as well as additional reading and preparation. This course seeks to coordinate basic training in professional ethics required of all Dartmouth graduate students with ethical training in the biomedical sciences required for NIH-sponsored research. A basic training program that addresses ethical issues related to professionalism, authorship, mentoring, and data collection has been developed by the Guarini School of Graduate and Advanced Studies in collaboration with the Ethics Institute at Dartmouth. In these sessions, graduate training faculty chosen from each of the foundational science departments on a rotating basis will meet with small groups of first-year graduate students and postdoctoral fellows to facilitate discussions on ethical dilemmas they may encounter in their scientific careers. During each two hour session, students will have the opportunity to become actively engaged in discussions about responsibilities to their profession and society at large as they embark on their training in research and discovery. Case studies will be used to provide a framework for discussions on ethical issues occurring in scientific research. The course sessions will cover topics related to NIH-sponsored research.
including ethical use of research subjects, intellectual property and scientific rigor.

$name

**MICR 105 - Spring MCB Core Course Modules**

The final term of a year-long graduate-level course in biochemistry, cell and molecular biology, a continuation of BIOC 101 and BIOL 103. These special-topics mini-courses provide more in-depth information about specific areas in biochemistry, cell and molecular biology. Each first-year MCB student must enroll in three sequential modules. Module topics offered each year will vary. Students should contact Janet Cheney for current list of spring-term modules and descriptions.

**MICR 106 - Spring MCB Core Course Modules**

The final term of a year-long graduate-level course in biochemistry, cell and molecular biology, a continuation of BIOC 101 and BIOL 103. These special-topics mini-courses provide more in-depth information about specific areas in biochemistry, cell and molecular biology. Each first-year MCB student must enroll in three sequential modules. Module topics offered each year will vary. Students should contact Janet Cheney for current list of spring-term modules and descriptions.

Pathology and the Analysis of Disease – Spring Core Course This module is designed to educate students and trainees on distinguishing healthy and diseased states from an anatomical molecular pathology and laboratory medicine perspective. The course will include a combination of didactic lectures, laboratory analyses and group discussions that are led by basic and clinical faculty members. Efforts will be made to involve students in current or recent cases at DHMC once students are HIPAA certified. A graded written case presentation will be required on a topic related to one of the session. Individuals will choose a topic and then be paired with a faculty member for selection and preparation of a case.

**MICR 107 - Spring MCB Core Course Modules**

Instructor: Daniel Schultz

The final term of a year-long graduate-level course in biochemistry, cell and molecular biology, a continuation of BIOC 101 and BIOL 103. These special-topics mini-courses provide more in-depth information about specific areas in biochemistry, cell and molecular biology. Each first-year MCB student must enroll in three sequential modules. Module topics offered each year will vary. Students should contact Janet Cheney for current list of spring-term modules and descriptions.

This course provides an introduction to key concepts in systems biology, with an emphasis on the modeling of genetic networks and evolutionary processes. We will describe our current understanding on how the vast network of biochemical interactions in a cell works together to perform cellular functions. The aim of the mathematical models studied in this class is not to precisely reproduce experimental data, but rather to allow intuitive understanding of general principles.

We will start by studying the regulation of gene expression, and how transcription networks in the cell are organized using recurring motifs. We will analyze the function and stability of these network motifs, and show how they can be used to build different synthetic circuits. We will then study the evolution of optimized network designs. We will see how cells tune their gene expression levels in response to new selective pressures; we will analyze how beneficial mutations are fixed in a cell population; and we will determine the possible paths of adaptation of an organism towards a new optimum.

Prerequisite: We aim to introduce the students to the mathematical formulation necessary to understand the biological problems we will discuss. Some background in calculus and programming is helpful, but not required. Part of our goal is to expose those with little quantitative background to some of the interesting theories that have shaped the field of systems biology. Given the wide range of backgrounds among students in this class we will try to avoid unnecessary jargon.

109 - Spring MCB Core Course Modules

Instructor: Benjamin Ross

**Course description**

This course provides an overview of the bacterial communities that associate with the human body, with a focus on the intestinal microbiome. We will discuss common methods and experimental approaches used to interrogate human microbiomes, exploring how these approaches have evolved from the pre to post genomic era and dive into common pitfalls. We will also discuss functional properties of human associated microbiomes as well as current thinking as to the mechanisms that underlie microbiome assembly and stability. Finally, we will cover cutting-edge efforts to alter or manipulate microbiomes as therapies to treat human disease.

**Prerequisites**

None although a familiarity with microbiological or immunological background material would be beneficial

**Reading material**

The source material for this course will be primary research literature and review articles.

**Grading**

The course grade will be based on two short answer quizzes (one after each of the first two weeks), and a 1-page mock proposal (due the week after the last class). Proposal topic: propose a probiotic-based therapeutic for a
microbiome-relevant disease. What are some challenges and considerations? What bacterium would you use? What would it do? Be creative! Required: cite appropriate literature.

Prerequisite: None although a familiarity with microbiological or immunological background material would be beneficial

**MICR 108 - Spring MCB Core Course Modules**

Instructor: David Leib

The final term of a year-long graduate-level course in biochemistry, cell and molecular biology, a continuation of BIOC 101 and BIOL 103. These special-topics mini-courses provide more in-depth information about specific areas in biochemistry, cell and molecular biology. Each first-year MCB student must enroll in three sequential modules. Module topics offered each year will vary. Students should contact Janet Cheney for current list of spring-term modules and descriptions.

**Overview**

This three-week class will cover basic aspects of virology in a largely didactic fashion for 2/3 sessions per week. The final session of each week will feature a student-driven presentation and discussion of a “classic” paper in virology with an emphasis on the developments in the field of virology and beyond that stemmed from the work.

**Proposed topics**

**Week 1:** Basic virus structure and replication strategies, how to assay and culture viruses, how to genetically manipulate them, how they may be used in research and therapeutics. Cellular responses to virus infection will be covered, to include innate antiviral responses, apoptosis, and transformation. Classic paper presentation on Friday.

**Week 2:** RNA viruses, with special emphasis on medically important viruses (e.g. polio, influenza, retroviruses), their history, epidemiology, replication cycle, pathogenesis and genetics. Classic paper presentation on Friday.

**Week 3:** DNA viruses, with special emphasis on medically important viruses which have importance as incurable pathogens (e.g. herpes viruses), importance historically (smallpox), or for our understanding cancer (DNA tumor viruses). Emphasis will be placed on their history, epidemiology, replication cycle, pathogenesis, and genetics. Classic paper presentation on Friday.

**MICR 128 - Enterprise Experience Internship**

Instructor: Yina Huang

This course provides practical training experience through a full-time internship at an institution outside of the Dartmouth College campuses (Lebanon and Hanover). The goal of this course is to provide students with real-world, hands-on experience with existing enterprises through internship during graduate school. Such experience will expose students to diverse career opportunities during graduate school, providing students with lead-time to focus and network in a field of interest prior to completion of their PhD. Multiple types of training (e.g., project management and business entrepreneurship skills needed in the pharmaceutical and biotechnology industries, teaching experience needed for a successful faculty position in liberal arts colleges) will be particularly valuable for students who go on to conduct NIH-funded research as well as benefit those students who do not follow the academic research career track. Approximately 30% of biomedical PhDs work in the biotech and pharmaceutical industries in research and non-research positions.

Examples of potential internship opportunities are:

- Researcher in a biotechnology or pharmaceutical company
- Business and marketing associate in a biotechnology or pharmaceutical company
- Teacher/lecturer at an institution of higher education/college
- Assistant at a patent law firm
- Position in office of government policy and legislation
- Position in office of public health policy

For this course, the student will propose and arrange a paid or unpaid internship in an existing enterprise (industry, government, or other) in consultation with their Thesis Advisor (primary mentor), Advisory Committee, and MCB Graduate Committee prior to enrollment. This process should happen in advance of the term of enrollment. Course enrollment is concurrent with the internship and should be for a period of one term. At the end of the internship, the student will make an oral presentation (with Powerpoint slides; approx. 20 minutes) to the MCB community that addresses the nature of the enterprise they were engaged in, the problem they were assigned, and the results and impact of their project. The purpose of the presentation is to share lessons learned from the internship experience with the MCB community. The presentation will be accompanied by a short but complete written report. Neither the presentation nor report should contain confidential information of the enterprise.

The Internship Proposal Form must be completed prior to committing to an internship, and must be signed by the student’s Thesis Advisor and the Course Director. A letter from the Internship Supervisor at the proposed host enterprise must be sent to the Thesis Advisor and Course Director detailing the start/end dates of the internship, and the job function and roles of the intern.
Prerequisite: Must have completed all MCB Program and course requirements prior to enrolling. Senior students in their fourth year or beyond who are still conducting their research and are at least 6 months away from thesis defense will be eligible. Must have prior approval of Thesis Advisor, Advisory Committee and MCB Graduate Committee for internship.

This course is graded on a credit/no credit basis by the Course Director after completion of the written report and oral presentation. International students with visa sponsorship should consult with the Office of Visa and Immigration Services (OVIS) regarding eligibility, and review the appended information on F-1 Curricular Practical Training.

Financial matters:

The internship may be paid or unpaid by the host enterprise or by Dartmouth stipend, depending on arrangement with their Thesis Advisor (as in cases where the internship is a collaboration that will benefit the Advisor’s research), but the total student/intern salary cannot exceed the amount that student would have otherwise received as Dartmouth stipend. Internship at another academic institution to perform research is discouraged; the goal of this internship program is to expose students to career environments not found within Dartmouth. The Thesis Advisor cannot serve as or appoint the Internship Supervisor (such as in cases where the proposed internship would be hosted by a local company in which the Thesis Advisor has a stake/role).

Dartmouth-based health insurance benefits will be paid by the student’s Thesis Advisor for the term.

Prerequisite: Permission of the instructor

MICR 142 - Advanced Cellular and Molecular Immunology
Instructor: Jakubzick and associates
This course's overall objective is to provide you with a comprehensive view of the Immune System in Health and Disease. This course covers the following topics: Allergy and Hypersensitivities, Chronic Inflammation and Tolerance, Autoimmunity, Transplantation, Infectious Diseases, Vaccines, Immunodeficiency Diseases, Cancer Immunology, Neuroimmunology, and Basic Immunology Techniques. In addition to lectures, students will review a recent research article on the week's topic.

Prerequisite: BIOC 102 or an equivalent, or permission of the instructor

MICR 144 - Cellular and Molecular Basis of Immunity
Instructor: Sentman and associates
This course will cover the biology and clinical aspects of the immune response. Students will use textbooks, review articles, and case studies to obtain an up-to-date understanding of how the immune system functions in health and disease. This course will combine didactic lectures, group learning and discussion. This course is designed to be a graduate level course that builds upon a basic introductory immunology course. The MCB Core course, an undergraduate immunology course, or a medical immunology course is a prerequisite, so the faculty will assume that all students have a basic understanding of how the immune response functions and the vocabulary of immunology. This course will explore topics in more depth, emerging research areas, and cover topics not typically covered in a basic immunology course.

Prerequisite: A prior immunology course: BIOC 102, BIOL 046, or permission of instructor.

MICR 145 - Human Genetics
Instructor: Fiering
This course will consider the structure, organization and function of the human genome, with an emphasis on how human genetics will develop now that the genome of humans and many other organisms have been sequenced. The mouse and other model organisms will also be discussed in regard to how they may genetically differ or be similar to humans. The course will have two sessions a week (110 minute sessions). Each session will cover a specific topic and for most sessions the topic will be presented by one of the students enrolled in the course.

Prerequisite: Permission of the instructor

Cross-Listed as: GENE 145

MICR 146 - Immunotherapy and the development of contemporary biologies for the treatment of human disease.
Instructor: Drs. Noelle, Rothstein and associates
This course will consider both basic scientific and therapeutic aspects of three important areas of immunology: immune tolerance, tumor immunology, and autoimmunity. The tolerance module will consider current tolerance strategies and new advances in the field. The tumor immunology module will consider contemporary approaches to eliciting host responses to tumor. Autoimmunity will be discussed to describe basic mechanisms behind the disease and what can be done to modulate the immune response to prevent or treat such diseases. Finally, technical, practical and commercial development of novel biologics for human clinical trials will also be considered. Sessions will consist of a faculty-lead discussion of the primary literature relating to each
topic, interspersed with student lead presentations on selected areas. The students will write a 10 page dissertation on a theme related to one of the modules. Students should inform Dr. Noelle and/or Dr. Rothstein of their first and second choices before the start of the course. The dissertations will be due two weeks after the end of the ovule on which the dissertation is based.

Prerequisite: A previous immunology course and/or permission of an instructor

MICR 148 - Advanced Molecular Pathogenesis
Instructor: Bzik, Cheung, and associates

An advanced course in molecular pathogenesis with emphasis on genetic aspects of host-microbe interactions and modern model genetic systems for the study of important human pathogens. Each session will begin with a 50- to 80-minute lecture pertaining to the topic area and will be followed by a 1.5- to 2-hour discussion of current papers (assigned reading) pertaining to the topic area. Discussion of the assigned reading for a particular session centers around a set of questions developed by the student presenter in collaboration with the instructor and based upon a short written report that the student has prepared on the topic.

Prerequisite: permission of the instructor

MICR 149 - Microbial Physiology and Metabolism
Instructor: O'Toole and Hogan

This course focuses on central concepts of bacterial physiology and metabolism in the context of diverse microbial interactions. We focus on a range of strategies that bacteria use to make energy, and general concepts related to nutrient acquisition and utilization, motility, and survival. This course will consist of lecture overviews of metabolism and bacterial phylogeny combined with student-presented lectures on an assigned topic. One paper is discussed each class period on the same topic.

Prerequisite: permission of the instructor

MICR 167 - The Biology of Fungi and Parasites that Cause Disease
Instructor: Robert Cramer, Jr.

This course will focus on the molecular features of fungi that form the basis of strategies for pathogenesis and virulence. The increasing use of immune modulating therapies coupled with global climate changes has increased the incidence of both human, plant and other animal fungal infections. The difficulties associated with development of drugs that neutralize fungi but do not harm host cells, heighten the importance of research on fungi and emphasize the unique aspects of eukaryotic pathogens compared to bacteria. The course format will include didactic lectures and active learning exercises to define fundamental and emerging concepts around fungal pathogenesis and virulence.

Prerequisite: Senior undergraduate with permission of the instructor

MICR 197 - Graduate Research in Microbiology & Immunology: Pre-Qual I

An original individual experimental or theoretical investigation beyond the undergraduate level in Microbiology and Immunology. This course is open only to graduate students, prior to passing their qualifying exam; it may be elected for credit more than once. This course carries one course credit and should be elected by students conducting research and also electing two or more other graduate or undergraduate courses. Staff of the Program.

MICR 198 - Graduate Research in Microbiology & Immunology: Pre-Qual II

An original individual experimental or theoretical investigation beyond the undergraduate level in Microbiology and Immunology. This course is open only to graduate students, prior to passing their qualifying exam; it may be elected for credit more than once. This course carries two course credits and should be elected by students electing only departmental colloquia in addition to research. Staff of the Program.

MICR 199 - Graduate Research in Microbiology & Immunology: Pre-Qual III

An original individual experimental or theoretical investigation beyond the undergraduate level in Microbiology and Immunology. This course is open only to graduate students, prior to passing their qualifying exam; it may be elected for credit more than once. This course carries three course credits and should be elected by students conducting research exclusively in any one term. Staff of the Program.

MICR 295 - Independent Study Course

This is an independent study course for a student who has an opportunity for relevant training via an unpaid internship or other unpaid learning outside of Dartmouth's curricular offerings. The training must be for a set period of time with stipend support from the student's Dartmouth research advisor. This outside experience must be deemed beneficial to the student's research work and be pre-approved by the research advisor, program chair, MCB chair, and Graduate Studies Office.

Prerequisite: Permission of Advisor, program chair, MCB chair, and Graduate Studies Office.
MICR 297 - Graduate Research in Microbiology & Immunology: Post-Qual I

An original individual experimental or theoretical investigation beyond the undergraduate level in Microbiology and Immunology. This course is open only to graduate students, subsequent to passing their qualifying exam; it may be elected for credit more than once. This course carries one course credit and should be elected by students conducting research and also electing two or more other graduate or undergraduate courses. Mentor from the Program.

MICR 298 - Graduate Research in Microbiology & Immunology: Post-Qual II

An original individual experimental or theoretical investigation beyond the undergraduate level in Microbiology and Immunology. This course is open only to graduate students, subsequent to passing their qualifying exam; it may be elected for credit more than once. This course carries two course credits and should be elected by students electing only departmental colloquia in addition to research. Mentor from the Program.

MICR 299 - Graduate Research in Microbiology & Immunology: Post-Qual III

An original individual experimental or theoretical investigation beyond the undergraduate level in Microbiology and Immunology. This course is open only to graduate students, subsequent to passing their qualifying exam; it may be elected for credit more than once. This course carries three course credits and should be elected by students conducting research exclusively in any one term. Mentor from the Program.

MICR 264 and 265 - Microbiology and Immunology - Graduate Research Colloquium

All students must take a journal club/RIP course during each term of residence, except summer. An essential element of scientific training is in the critical analysis and communication of experimental research in an oral format. Evaluation will be based on quality of the work described, quality of critical analysis, and on presentation style, including effective use of audio-visual materials. All students will be required to participate in at least one Journal Club/Research in Progress series. Although minor variations in format exist among the several series, all students will make oral presentations that describe work from the current literature. Normally these series meet every other week for two hours. This course is not open to undergraduates.

Journal Club topics available for students to select and enroll in are:

MICR 264 Immunology
MICR 265 Molecular Pathogenesis

Molecular and Systems Biology - Graduate

Chair: Marnie E. Halpern

Professors Y. Ahmed (Molecular and Systems Biology), G. Bosco (Molecular and Systems Biology), M. D. Cole (Pharmacology and Molecular and Systems Biology), J. C. Dunlap (Molecular and Systems Biology and Biochemistry and Cell Biology), S.N. Fiering (Microbiology and Immunology and Molecular and Systems Biology), S. Gerber (Molecular and Systems Biology and Biochemistry and Cell Biology), Marnie E. Halpern (Molecular and Systems Biology), J. J. Loros (Biochemistry and Cell Biology and Molecular and Systems Biology), M.L. Whitfield (Biomedical Data Science and Molecular and Systems Biology), H. Yeh (Molecular and Systems Biology and Neurobiology); Associate Professors A. Gulledge (Molecular and Systems Biology), B. Luikart (Molecular and Systems Biology), Y. Sanchez (Molecular and Systems Biology); Assistant Professors D. Pattabiraman (Molecular and Systems Biology), X. Wang (Molecular and Systems Biology).

The Ph.D. in Molecular and Systems Biology is administered by the Molecular and Systems Biology Department of Geisel School of Medicine. The courses listed below are primarily designed for graduate students. The student should decide, in consultation with his/her committee and course instructors, whether his/her background is appropriate for the content of the course.

To view Molecular and Systems Biology courses, click here (p. 800).

Requirements for the Doctor’s Degree (Ph.D.)

To qualify for award of the Ph.D. degree, a student must fulfill the following requirements:

1. Satisfactory completion of a year-long graduate-level sequence in biochemistry, cellular and molecular biology; a one-term teaching assignment; and a three-term course in laboratory genetics. The last will consist of three small research projects, conducted in rotation with different faculty members for periods of about three months each.
2. Satisfactory completion of three other graduate-level courses in genetics or related disciplines.
3. Satisfactory completion of an approved ethics course.
4. Attendance at the seminar series of the Program.
5. Participation in a journal club during fall, winter and spring terms every year and in the weekly Research in Progress series.
6. Satisfactory completion of a written and oral qualifying examination.

7. Satisfactory completion of a significant research project and preparation of a thesis acceptable to the thesis advisory committee.

8. Successful defense of the thesis in an oral examination and presentation of the work in a lecture.

For further information, see the Graduate Study Catalog.

Molecular and Systems Biology

**GENE 100 - Molecular and Cellular Biology PhD Qualifying Examination Course**

Instructor: Y. Huang

Each student enrolled in the MCB Graduate Program must pass a qualifying examination (QE) to be formally admitted to candidacy for the Ph.D. degree. This exam has three components: a dissertation proposal, a mock research idea, and an oral exam that uses the written proposal as its focus. The evaluation of the qualifying exam components is conducted by the Qualifying Examination (QE) Committee established by the student and thesis advisor. Students are required to enroll in the QE Course for Summer term to receive a grade for successfully completing the QE. Students will be required to meet three deadlines in order to receive a "P" grade. This course is mandatory for all MCB students in the process of completing their qualifying exam.

**GENE 102 - Molecular Information in Biological Systems**

Together with Biochemistry 101, this course constitutes the first term of a year-long graduate-level sequence in biochemistry, cell and molecular biology. The central theme of the course is the storage, retrieval, modification, and inheritance of biological information, as encoded in the molecular organization of proteins and nucleic acids. Topics include the principles of macromolecular interactions; the structure and function of proteins and nucleic acids; the machineries of transcription, translation, and replication; principles of genetics, genomics, and proteomics; and the control and evolution of biological systems. Note that this course must be taken concurrently with Biochemistry 101 and that students will need to enroll in both courses to complete the Molecular and Cellular Biology Graduate Program requirements for fall term. Not open to undergraduate students.

Prerequisite: BIOC 101 or permission of the instructor. Not open to undergraduate students. Three lectures per week

Corequisite: BIOC 101 or permission of the instructor. Not open to undergraduate students. Three lectures per week

**GENE 108 - Genetic Manipulation and Application to Neurobiology**

The final term of a year-long graduate level course in biochemistry, cell and molecular biology, a continuation of BIOC 101, BIOL 103 and MICRO 104. These special-topics mini-courses provide more in-depth information about specific areas in biochemistry, cell and molecular biology. Each first-year MCB student must enroll in three sequential modules. Module topics offered each year will vary. Students should contact Janet Cheney for current list of spring-term modules and descriptions.

Prerequisite: Biochemistry 101, Biology 103 and Microbiology 104.

**GENE 109 - Spring MCB Course Module**

The final term of a year-long graduate level course in biochemistry, cell and molecular biology, a continuation of BIOC 101, GENE 102, BIOL 103 and MICRO 104. These special-topics mini-courses provide more in-depth information about specific areas in biochemistry, cell and molecular biology. Each first-year MCB student must enroll in three sequential modules. Module topics offered each year will vary. Students should contact Janet Cheney for current list of spring-term modules and descriptions.

**GENE 145 - Human Genetics**

This course will consider the structure, organization and function of the human genome, with an emphasis on how human genetics will develop now that the genome of humans and many other organisms have been sequenced. The mouse and other model organisms will also be discussed in regard to how they may genetically differ or be similar to humans. The course will meet for two 90 minutes sessions per week. Each session will cover a specific topic and for most sessions the topic will be presented by one of the students enrolled in the course.

Prerequisite: permission of the instructor

Cross-Listed as: MICR 145

**GENE 146 - Molecular and Computational Genomics**

Instructor: Whitfield

The sequencing of the complete genomes of many organisms is transforming biology into an information science. This means the modern biologist must possess both molecular and computational skills to adequately mine this data for biological insights. Taught mainly from the primary literature, topics will include genome sequencing and annotation, genome variation, gene mapping, gene expression and functional genomics, proteomics and systems biology. The course will meet for 3 hours per week.
GENE 148 - Biological Mass Spectrometry and Proteomics
Instructor: Gerber

Mass spectrometry (MS) has become a cornerstone technology for scientists engaged in a wide array of modern biomedical research, from addressing hypotheses in cell biology and biochemistry to the broadscale analysis of proteins and proteomes. Proteomics itself, driven largely by the qualitative and quantitative power of mass spectrometry, represents an exciting new field of research with great potential in answering basic and translational questions that challenge the modern scientist today, and for the foreseeable future. This class will be taught through a combination of interactive lectures, journal paper discussion sessions, and a lab in which students get hands-on experience identifying proteins from gel bands by LC-MS/MS.

Prerequisite: permission of the instructor

GENE 260 - Biological Rythms
Instructor: Dunlap

All graduate students are required to enroll in Graduate Research Colloquium during each term of residence, except summer. An essential element of scientific training is in the critical analysis and communication of experimental research in an oral format. Evaluation will be based on quality of the work described, quality of critical analysis, and on presentation style, including effective use of audio-visual materials. All students will be required to participate in at least one Journal Club/Research in Progress series. All students will make oral presentations that describe work from the current literature. This course will meet for a 1-hour discussion once per week. Not open to undergraduates.

GENE 261 - Cancer Biology
Instructor: Cole

All graduate students are required to enroll in Graduate Research Colloquium during each term of residence, except summer. An essential element of scientific training is in the critical analysis and communication of experimental research in an oral format. Evaluation will be based on quality of the work described, quality of critical analysis, and on presentation style, including effective use of audio-visual materials. All students will be required to participate in at least one Journal Club/Research in Progress series. All students will make oral presentations that describe work from the current literature. This course will meet for a 1-hour discussion once per week. Not open to undergraduates.

GENE 271 - Graduate Research Colloquium: Chromatin Structure
All graduate students are required to enroll in Graduate Research Colloquium during each term of residence, except summer. An essential element of scientific training is in the critical analysis and communication of experimental research in an oral format. Evaluation will be based on quality of the work described, quality of critical analysis, and on presentation style, including effective use of audio-visual materials. All students will be required to participate in at least one Journal Club/Research in Progress series. All students will make oral presentations that describe work from the current literature. This course will meet for a 1-hour discussion once per week. Not open to undergraduates.

GENE 297 - Graduate Research in Genetics A
An original individual, experimental, or theoretical investigation beyond the undergraduate level in genetics. This course is open only to graduate students, subsequent to passing their qualifying exam; it may be elected for credit more than once. This course carries one course credit.
and should be elected by students conducting research and also electing two or more other graduate or undergraduate courses. Dunlap and the staff of the Program.

**GENE 298 - Graduate Research in Genetics B**

An original individual, experimental, or theoretical investigation beyond the undergraduate level in genetics. This course is open only to graduate students, subsequent to passing their qualifying exam; it may be elected for credit more than once. This course carries two course credits and should be elected by students electing only departmental colloquia in addition to research. Dunlap and the staff of the Program.

**GENE 299 - Graduate Research in Genetics C**

An original individual, experimental, or theoretical investigation beyond the undergraduate level in genetics. This course is open only to graduate students, subsequent to passing their qualifying exam; it may be elected for credit more than once. This course carries three course credits and should be elected by students conducting research exclusively in any one term. Dunlap and the staff of the Program.

**Physics and Astronomy - Graduate**

Chair: Kristina A. Lynch


To view Astronomy Graduate courses, click here. (p. 803)

To view Physics Graduate courses, click here. (p. 804)

**To view Physics and Astronomy Undergraduate requirements, click here.** (p. 581)

To view Astronomy Undergraduate courses, click here. (p. 584)

To view Physics Undergraduate courses, click here. (p. 586)

**Courses for Graduate Credit**

Physics and astronomy courses offered for graduate credit are those numbered 061 or higher. The Department of Physics and Astronomy will allow graduate credit for any course offered by the Departments of Biochemistry, Biological Sciences, Chemistry, Earth Sciences, Engineering Sciences, or Mathematics that receives graduate credit from that department.

**Requirements for the Master’s Degree (M.S.)**

The general requirements for the master’s degree are given in the Graduate Study section of this catalog. These requirements, together with the specific requirements of the Department of Physics and Astronomy indicated below, normally allow completion of the degree in two years. It is expected that graduate students who have not completed the equivalent of the Dartmouth physics major program will do so in their first year of graduate study.

Physics students:

1. Degree credit for eight graduate courses, exclusive of teaching courses. Two of the eight courses may be Graduate Research. At least six of the eight courses should be in physics and astronomy.

2. Credit for at least one term of Supervised Undergraduate Teaching (PHYS 257).

3. Completion of a culminating experience chosen from the following options:
   a. Completion of a satisfactory thesis, which must be defended before the M.S. Thesis Committee in a public forum.
   b. Significant co-authorship of a publication submitted to a refereed journal or refereed conference proceedings, defended publicly.
   c. Passing the qualifying requirement.

Astronomy students:

1. Degree credit for eight graduate courses, exclusive of teaching courses. Two of the eight courses may be Graduate Research. At least six of the eight courses should be in physics and astronomy.

2. Credit for at least one term of Supervised Undergraduate Teaching (PHYS 257).

3. Completion of a culminating experience chosen from the following options:
   a. Completion of a satisfactory thesis, which must be defended before the M.S. Thesis Committee in a public forum.
   b. Significant co-authorship of a publication submitted to a refereed journal or refereed conference proceedings, defended publicly.

**Requirements for the Doctor’s Degree (Ph.D.)**

A student will be admitted to Ph.D. candidacy upon:
Physics students:

1. Receiving credit for six out of the following nine core courses: PHYS 76, PHYS 90 [formerly 91], PHYS 100, PHYS 101, PHYS 103-106, PHYS 109.
2. Passing the qualifying requirement.
4. Passing a departmental review of the student’s course record and preliminary research progress.
5. Receiving credit for at least two terms of Supervised Undergraduate Teaching (PHYS 257) and PHYS 256.

Students must achieve thesis proposal certification by the end of the fall term of their fourth year, in order to remain in good standing. Students who successfully complete these requirements will be admitted to Ph.D. candidacy by the Department.

Astronomy students:

1. Receiving credit for ASTR 74, ASTR 115, ASTR 116, ASTR 117, ASTR 118 and any one physics course numbered 61 or above, and any other courses required by the student's advisory committee. Receiving credit for at least six terms of graduate research.
2. Passing a research exam at the end of their first and second years.
4. Passing a departmental review of the student’s course record and preliminary research progress.
5. Receiving credit for at least two terms of Supervised Undergraduate Teaching (PHYS 257) and PHYS 256.

Students must achieve thesis proposal certification by the end of the fall term of their fourth year, in order to remain in good standing. Students who successfully complete these requirements will be admitted to Ph.D. candidacy by the Department.

The candidate will receive the Ph.D. degree upon

1. Receiving degree credit for at least twelve graduate courses, exclusive of teaching courses. Physics students: Two of the twelve courses may be Graduate Research, and at least two terms of Graduate Research must be completed no later than the second summer in residence. Astronomy students: Six of the twelve courses may be Graduate Research, and at least six terms of Graduate Research must be completed no later than the second summer in residence.
2. Receiving credit for at least two terms of Supervised Undergraduate Teaching (PHYS 257) and PHYS 256.

It is expected that most students will receive the Ph.D. degree by the end of the fifth year of graduate study.

ASTR - Astronomy Graduate Courses

ASTR 115 - Advanced Stellar Astrophysics
A study of the physical processes in stellar interiors, stellar evolution, and nucleosynthesis. Topics to be covered include big bang nucleosynthesis, the equations of stellar structure, equations of state, opacities, nuclear reactions, energy transport in stars, polytrope models, stellar models, the evolution of stars, and supernovae, white dwarfs and neutron stars.

Prerequisite: Permission of the instructor.

ASTR 116 - Galactic Systems
The structure of galaxies and the dynamics of stellar systems. Topics include application of the Boltzmann transport equation to stellar systems, star cluster models, spiral structure, stellar populations, and the classification of galaxies. Active galaxies and their physical processes.

Prerequisite: Permission of the instructor.

ASTR 117 - Observational Galactic Astrophysics

Instructor: Staff
A survey of the astrophysics of different phenomena in the Milky Way. Topics may include exoplanets, galactic structure and dynamics, galactic chemical populations, stellar remnants, and the formation of stars and planets.

Prerequisite: ASTR 074, or permission of the instructor

ASTR 118 - Observational Cosmology

Instructor: Staff
The observational determination of the structure of the universe. Determination of the astronomical distance scale, Hubble's law, and measurements of the space distribution and peculiar motions of galaxies. Statistical treatment of the data. Quasars and gravitational lenses, nucleosynthesis and the cosmic microwave background. Comparison with cosmological models and theories of galaxy formation.

Prerequisite: ASTR 074, or permission of the instructor
**ASTR 122 - Special Topics**
Advanced treatment of topics in astronomy.

**ASTR 174 - Astrophysics**
A survey of the processes which generate radiation detected by astronomers, and how astronomers interpret observations to understand the Universe. Topics include radiative transfer, blackbody radiation, bremsstrahlung, synchrotron radiation, inverse Compton scattering, atomic and molecular spectra. Applications will include emission from neutron stars, accretion disks surrounding black holes, stellar atmospheres, intergalactic gas and the cosmic microwave background.

Prerequisite: PHYS 14 or PHYS 16; and PHYS 19 or PHYS 24 or PHYS 40; and ASTR 2 or ASTR 3 or ASTR 15, or permission of instructor.

Distributive: Dist: SCI

**PHYS - Physics - Graduate Courses**

**PHYS 100 - Mathematical Methods for Physicists**
Instructor: Viola
A survey of basic mathematical concepts and tools as relevant to physics applications, with emphasis on finite- and infinite-dimensional linear vector spaces as a unifying framework. Representative topics include: analytic function theory, complex integration and series expansion; basic concepts in linear algebra, linear operators, eigenvalue problems, diagonalization, spectral theorem; systems of ordinary differential equations, operator-valued differential equations; functional spaces and convergence notions, complete orthonormal basis sets; Weierstrass theorem, Fourier series and transforms, Sturm-Liouville systems and orthogonal polynomials, special functions; partial differential equations of mathematical physics, solution by separation of variables, integral transforms, eigenfunction expansions; introduction to Green's function techniques.

Prerequisite: One of ENGS 092, MATH 043, MATH 046 or equivalent with permission of instructor.

**PHYS 101 - Classical Mechanics**
Instructor: Wright
Lagrangian and Hamiltonian formulation of mechanics, canonical transformations, relativistic mechanics, and continuum mechanics.

Prerequisite: PHYS 044

**PHYS 103 - Advanced Quantum Mechanics**
Instructor: Viola
Physics 103 is a graduate-level core course that continues the exploration of fundamental concepts and methods of non-relativistic quantum mechanics, as undertaken in earlier courses, while also addressing a number of advanced topics not covered elsewhere. These include continuous and discrete symmetries; permutation symmetry and basics of second quantization; perturbative techniques for time-dependent quantum phenomena, including Dyson, Magnus, and Floquet formalism; adiabatic quantum dynamics and geometric phases - along with subjects relevant to current areas of research, such as quantum measurement theory and open quantum system dynamics.

Prerequisite: PHYS 090 or equivalent.

**PHYS 104 - Statistical Mechanics I**
Instructor: Ramanathan
Fundamentals of equilibrium statistical mechanics, with emphasis on non-interacting classical and quantum many-body systems. Statistical interpretation of thermodynamics from ensemble theory, with selected applications.

Prerequisite: PHYS 043, PHYS 044, PHYS 90, or equivalent. PHYS 100 recommended.

**PHYS 105 - Electromagnetic Theory I**
Instructor: Rogers
Potential theory of electrostatics, magnetostatics, and steady currents. Maxwell's equations, gauge transformations, and conservation laws.

Prerequisite: PHYS 041

**PHYS 106 - Electromagnetic Theory II**
Instructor: Rogers

Prerequisite: PHYS 066 and PHYS 105.

**PHYS 107 - Relativistic Quantum Field Theory**
Instructor: Walker

Prerequisite: PHYS 101 and PHYS 103

**PHYS 108 - Fluid Mechanics**
Theory of fluid motion. Kinematics of flow fields. Viscous and ideal flows. Shear flows, hydrodynamic stability,

Prerequisite: PHYS 101, or permission of the instructor.

**PHYS 109 - Statistical Mechanics II**

Instructor: Onofrio

Statistical mechanics of interacting classical and quantum many-body systems, collective phenomena and phase transitions. Fundamentals of non-equilibrium statistical mechanics, the approach to equilibrium, transport processes, classical and quantum open systems.

Prerequisite: PHYS 104, PHYS 103 recommended

**PHYS 110 - Methods in Applied Mathematics II**

Continuation of Physics 100 with emphasis on variational calculus, integral equations, and asymptotic and perturbation methods for integrals and differential equations. Selected topics include functional differentiation, Hamilton's principle, Rayleigh-Ritz method, Fredholm and Volterra equations, integral transforms, Schmidt-Hilbert theory, asymptotic series, methods of steepest descent and stationary phase, boundary layer theory, WKB methods, and multiple-scale theory.

Prerequisite: PHYS 100, or equivalent

Cross-Listed as: ENGS 200

**PHYS 111 - Plasma Kinetic Theory**

Instructor: Liu


Prerequisite: PHYS 068, and preferably PHYS 106, or permission of the instructor

**PHYS 113 - Microscopic Theory of Solids**

Instructor: Whitfield

Microscopic theory of electron energy bands in solids; vibrational magnetic and electronic elementary excitations. Applications to classical and quantum transport, magnetism, and superconductivity.

Prerequisite: PHYS 073 and PHYS 090, or permission of the instructor. PHYS 103 recommended

**PHYS 114 - General Relativity and Cosmology**

Prerequisite: Permission of the instructor.

**PHYS 115 - Magnetohydrodynamics**

Instructor: Rogers

The fluid description of plasmas and electrically conducting fluids including magnetohydrodynamics and two-fluid fluid theory. Applications to laboratory and space plasmas including magnetostatics, stationary flows, waves, instabilities, and shocks.

Prerequisite: PHYS 068 or equivalent, or permission of the instructor

Cross-Listed as: ENGS 152

**PHYS 116 - Quantum Information Science**

Instructor: Whitfield

An introduction to some of the active research areas on quantum information science, from a physics perspective. While the final choice and balance will be adjusted to actual demand and interest, special emphasis will be devoted to: Quantum algorithms for efficient search, factoring, and quantum simulation; theory and applications of entanglement; methods for quantum control and error correction; physical implementations of quantum information processing.

Prerequisite: PHYS 042 and PHYS 075, or PHYS 090

**PHYS 118 - Computational Plasma Dynamics**

Theory and computational techniques used in contemporary plasma physics, especially nonlinear plasma dynamics, including fluid, particle and hybrid simulation approaches, also linear dispersion codes and data analysis. This is a "hands-on" numerical course; students will run plasma simulation codes and do a significant amount of new programming (using Matlab).

Prerequisite: PHYS 068 or equivalent with ENGS 091 or equivalent recommended, or permission of the instructor.

Cross-Listed as: ENGS 153

**PHYS 120 - Nonlinear Systems**

Prerequisite: ENGS 100 or equivalent.

**PHYS 121 - Seminar**

Study and discussion in a current area of physics or astronomy.

**PHYS 122 - Special Topics**

Advanced treatment of topics in physics and in astronomy.

**PHYS 123 - Optics**


Identical to ENGS 123.
Prerequisite: ENGS 023 or PHYS 041, and ENGS 092 or equivalent
Cross-Listed as: ENGS 123

**PHYS 124 - Optical Devices and Systems**
Identical to, and described under, ENGS 124
Prerequisite: ENGS 023 or PHYS 041
Cross-Listed as: ENGS 124

**PHYS 126 - Semiconductor Theory and Devices**
Identical to, and described under, ENGS 122.
Prerequisite: ENGS 024 and ENGS 032 or equivalents
Cross-Listed as: ENGS 122

**PHYS 127 - Reading Course**
Advanced graduate students may elect a program of independent reading.

**PHYS 128 - Methods of Materials Characterization**
Instructor: Baker
Identical to, and described under, ENGS 133.
Prerequisite: ENGS 24 or permission
Cross-Listed as: ENGS 137 and CHEM 137

**PHYS 129 - Enterprise Experience Internship**
Practical training experience through a full-time internship at an institution outside of the Dartmouth College campuses (Lebanon and Hanover). The goal of this course is to provide students with real-world, hands-on experience with existing enterprises through internship during graduate school. Such experience will expose students to diverse career opportunities during graduate school, providing students with lead-time to focus and network in a field of interest prior to completion of their PhD.

This course may be taken one time, though under special circumstances, a student can petition to take a second internship.

Prerequisite: Approval of their Thesis Advisor (primary mentor), Thesis Advisory Committee (if in place at the time), and Graduate Curriculum Committee prior to term of enrollment

**PHYS 137 - Graduate Research I: Level I**
Part time (one credit) thesis research under the guidance of a staff member. Open to candidates for the M.S. degree and Ph.D. students before admission to candidacy.

**PHYS 138 - Graduate Research I: Level II**
Part time (two credits) thesis research under the guidance of a staff member. Open to candidates for the M.S. degree and Ph.D. students before admission to candidacy.

**PHYS 139 - Graduate Research I: Level III**
Full time (three credits) thesis research under the guidance of a staff member. Open to candidates for the M.S. degree and Ph.D. students before admission to candidacy.

**PHYS 256 - Instruction in Teaching for Graduate Students**
Instructor: Rimberg
Two-term, one credit course designed for incoming graduate students who will serve as graduate teaching assistants in the department. The course will provide students with resources and experiences directly relevant to typical teaching assistant duties, including public speaking, lab supervision, teacher/student relations and grading. This course also provides training in professional research conduct, including topics in professionalism, authorship, mentoring, data collection, and rigor and reproducibility in the practice of science. Required of entering Ph.D. students. This course is not open for credit to undergraduates.

**PHYS 257 - Supervised Undergraduate Teaching**
Tutoring, laboratory teaching, student evaluation, and leading recitation classes, under the supervision of a faculty member.
Prerequisite: PHYS 256

**PHYS 297 - Graduate Research II: Level I**
Part time (one credit) thesis research under the guidance of a staff member. Open to candidates for the Ph.D. degree.

**PHYS 298 - Graduate Research II: Level II**
Part time (two credits) thesis research under the guidance of a staff member. Open to candidates for the Ph.D. degree.

**PHYS 299 - Graduate Research II: Level III**
Full time (three credits) thesis research under the guidance of a staff member. Open to candidates for the Ph.D. degree.

**Program in Experimental and Molecular Medicine**
Director:

Requirements for the Doctoral Degree (Ph.D.)
To qualify for award of the Ph.D. degree, a student must satisfactorily complete the following requirements:

- PEMM 101 - Scientific Basis of Disease I
- PEMM 102 - Scientific Basis of Disease II
- PEMM 103 - Biostatistics
- PEMM 141, 142 and 143 - Research Rotations
- UNSG 100/PEMM 124 - Ethical and Responsible Conduct of Research
- A minimum of four elective courses (see Additional Requirements by Track)
- Attendance at and participation in Journal Club meetings, Research in Progress (RIP) sessions, and seminars
- Preparation and submission of a written dissertation or thesis following its oral presentation and defense

ADDITIONAL REQUIREMENTS BY TRACK:

Biomedical Physiology & Immunotherapy
- PEMM 271 - Advanced Biomedical Sciences (1 or 2 credits)
- or -
- MICR 144 - Cellular and Molecular Basis of Immunity

Cancer Biology, Pharmacology and Molecular Therapeutics
- PEMM 126 - Cancer Biology
- or -
- PEMM 131 - Current Approaches in Experimental Therapeutics

Neuroscience
- PEMM 115 - Fundamental Neuroscience (2 credits)
- PEMM 115 - Fundamental Neuroscience (2 credits)
- PEMM 144 - Cellular and Molecular Basis of Immunity

2. Attendance and participation in the Program’s weekly seminars and journal clubs.

3. Students must be enrolled in a research course every term; rotations in the early terms and thesis research credit thereafter.
- PEMM 141, PEMM 142, PEMM 143. Research Rotations (three to be completed within 9 months)
- PEMM 297, PEMM 298, PEMM 299. Thesis Research, a credit/no credit course for graduate students

5. Satisfactory completion of a significant research project, and preparation of a thesis describing this research.


For further information, see the Graduate Study Catalog.

PEMM-Experimental and Molecular Medicine

PEMM 700 - Responsible and Ethical Conduct of Research
Instructor: Gulledge and North
Required course for all Program in Experimental and Molecular Medicine graduate students. Generally consists of five two hour sessions as well as additional reading and preparation.

$name

PEMM 101 - Scientific Basis of Disease I
Instructor: T. Miller and others
This course offers a general introduction to experimental and molecular medicine through principles from cell biology, molecular biology, immunology, neurobiology and physiology. Basic biological concepts will be integrated with clinical correlations and translational research. The class will meet 6-7 hours per week and combine both lectures and readings from the primary literature. Teaching modules will cover Physiological Systems, Integration of Biological Systems, Macromolecular Structure, Nuclear Processes, Protein Synthesis, turnover and trafficking, and Metabolism.

PEMM 102 - Scientific Basis of Disease II
Instructor: T. Miller and others
This course is a continuation of PEMM 101 and offers a general introduction to experimental and molecular medicine through principles from cell biology, molecular...
biology, neurobiology and physiology. Basic biological concepts will be integrated with clinical correlations and translational research. The class will meet 6-7 hours per week and combine both lectures and readings from the primary literature. Teaching modules will cover Plasma membrane receptors: channels and transporters, Plasma membrane receptors: adhesion, motility, proliferation and survival, Immunology and Inflammation.

PEMM 103 - Biostatistics
Instructor: B. Christensen and J. Gui

This course is a survey of the statistical methods most often used in biomedical research. The course aims to provide you with an understanding of basic statistical concepts, principles of data analysis, and will include interactive examples that will serve as an introduction to conducting data analysis in R. A freely available statistical computing environment, R is a widely used data analysis program.

PEMM 113 - Special Topics in Advanced Physiology
This course is designed for students to gain a greater understanding of advanced topics in physiology. Topics to include:

Cardiovascular Physiology (J. Leiter)
Comparative Physiology (J. Leiter)
Endocrine Physiology (V. Galton or W. North)
Respiratory Physiology (J. Leiter)

Interested students should contact individual faculty members listed next to the topic of interest.

PEMM 115 - Foundational Neuroscience
Instructor: A. Gulledge

The PEMM 115 course provides graduate students with a rigorous exploration of fundamental neuroscience spanning from neurochemistry and molecular mechanisms, to systems neuroscience and pathological disease states. The course is designed to provide first-year neuroscience students with foundational knowledge upon which they will build as they pursue their own individualized research directions within the PEMM neuroscience theme. Specific topics covered include neural development, circuit formation and anatomy, neurophysiology and signaling, sensory and motor systems, neurogenetics, and pathology.

Prerequisite is PEMM 101/102 or equivalent

PEMM 123 - Graduate Toxicology
This course provides an introduction to toxicology as a discipline, with a focus on the molecular basis for toxicity of chemicals in biological systems. Major topics include: principles of cell and molecular toxicology, xenobiotic metabolism, molecular targets of cellular toxicity, genetic toxicology, chemical carcinogenesis, immunotoxicology, neurotoxicology, clinical toxicology, and quantitative risk assessment. Faculty lectures and discussion. This course is open to graduate, medical and advanced undergraduate students (with permission from the Course Director).

Prerequisite: PEMM 101 and PEMM 102, or permission of course director

PEMM 124 - Ethical Conduct of Research
Instructor: A. Gulledge and W. North

This course is required for all PEMM and MCB graduate students. The course consists of four 1-hour lectures conducted in January. Topics include: ethical use of human subjects and laboratory animals, sponsored research, intellectual property and conflicts of interest.

PEMM 126 - Cancer Biology
Instructor: T. Miller

This course will present a comprehensive survey of the biology, biochemistry, pharmacology, and genetics of cancer. Students will become familiar with such areas as cancer terminology, epidemiology, carcinogenesis, tumor promotion, metastasis, oncogenes, tumor suppressor genes, growth factors, hormones, immunology, and therapy. Where possible, emphasis will be placed on the most recent cellular and molecular aspects of cancer. The class will be in lecture format and meet for 3 hours each week. Faculty lectures, discussion, and student presentations. PEMM 101/102 (or equivalent) is a prerequisite for this course.

Prerequisite: PEMM 101 and PEMM 102, or permission of instructor

PEMM 128 - Enterprise Experience Internship
Instructor: T. Miller

This course provides credit for a full-time internship at an outside institution during a PhD program. The goal of this course is to provide students with real-world, hands-on experience with existing enterprises through internship during graduate school. Such experience will expose students to diverse career opportunities during graduate school, providing students will lead-time to focus and network in a field of interest prior to completion of their PhD.
For this course, the student will propose and arrange a paid or unpaid internship in an existing enterprise (industry, government, or other) in consultation with their Faculty Advisor (primary mentor) prior to enrollment. Course enrollment is concurrent with the internship and should be for a period of 1 or 2 consecutive terms. At the end of the internship, the student will make an oral presentation (with Powerpoint slides; approx. 20 minutes) to the PEMM community that addresses the nature of the enterprise they were engaged in, the problem they were assigned, and the results and impact of their project. The purpose of the presentation is to share lessons learned from the internship experience with the PEMM community. The presentation will be accompanied by a short but complete written report. Neither the presentation nor report should contain confidential information of the enterprise.

International students with F-1 status must request Curricular Practical Training (CPT) authorization with OVIS in order to participate in the course and the internship.

PEMM 131 - Current Approaches in Experimental Therapeutics
Instructor: T. Miller, X. Wang
The course will present a practical survey of cutting-edge technology used to investigate various human diseases in vitro and in vivo, and of technical approaches to therapeutics and all stages of drug development. Topics will include global gene expression, proteomics, gene targeting, epigenetics, mouse genetics, neuropharmacology, in vivo imaging, cellular probes, and drug development. The class will be in lecture format with some reading materials, including recent publications, relevant to specific lectures. The class will meet for 3 hours each week. Faculty lectures and discussion.

Class will be held T/Th 8:30-10am.
Prerequisite: PEMM 101 and PEMM 102, or permission of course director

PEMM 132 - Clinical Management of Cancer
Instructor: T. Miller and M. Chamberlin
This course will expose non-clinical researchers to the clinical realities of managing cancer through classroom lectures, tumor board case review sessions, and observation of everyday oncology clinic experiences.

Students will gain insight into the issues associated with the clinical management of diverse cancer subtypes; an understanding of the complexities involved in treating people/patients, not just the cancer, including consideration and management of the side effects of therapy; and exposure to translational and clinical approaches to cancer research. The format will be a one-hour lecture each week by a practicing clinician, attendance at 5 one-hour tumor board sessions, and 5 half-days of observation in oncology clinics. Students must be in second year or later in a Geisel PhD program (or receive permission for exception from Course Director).

Prerequisite: Cancer Biology

PEMM 133 - Pharmacology of Drug Development
Instructor: TBD
This course will provide a solid foundation in the principles of pharmacology including pharmacodynamics, pharmacokinetics, drug metabolism and biotransformation, bioavailability and receptor pharmacology. Emphasis is on how drugs are developed and the challenges and pitfalls that are involved in the drug development process using real-life examples. The class will be a combination of lecture format and student projects and presentations. The class will meet for approximately 3 hours each week. Faculty lectures and student projects and presentations.

Prerequisite: PEMM 101 and PEMM 102, or permission of course director

PEMM 137 - Qualifying Examination
Effective writing of grant applications is required for a successful career in research. The grant application component of the graduate program is both a training exercise to help develop grant writing skills and a qualifying exam. Learning how to compose a defendable hypothesis is an essential component of the training of a graduate student. Students should be able to develop a novel line of research, propose a hypothesis, and develop a series of experiments to test this hypothesis. A student must be able to defend the proposal at an oral examination. At the same time, the student should also demonstrate knowledge of the larger field of Experimental and Molecular Medicine reflected in the general area of the proposal and material covered in completed coursework.

PEMM 141 - Research Rotation I
A brief introduction to specific aspects of research provides the student with a general appreciation of various research areas and approaches. The purpose of the research rotations is to allow the student to obtain basic training in a variety of laboratory techniques and methods, and to identify a faculty member as a potential thesis advisor. Each rotation lasts three months and students complete three within the first year.
PEMM 142 - Research Rotation II
A brief introduction to specific aspects of research provides the student with a general appreciation of various research areas and approaches. The purpose of the research rotations is to allow the student to obtain basic training in a variety of laboratory techniques and methods, and to identify a faculty member as a potential thesis advisor. Each rotation lasts three months and students complete three within the first year.

PEMM 143 - Research Rotation III
A brief introduction to specific aspects of research provides the student with a general appreciation of various research areas and approaches. The purpose of the research rotations is to allow the student to obtain basic training in a variety of laboratory techniques and methods, and to identify a faculty member as a potential thesis advisor. Each rotation lasts three months and students complete three within the first year.

PEMM 150 - Neurosciences I: Molecular and Cellular Neuroscience
Instructor: L. Henderson
This course is designed for students with a solid fundamental background in Neuroscience. Students should have completed Foundational Neuroscience or the equivalent as a prerequisite. Students without this background who wish to take this course may do so with permission of the Instructor. Lectures will cover both classical papers relevant to cellular and molecular neuroscience as well as recent studies that highlight controversial and important findings in this field. Students will be required to read and critique original research papers. Discussion of these papers is an integral part of the course.

PEMM 212 - Neurosciences II
Instructor: A. Gulledge
The course (Neuroscience II) is an intermediate/advanced course in neuroscience - from the molecular level on up through the cognitive and clinical levels. It is taught in alternate summers by a group of medical school faculty and is intended for those students who have completed PEMM 115, or equivalent. It is open to all students, but is especially appropriate for first-year PEMM students concentrating in neuroscience. The course will involve a combination of lecture/tutorials and readings/discussions of journal articles.

PEMM 261 - Journal Club
Instructor: B. Christensen, A. Kettenbach, H. Yeh
This course is required of all students during each term of residence, except summer. An essential element of scientific training is in the critical analysis and communication of experimental research in an oral format. Evaluation will be based on quality of the work described, quality of critical analysis, and on presentation style, including effective use of audio-visual materials. All students will be required to participate in at least one Journal Club presentation each term that describes work from the current literature and one Research in Progress presentation each academic year that describes their own research.

Section 1 is Neuroscience, Section 2 is Cancer Biology, Pharmacology and Molecular Therapeutics

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Section 1 is Neuroscience, Section 2 is Cancer Biology, Pharmacology and Molecular Therapeutics
PEMM 211 - Neurobiology of Disease
Instructor: M. Havrda and S. Lee

This course covers the clinical, cellular and molecular perspectives of neurologic disorders. Different disease topics will be used to compare and contrast commonalities and differences across diseases covering a range of neurobiological processes. The course will be team taught by clinicians and experts from the neuroscience faculty who will give a one-hour didactic lecture in the first session of the week, followed by a 1.5-hour student-led presentation, critique and discussion on the topic chosen by the faculty for that week. Students will be evaluated based on performance on written assignments, presentations, and participation in discussion.

Offered again in 2022 spring, every other year.

Prerequisite: For graduate students—Foundational Neuroscience (spring term; A. Gulledge, Course Director); For undergraduate students—must be senior Neuroscience major. Instructor: Lee (course director) and others.

PEMM 271 - Advanced Biomedical Sciences
Instructor: H. Yeh

This course emphasizes the integration of molecular, cellular, and systems level information and the experimental approaches used to understand physiology and pathophysiology. It is designed to provide graduate students with a more sophisticated understanding of the major systems of an organism and how they act and interact in order for an individual to adapt and survive in the face of changing environmental resources and challenges. The course is organized into week-long, "stand alone" modules that can cover integrative, translational topics in immunology, immunotherapy, neurobiology (e.g., sleep disorders, drug addiction), and cancer biology. Course meetings are a mixture of lectures and in-class discussions led by the participating faculty.

PEMM 271 is designed to be tailored to the needs of the students. The modules vary year-to-year based on the interests of the students in any given class. Past modules have ranged from neurobiology, to cardiovascular physiology, respiratory physiology, immunology and immunotherapy, as well as endocrinology. The class format has included laboratory exercises and demonstrations, visits to clinical laboratories and diagnostic centers, and "hands on" opportunities with state-of-the-art techniques. Reading and discussion of primary research literature, reviews, and other on-line materials supplement the course activities. Students interested in registering for PEMM 271 are encouraged to meet as a group with the course director at least a month before the start of the course to identify module topics of interest and PEMM faculty to lead the module.

PEMM 275 - Vascular Biology
Instructor: R. Stan

The principles of development, organization and function of the cardiovascular tree in health and disease will be discussed in lecture format. Topics will include the physiology and regulation of vasculature as an organ system, the molecular and cellular biology of endothelial cell function, and the molecular basis of the disorders of the vascular system. Emphasis will be placed on molecular aspects of cardiovascular disease such as atherosclerosis, diabetes, inflammation and neovascularization. The course will meet 4 hours per week. Course materials will include current literature reviews and research articles.

PEMM 297 - Level I: part-time research: 1 course equivalent
Part time research

PEMM 298 - Level II: part-time research: 2 course equivalent
Part time research (2 credits)

PEMM 299 - Level III: full-time research: 3 course equivalent
Full time research

Psychological and Brain Sciences - Graduate
Chair: B. Duchaine, Professor


To view Psychological and Brain Sciences Graduate courses, click here.

To view Psychological and Brain Sciences Undergraduate requirements, click here.

To view Psychological and Brain Sciences Undergraduate courses, click here.
Requirements for the Doctor’s Degree (Ph.D.)
The Department offers graduate training leading to the Ph.D. in Psychological and Brain Sciences or Cognitive Neuroscience. The program emphasizes acquaintance with the basic psychological and neural processes that form the core of contemporary psychological science. Students are encouraged in their research to address problems of broad significance and to be knowledgeable about the theory that makes breadth coherent.

The course requirements for the Ph.D. in Psychological and Brain Sciences are as follows:
1. Proseminar (PSYC 100)
2. Measurement and Statistics I and II (PSYC 110 and PSYC 111)
3. Five additional graduate courses, including at least two Core Courses (PSYC 120-129, PEMM 115) and at least one Content Seminar (PSYC 170-179). The remaining two courses may be Methods Seminars (PSYC 160-169), Core Courses, or Content Seminars. Note that PEMM 115 is a two credit course, so fulfills the two core course requirement.

The course requirements for the Ph.D. in Cognitive Neuroscience are as follows:
1. Proseminar (PSYC 100)
2. Measurement and Statistics I and II (PSYC 110 and PSYC 111)
3. Two core courses: Neuroscience (PEMM 115) and Cognitive Neuroscience (PSYC 128)
4. Two electives from the following list (non-exhaustive)
   b. Neuroimaging and Data Analysis: Principles of Human Brain Mapping (PSYC 60), Imaging Methods (PSYC 160), Computational Methods/Analysis of Neural Data (PSYC 164)
   c. The Neural Code: Neural Decoding (PSYC 179)

Both programs require the following:
1. Completion of the teaching apprenticeship program.
2. A passing grade in a Specialist Examination, typically by the end of the winter term during the second year, and the Second Year Research Presentation, typically in the spring term during the second year.
3. Fulfillment of the two-year-residence requirement.
4. Completion of independent research and a dissertation; a defense of the dissertation; and presentation of the dissertation research in a public oral colloquium.
5. For more specific details regarding the program see the ‘Guide to PBS Graduate Program.’

Psychological and Brain Sciences Department Website
Please check the department website at http://pbs.dartmouth.edu/graduate-program-psychological-and-brain-sciences for further information.

Graduate Courses
PSYC 700 - Responsible and Ethical Conduct of Research
Instructor: Clark
Required course for all Cognitive Neuroscience and Psychological Brain Sciences graduate students. Generally consists of five two hour sessions as well as additional reading and preparation.

PSYC 100 - Proseminar
Instructor: PBS Faculty
An introduction to the research programs of PBS Faculty. Taken by students in their first year.

PSYC 110 - Measurement and Statistics I
Instructor: Wolford
First section of Graduate level statistics. Typically taken by PBS students in their first or second year.

PSYC 111 - Measurement and Statistics II
Instructor: Wolford
Second term of Graduate level statistics. Typically taken by PBS students in their first or second year.

PSYC 115 - Supervised Undergraduate Teaching
Register for this course when you TA an undergraduate course.

PSYC 117 - Specialist Requirement
Taken while doing specialist reading and written exam, usually not awarded a grade until completed ('ON' appears in the grade column until exam is completed). The Specialist Requirement is designed to ensure that students have basic knowledge in their chosen sub-discipline that prepares them for their pre-dissertation and dissertation research. It consists of a reading list tailored to the student’s sub-discipline and a take-home exam based on the readings. This take-home exam must be turned in by the first day of the spring term of their second year.

PSYC 118 - Research Presentation
During the spring term of their second year, graduate students are required to give a presentation discussing
The goal of this course is to understand behavior as a combination of different brain structures in the organization of motor, sensory, and limbic systems. These systems are sensory, motor, and limbic—each of which is important for our underlying learning, memory, and emotional feelings. But ultimately, even these "higher order processes" must be understood in terms of their underlying neural mechanisms. The course focuses on discussing three major systems within the brain—each of which is important for our underlying behavior. These systems are sensory, motor, and limbic. Some emphasis will be placed on where the brain is organized from an anatomical perspective and the connections between different brain structures. This emphasis will complement the first four laboratories where you will have a hands-on experience in examining a sheep's brain. In the second half of the course, you will test animals in a spatial learning task and observe some of the techniques used by neuroscientists to study the brain. This course is taught in conjunction with PSYC 65 in the 10-hour lab. In addition to the undergraduate portion described above, the graduate students will meet once per week to discuss the covered topics in further depth. During the first month of the course, we will also cover the basis of membrane potentials and synaptic transmission.

**PSYC 127 - Functional Neuroanatomy**

This course covers the structure of the brain from a functional perspective. We will trace key structural components of the brain at the levels of the system, circuit, and cell, with an emphasis on how these components combine to accomplish a specific functional goal. Course materials will focus on the human brain. Several lab activities throughout the quarter will include brain dissections and examinations of traditional and interactive atlases.

**PSYC 128 - Cognitive Neuroscience**

Instructor: Tse

See department website for description.

**PSYC 160 - Imaging Methods**

Instructor: Chang

How can we understand how the brain works? This course provides an introduction to in vivo neuroimaging in humans using functional magnetic resonance imaging (fMRI). The goal of the class is to introduce: (1) how the scanner generates data, (2) how psychological states can be probed in the scanner, and (3) how this data can be processed and analyzed. Students will be expected to analyze brain imaging data using the open-source Python programming language. We will be using several packages such as numpy, matplotlib, nibabel, nilearn, fminiprep, pybids, and niftools. We will cover the basics of signal processing, and how we can make inferences using the general linear model. We will also introduce more advanced analysis techniques such as prediction/classification, representational similarity analysis, and intersubject correlations.

**PSYC 162 - Human Electrophysiology Lab**

Instructor: Störmer

The goal of this course is to provide an introduction to the methodology of human electroencephalogram (EEG), including event-related potentials (ERPs), oscillatory activity, and steady-state visual evoked potentials (SSVEPs). The course will provide theoretical background on these methods, as well as hands-on experience: we will design our own EEG experiment, record EEG data in the lab, and analyze it together; including data preprocessing (artifact rejection, filtering), computing ERPs, and oscillatory activity. Finally, the class will also cover how to present EEG/ERP data and interpret ERP components, oscillations, and SSVEPs.

**PSYC 164 - Computational Methods**

Instructor: Haxby

This course will review current computational methods for understanding how information is coded in neural activity and how to decode patterns of neural activity to reveal the information that is being represented and processed. The course will cover topics such as multivariate pattern classification, representational similarity analysis, forward encoding models, and using hyperalignment to build common models of representational and connectivity spaces. The course will concentrate on applications to human functional neuroimaging data, but application to...
other methods of measuring neural activity in humans and animals will also be covered.

**PSYC 167 - Professional Development**
Content varies depending on instructor.

**PSYC 168 - Experiential Learning**
The goal of this course is to provide students with practical training through a full-time internship outside of Dartmouth College. This real-world, hands-on experience will expose students to diverse career opportunities during graduate school and give students a chance to engage with a field of interest, related to their doctoral research, prior to completion of their PhD.

For this course, the student will propose and arrange a paid or unpaid internship in an existing enterprise (industry, government, or other) in consultation with their Thesis Advisor (primary mentor) and the PBS Graduate Committee. This process should happen in advance of the term of enrollment. Course enrollment is concurrent with the internship and should be for a period of one term. At the end of the internship, the student will make an oral presentation to the PBS community (faculty, post-doctoral fellows, graduate students, and others who may be interested) that addresses the nature of the enterprise they were engaged in, the problem they were assigned, and the results and impact of their project. The purpose of the presentation is to share lessons learned from the internship experience with the PBS community. The presentation will be accompanied by a short but complete written report. Neither the presentation nor report should contain confidential information of the enterprise.

This course is considered a methods course, carries two credits, and can fulfill one of the elective course requirements for the PhD degree. Students may enroll in the course no more than once. Students holding F-1 sponsorship should consult with the Office of Visa and Immigration Services (OVIS). Students engaged in paid internships will not receive a graduate student stipend during the term of the internship.

Prerequisite: This course is generally open to students in their second-fourth year in the program (i.e. after completion of their first three terms and prior to proposing their dissertation). Instructor permission is required and will be granted once the PBS Graduate Committee approves of the student’s internship proposal.

**PSYC 171 - Brain Evolution**
Instructor: Granger

For the first 200 million years of mammalian evolution, animals’ brain sizes were relatively predictable from their body size via a straightforward allometric relation. In the past four million years, an evolutionary blink of the eye, primates rapidly evolved brains that are four times larger than previously would have been predicted for their body size. What are the contents of our brains? How do they differ from the brains of other mammals (and non-mammals)? How did they acquire their enormous size? Evolution acts on genes, not on organisms; what are the genetic factors that have been identified in recent primate brain growth? What mechanisms are at play, including extrinsic factors and evolutionary “pressures”? What criteria must theories of brain evolution conform to, and what data are to be accounted for? What differential predictions arise from various theories and how are they tested? What relationships obtain between anatomical and functional brain characteristics? The class will cover a set of related topics including brain structure, anthropology, evolution, genetics, development, cognition, race, and intelligence.

**PSYC 174 - Computational Neuroscience: Brain Engineering**
Instructor: Granger

Brain circuits are circuits. Just as we can write down what an iphone or a computer does, so we can derive candidate operations and algorithms that brain circuits may be carrying out. Evidence suggests that brains are non-standard engineering devices: they have unusually low-precision synaptic connections, operating at speeds that are ridiculously slower than electronic circuits; yet brains are so good at some tasks, from face and voice recognition to language understanding, that the field of computer science now often imitates brains in order to rival their performance. We will read papers relevant to disparate approaches to brain modeling, and discuss predominantly brain circuit approaches. The aim of the course will be to enhance understanding of the current literature and enable critical readings of it. Qualified undergraduates may take the course by permission of instructor.

**PSYC 175 - Current Topics in Behavioral Neuroscience**
Instructor: Smith

This course will explore historical and modern accounts of reward and motivation. We will also address what role these processes could play in addictions and what aspects of addiction might involve other processes. Equal focus will be paid to behavioral and neural components. The course will emphasize research using small animal models to understand them. Students will become familiar with broadly applicable concepts and research methods used in the behavioral neuroscience of reward and motivation.

**PSYC 179 - Seminar in Special Topics**
Content varies depending on instructor.

**PSYC 188 - Graduate Research (1 credit)**
One credit of graduate research.
PSYC 288 - Graduate Research (2 credits)
Two credits of graduate research.

PSYC 388 - Graduate Research (3 credits)
Three credits of graduate research.

Quantitative Biomedical Sciences
Quantitative Biomedical Sciences Graduate Degree Programs
Director: Diane Gilbert-Diamond, ScD
Associate Director: Scott Gerber, PhD
Director of Academic & Student Affairs: Kristine A. Giffin, PhD
Program Coordinator: Rosemary White

Doctoral Degree (Ph.D.) in Quantitative Biomedical Sciences (QBS)
Modern biomedical research relies on both multidisciplinary and interdisciplinary approaches. Multidisciplinary approaches bring several different scientific disciplines such as bioinformatics and genetics to bear on a research question. Interdisciplinary approaches synthesize knowledge and methods from other disciplines to provide an integrated framework for solving complex biomedical problems in new ways.

The rapid advancement of high-throughput technologies such as DNA microarrays and mass spectrometry for measuring biological systems and their application as part of translational medicine has generated a significant demand for investigators doing cutting-edge research in quantitative disciplines such as bioinformatics, biostatistics and epidemiology. Those with the greatest impact are cross-trained in multiple disciplines giving them the ability to synthesize and integrate several disciplines to provide a truly interdisciplinary approach to solving complex biomedical problems.

The goal of the Graduate Program in Quantitative Biomedical Sciences (QBS) is to prepare PhD students for careers at the intersection of biomedical research and quantitative sciences such as bioinformatics, biostatistics and epidemiology.

The requirements for the PhD in QBS can be found HERE.

QBS Masters Degree Concentrations
Health Data Science

Health Data Science is one of the most critical and fastest-growing fields in both the private sector and academic world. QBS's distinctive program emphasizes rigorous training in biostatistics, data visualization and wrangling, and machine learning aided by important problems from health and health care. It focuses on complex modeling to predict outcomes for disease and to evaluate the efficacy of patient treatment plans and other health care interventions, helping to improve organizational efficiency and quality of patient care. The requirements for the Health Data Science Concentration can be found HERE.

Epidemiology
The Epidemiology concentration focuses on the study of the distribution and determinants of disease in humans. It is a focus that is foundational to overall public health through the identification of health hazards and patterns of disease. QBS's innovative epidemiology program emphasizes rigorous quantitative training in epidemiological methods that is supported by cross-training in biostatistics and informatics. The field of epidemiology is rapidly expanding with significant growth occurring in biomedical research and nonprofit organizations. The requirements for the Epidemiology Concentration can be found HERE.

Medical Informatics
The Medical Informatics concentration tackles data challenges and opportunities using a multi-pronged approach that reflects the location of the field at the intersection of information science, data science, biostatistics, and health care. QBS's unique medical informatics program emphasizes rigorous training in informatics applied to medicine by building off solid foundational training in data science, biostatistics, and epidemiology. It analyzes how to put medical treatments and technologies into the most efficient use for patient care in clinical and research settings. The requirements for the Medical Informatics Concentration can be found HERE.

*The QBS master’s degree is also offered internally to PhD students at Dartmouth who are enrolled in a program separate from QBS. Students interested in applying for this program should obtain proper permission from their advisor and their program. More information on requirements and applying can be found HERE.

Quantitative Biomedical Sciences
QBS 700 - Responsible and Ethical Conduct of Research
Instructor: Dr. Kristine Giffin & Dr. John Brand
Required course for all Quantitative Biomedical Sciences graduate students. Generally consists of five two hour sessions as well as additional reading and preparation.

This course is part of a campus-wide series that provides training in professional research conduct and is required of all Dartmouth graduate students. QBS 700 covers issues regarding the responsible and ethical conduct of biomedical research, including topics in professionalism, authorship, mentoring, data collection, and rigor and reproducibility in the practice of science. The current curriculum was developed by the Graduate Studies Office in collaboration with the Ethics Institute at Dartmouth. In five sessions over the pre-term and the fall term, we will meet in smaller groups of first-year QBS MS & PhD graduate students to facilitate discussions on ethical dilemmas that biomedical scientists may encounter in their careers. Case studies will be used to provide a framework for discussions on ethical issues occurring in scientific research. This course seeks to coordinate basic training in professional ethics required of all Dartmouth graduate students with ethical training in the biomedical sciences required for NIH-sponsored research. The five sessions of the course will focus on topics related to NIH-sponsored research including ethical use of research subjects and intellectual property.

QBS 101 - Foundations of Programming for Data Scientists
Instructor: Dr. Christian Darabos
This course covers the essential concepts of programming to students who desire to understand computational approaches to problem solving using live code examples and in-class exercises in Python, Bash scripting and High Performance Computing (HPC).

(0.5 Unit)
Prerequisite: QBS 103 or Permission of Instructor

QBS 102 - Scientific Writing
Instructor: TBD
This course is to provide students with a skill set for effective scientific writing. Students will have multiple opportunities to practice their skills during in-class activities and out-of-class assignments. Topics relate to 1) summarizing and dissemination of scientific findings (6 weeks) and 2) grant proposal writing (4 weeks). The course will include minimal structured lectures and most content will be delivered via in-class active learning activities. Peer-review will be a major component of the course. Throughout the course, students will have multiple opportunities to learn and practice the skills needed to verbally communicate scientific findings.

(0.5 Units)
Prerequisite: Preference given to 2nd then 1st year QBS PhD students.

QBS 103 - Foundations of Data Science
Instructor: Dr. Carly Bobak
Strong programming and mathematics skills are the crucial foundation for any data scientist. In this course, students will have a boot camp style introduction to programming in R and review of critical linear algebra and calculus that will serve as the foundation of many of their courses in this program. Students will be exposed to introductory programming practices, data visualization, data wrangling, introductory data analysis, type setting in LaTeX, using GitHub repositories, and High Performance Computing (HPC). During the calculus review, exercises in topics such as linear algebra, sequences and series, and derivatives and integration will be provided.

Mandatory for QBS PhD & MS students upon matriculation.
Open to only QBS students unless otherwise approved.
Prerequisite: Calculus, Multivariate Calculus, Linear Algebra. Previous coding experience highly recommended. Instructor/Administration Permission for Non-QBS Students

QBS 108 - Machine Learning
Instructor: Dr. Saeed Hassanpour
This course provides a comprehensive introduction to machine learning methods and techniques. Various machine learning concepts and methods, such as natural language processing and deep learning, will be described and discussed. The emphasis of this course will be providing the required background and working knowledge of the machine learning methodology to apply these techniques on new or existing research or data science problems. Through multiple project assignments, this course will provide students with the experience on the application of machine learning techniques to solve real-world complex problems, such as those in the biomedical domain.


QBS 110 - Integrative Biomedical Sciences Seminar
Instructor: Dr. Kristine Giffin & QBS Faculty
This mandatory first year PhD course is designed to introduce students to the diversity of biomedical research in QBS across the quantitative sciences. This will provide students with a broad perspective about the types of biomedical research questions that could be addressed using quantitative methods across many disciplines as well
as provide them with information that may help to guide future lab rotation selection. This course is also open to QBS MS students who may be interested in pursuing research projects with faculty for credit. Beginning upon arrival in August and culminating in September, each week students will review and discuss literature from various QBS faculty members that will be present on their research interests and lab projects.

(0.5 Unit)
Prerequisite: Non-QBS students need permission of instructor

QBS 110.5 - Integrative Biomedical Sciences Seminar Project
Instructor: Dr. Kristine Giffin & QBS Faculty

This optional QBS course elective can only be taken in sequence with QBS 110: Integrative Biomedical Sciences Seminar, a course designed to introduce first year QBS students to the diversity of biomedical research in QBS across the quantitative sciences. In 110, students are expected to gain a broad perspective about the types of biomedical research questions that could be addressed using quantitative methods in addition to obtaining information that may help guide future lab rotation selection or independent study projects. This project-based continuation of the course is meant to further promote interdisciplinary thinking by requiring students to develop a project proposal and oral presentation that describes how to bring together 2 or more QBS faculty members to solve a biomedical research question that is not currently being addressed in an active collaboration. This will provide students with experience thinking about how to bring a diverse and collaborative team of scientists together to solve a complex problem. Students may potentially even develop a project idea that they wish to explore in future rotations, a dissertation project, or independent study. *not every faculty who lectured in QBS 110 may be available to participate and the course instructor will provide a list of faculty available prior to the start of the course.

(0.5 Unit)
Prerequisite: QBS 110. Non-QBS students need permission of instructor

QBS 119 - Biostatistics I: Applied Biostatistics
Instructor: Dr. Jennifer Emond

In this course, students will learn foundational topics for biostatistics including probability, probability distributions, random variables, moments of distributions, variable transformations, sampling distributions, the central limit theorem, P-values and confidence intervals, hypothesis testing, parametric and non-parametric test statistics, power and sample size calculations, and study designs for biomedical research. Statistical testing approaches covered in the course will include bivariate analyses (including simple linear regression) to prepare the student for multivariable modeling in future courses. Course content will be drawn from the course text book and peer-reviewed research studies. In-class activities will prominently feature active learning activities. The course will require extensive use of the R Language for Statistical Computing.

The course is intended for students who need a strong foundation in statistical thinking and basic biostatistics concepts to enable them to continue to more advanced applied biostatistical coursework in multivariable statistical modeling. The content will largely parallel that of QBS 120 yet will differ from that course by emphasizing the application of biostatistics and not the underlying mathematical theory. Graduate students who intend to pursue methods development (either within biostatistics or bioinformatics) or those who wish to understand the mathematical foundations of statistical theory should enroll in QBS 120.

Prerequisite: N/A

QBS 120 - Foundations of Biostatistics I: Statistical Theory for the Quantitative Biomedical Sciences
Instructor: Dr. Robert Frost

is a time-intensive graduate-level course in mathematical statistics designed to teach the fundamental knowledge of statistical theory required to read and, with further study, contribute to the statistical methodology literature. An in depth overview of statistical estimation and hypothesis testing will be provided, including the method of least squares, maximum likelihood methods, asymptotic methods, and correction for multiple comparisons. The basic elements of statistical design and sample size calculations will be introduced. Resampling strategies will be discussed in the context of the bootstrap, as well as simulation as a tool for statistical research. The emphasis will be on theory used in modern applications in biomedical sciences, including genomics, epidemiology, and clinical and health services research. The statistical program language R will be leveraged for computational examples, problem sets and exams.

Prerequisite: Dartmouth Coursework: No specific Dartmouth courses are required. See syllabus for specific prerequisites. QBS 120 is a fast-paced, calculus-based graduate mathematical statistics course with a strong theoretical component. It is assumed that students are comfortable with multivariate calculus, mathematical proofs, linear algebra and R programming. A strong internal motivation to learn the material and complete challenging assignments is essential to success in this class. Students should expect to spend 10-15+ hours per week outside of class. Students are strongly encouraged to
review the content and level of theory in the class textbook (Rice, see below) prior to registering for the class. Versions of prior problem sets (and solutions) are also available on request to help students assess the class workload, theoretical component and assumed mathematical and computational background.

Cross-Listed as: PH 271

QBS 121 - Foundations of Biostatistics II: Statistical Modeling

Instructor: Drs. Todd MacKenzie & Tor Tosteson

We cover the theory and applications of statistical modelling, also known as regression, as practiced in the quantitative biomedical sciences. We present statistical inference (estimation and hypothesis testing) for linear models, generalized linear models (i.e. logistic and Poisson regression), and models for times-to-event (survival analysis). The course emphasizes the dual goals of modelling which are (i) prediction and (ii) causal inference. It includes applications of penalized (regularized) regression, propensity scores and methods for missing data. We use the statistical software R.

Prerequisite: QBS 120 or QBS 119. Calculus, linear algebra. Programming: Intermediate proficiency in R.

Cross-Listed as: PH 271

QBS 122 - Foundations of Biostatistics III: Modeling Complex Data

Instructor: Dr. James O'Malley

This course follows QBS 120 (Biostatistics I: Theoretical Foundations) and QBS 121 (Biostatistics II: Modeling). The first module of the course extends standard regression models to analyze data when the data are statistically dependent. This component encompasses clustered, multi-level, longitudinal and other forms of structured data and will focus on hierarchical (mixed-effect) modeling approaches. The consideration of random effects and their conditional distribution given that data links to the final two modules. Bayesian methodology is carefully developed and compared to the classical (frequentist) approach. Bayesian statistical methods are a feature of this course due to their affinity for solving challenging problems and their ubiquity across modern statistical applications. A variety of applications in which Bayesian methods are naturally suited are considered. Bayesian computation via Markov-chain Monte-Carlo (MCMC) is also developed and illustrated. The course concludes with the network analysis module. This includes visualization and summarization of networks; models of networks; and models of peer effects and social influence processes. The techniques and methods developed in the two prior modules are further illustrated in this module.

Learning Objectives

1. Become adept at recognizing when data has a nested, cross-classified, longitudinal or multivariate structure and familiar with statistical techniques for analyzing such data

2. Gain a strong understanding of the fundamentals of Bayesian Analysis and develop an ability to perform Bayesian analyses

3. Be able to conduct a social network analysis from the grassroots, encompassing specification of the research question, representation of data, choice of statistical analysis, implementation of analysis and visualization of results

Prerequisite: QBS 120 and QBS 121. The course has a strong “hands-on” emphasis on analyzing data while consolidating ideas through relevant methodological and intuitive insights. Linear algebra, multivariate calculus, statistics, probability and basic computer programming with an emphasis on mathematical/statistical programming. Programming: Intermediate proficiency in R.

QBS 123 - Biostatistics Consulting Lab

Instructor: Drs. Todd MacKenzie & Tor Tosteson

This is a practicum that gives students experience in biostatistics consulting. Students will collaborate with clinician and other investigators to address clinical, translational and health services questions with the guidance of a faculty biostatistician.

(0.5 Unit)

Prerequisite: QBS 121: Permission of Instructor. Programming: Intermediate proficiency in R, Data Wrangling, Data Visualization are recommended

QBS 124 - Advanced Biomedical Data Analysis

Instructor: Dr. Eugene Demidenko

This course covers advanced/multivariate large data set analysis with biomedical applications in mind. Familiarity with linear algebra and calculus is required. R language is used for extensive programming.

Today, health data specialists face the analysis of high-volume complex multidimensional data on the daily basis. This course offers cutting edge data science techniques required to succeed and overcome academia and industry demands to stay on the top of the field. I follow the saying: “Examples are the expressway to knowledge.” Much emphasis is paid to graphical presentation, including
statistical animation, – an indispensable tool for the analysis and presentation of the multidimensional data accessible to a layman viewer. This high effort – high gain project–driven course involves three components: theory, real-life data analysis, and R programming for data analysis and its visualization. We will cover the multivariate statistical techniques, such as principal component analysis, canonical correlation, discriminant analysis, hierarchical, hard and soft cluster analysis using Gaussian mixture distribution, multidimensional density estimation. The quality of the classification will be accessed via the misclassification error connected to the ROC curve. Besides classic multivariate statistical techniques, students will learn advanced methods such as basics of image statistics, pharmacokinetics, and tumor growth analysis. We will discuss identification of objects in images through the bivariate kernel density estimation, statistical detection of synergy, analysis of dose-response relationships, and statistical estimation of the cancer treatment effect. An important feature of the course is uncertainty assessment for building parsimonious and reliable statistical models using machine-learning techniques such as cross-validation. The homework will be assigned each week; a team project will be presented at the end of the course as a culminating experience.

Prerequisite: QBS 120, QBS 121, QBS 177 Programming: Course work in Calculus, Linear Algebra, and intermediate programming experience in R.

QBS 125 - Biomedical Informatics

Instructor: Dr. Alfredo Tirado-Ramos

This is a graduate-level course in health informatics designed to teach the fundamental knowledge of informatics theory and practice required to read and, with further study, contribute to the literature. An in-depth overview of current informatics methodologies and technologies will be provided, including electronic health records and health data standards, workflow analysis, system design, as well as applications in clinical trial patient accrual. The basic elements of health information technology and network design rationale will be introduced. Data standardization strategies will be discussed in the context of the clinical enterprise, as well as relevant advanced techniques like data warehousing, computational phenotyping, as well as applications in artificial intelligence and simulation tools for health informatics research. The emphasis will be on theory used in modern applications in biomedical sciences, including genomics, epidemiology, and clinical and health services research. Each session will include a lecture by the instructor as well as discussion of one relevant scientific paper, presented by a student(s). A number of technologies currently available at Dartmouth will be leveraged during class as examples.

Prerequisite: Programming: Basic proficiency in Python.

QBS 126 - Analysis of Densely Collected Longitudinal Data

Instructor: Dr. Nicholas Jacobson

Rapid advances in technology has increasingly allowed for the collection of dense longitudinal data (i.e. data collected using many repeated measurements), and this type of data now abounds within biomedical and social science research (e.g., heart rate sensors, accelerometers, electronic medical record patient visits). A large variety of tools have emerged to model and predict dynamics that evolve over the course of time. The current course will discuss tools focusing on (1) explainability and theory-testing of dynamic processes with applications towards causal inference (e.g. multilevel models, vector autoregressive models, frequency domain analysis, state-space models, person-specific data models, dynamical systems modeling, varying-coefficient models, continuous time models) and (2) maximizing predictive performance (e.g. unique considerations in cross-validation with time-series data, time-series feature engineering, nomothetic and person-specific machine learning models, recurrent neural networks). Given the breadth of the tools in this field, the focus of this course will be primarily applied. Students will need to utilize both R and Python for this course.

Prerequisite: QBS 122 or QBS 124; Permission of Instructor. Programming: Proficiency in R; Proficiency in Python also preferred.

QBS 127 - Medical Care Epidemiology: Principles, Applications and Insights

Instructor: Dr. David Goodman

Students will learn to see how their own and others’ mental models have acted as a barrier to addressing racial, socioeconomic and geographic disparities in health and health care and how applying curiosity, healthy skepticism, systems thinking, and basic epidemiologic principles to both public health and medical care have contributed to advancing our understanding of how to improve health system performance.

(0.5 Unit)

QBS 128/ PH 126 - Statistical Measurement & Analysis for Healthcare Quality Improvement

Instructor: Drs. Brant Oliver, Timothy Burdick, & Andrew Bohn

This course explores the history, theory, and application of Statistical Process Control (SPC) in health care improvement. Topics include development of measures; data collection; graphical display of data; the selection and generation of SPC analyses for continuous measures, proportions, counts and rare events; for both longitudinal
and cross-sectional analyses. Benchmarking, organizational approaches, and multicenter collaborative approaches to improvement measurement are discussed and research study designs for improvement and implementation science are explored. The course emphasizes application of theories and principles through the use of case studies based on ongoing work in the field, individual and small group exercises and interactive discussions with guest presenters. Individual lab exercises, a small group project and an in class final exam are required elements of the course.

Prerequisite: PH 110, 139, 140, QBS142/ PH 117; Permission of Instructor

Cross-Listed as: PH 126

QBS 129/ PH 122 - Survey Research and Methods
Instructor: TBD
This course introduces the basic skills needed to conduct and present survey research. It will focus on two aspects of such research: designing and administering a survey (primary data collection); and accessing, analyzing and reporting on data from publicly available national survey data (secondary data analysis). Topics covered will include survey design, sampling, validity, reliability, data collection, analysis, interpretation and reporting of results. To reinforce practical skills, the course will include weekly computer labs, research in progress sessions to critique draft survey instruments, and a journal club to critically read articles reporting survey results.

Prerequisite: PH 139, PH 140; Permission of Instructor

Cross-Listed as: PH 122

QBS 130 - Foundations of Epidemiology I: Theory and Methods
Instructor: Dr. Diane Gilbert-Diamond
This is the first of a two course sequence of graduate level epidemiology (Foundations of Epidemiology I and II). The two courses are designed to teach the underlying theory of epidemiologic study designs and analysis and prepare students for conduct of epidemiology research. Design of investigations seeking to understand the cause of human disease, disease progression, treatment and screening methods include clinical trials, cohort studies, case-cohort, case-case, nested case-control and case-control designs. Concepts of incidence rates, attributable rate and relative rate, induction and latent periods of disease occurrence, confounding, effect modification, misclassification, and causal inference will be covered in depth.

Prerequisite: None for graduates. Biol 029 for undergraduates. Permission of Instructor

Cross-Listed as: BIOL 72

QBS 131 - Foundations of Epidemiology II: Theory and Methods
Instructor: Dr. Megan Romano
This graduate-level course is the second in a two-part sequence. The two courses are designed to teach the underlying theory of epidemiologic study designs and analysis and prepare students for conduct of epidemiologic research. Building off of concepts covered in Foundations of Epidemiology I, students develop an in-depth understanding of advanced concepts related to confounding, interpreting biomedical primary literature, and epidemiological study design. Concepts related to outbreak investigation, evaluation of screening tests, and assessment of the effects of policies on health are also covered.

Prerequisite: QBS 130/BIOL 072. Permission of Instructor

Cross-Listed as: BIOL 73

QBS 132 - Molecular Biologic Markers in Human Health Studies
Instructor: Dr. Angeline Andrew
This course covers the use of human tissue samples in the context of translational research, including observational epidemiology studies and clinical trials. Lectures focus on study design, bio-specimen collection, biomarker types, kinetics and validation. Discussion will focus on examples of biomarker utilization including identifying susceptible populations, exposure assessment, molecular-genetic characterization of disease phenotype, evaluating drug compliance, monitoring dose-response, testing molecularly targeted therapy efficacy, and predicting prognosis.

Prerequisite: A college-level biology course and QBS 130 or Permission of Instructor

QBS 132.5 - Molecular Biologic Markers in Human Health Studies Lab
Instructor: Dr. Angeline Andrew
This course covers both the computational analysis of data derived from human tissue samples and the biological basis of the features being assessed. The course covers a variety of modern, high-throughput technologies used in translational research. Molecular biologic markers will be studied in the context of both inherited variations, and lifestyle or environmental exposures. Students will practice applying various bio-statistical analytic approaches to molecular data in the context of human health studies using the R programming language.

(0.5 Unit)

Prerequisite: Programming: Beginner workshops in R.

133 - Clinical Epidemiology
Instructor: Dr. Michael Passarelli
This course focuses on the study of medical interventions and the outcomes of disease, expanding on selected concepts covered in Foundations of Epidemiology I & II. Lectures will emphasize study design, statistical methods, collection and interpretation of data, and will be supplemented with readings from the medical literature. Topics include assessment of the performance of diagnostic and screening tests, design of studies for evaluating the efficacy of screening programs for early detection of chronic disease, as well as randomized clinical trials and nonrandomized studies of disease prognosis, therapeutic efficacy, and therapeutic safety. Also covered will be the construction and validation of clinical risk prediction models and statistical approaches for assessing the performance of risk prediction models including discrimination, calibration, and reclassification. Additional topics include pharmacoepidemiology, pharmacogenomics, quality of life measurement, and synthesis of quantitative data for medical decision making such as meta-analysis and cost-effectiveness analysis.

Prerequisite: QBS 130 &131 or instructor permission.

QBS 134 - Topics in Epidemiology
Instructor: Dr. Judith Rees

This course will explore major topics and events in the epidemiology of cancer, infectious diseases, and environment. The course will be taught through a variety of approaches including lecture, discussion, student reading and presentations. Examples from cancer, ID and environmental epidemiology will be used to discuss and reinforce concepts from previous epidemiology classes.

Prerequisite: QBS 130 & QBS 131, Programming: Basic programming knowledge for statistical analysis.

QBS 135/ PH 125 - Intro to Qualitative Methods
Instructor: Dr. Karen Schifferdecker

This course introduces students to qualitative design and methods in public health and health care as a stand-alone approach and in combination with quantitative approaches (mixed methods) for research, evaluation, and needs assessment. Topics include an overview of qualitative traditions, distinguishing between qualitative and quantitative approaches, when to use qualitative or mixed methods designs, how to design a qualitative study including quality standards, common qualitative methods, data collection, qualitative analysis, and presenting results.

(0.5 unit)

Prerequisite: PH 139; PH 100; PH 110; Permission of Instructor.
Cross-Listed as: PH 125

QBS 136 - Applied Epidemiological Methods I
Instructor: Dr. Anne Hoen

Computer laboratory-based course designed to provide hands-on experience performing epidemiological data analyses relevant to the theoretical/conceptual material presented in Foundations of Epidemiology I. Students will complete laboratory exercises using epidemiological study data sets that guide them through descriptive data analyses, hypothesis testing within the context of a range of epidemiological study designs, causal inference methods, addressing confounding and effect modification, and power and sample size calculations. Analyses will be performed in the open-access programming language R. Course will meet once per week for 90 minutes. Note that this is a half-credit course designed to be taken at the same time as Foundations of Epidemiology I.

(0.5 Unit)

Prerequisite: Taken in conjunction with QBS 130. Basic proficiency in R.

QBS 137 - Applied Epidemiological Methods II
Instructor: Dr. Anne Hoen

Computer laboratory-based course designed to provide hands-on experience performing epidemiological data analyses relevant to the theoretical/conceptual material presented in Foundations of Epidemiology II. Students will complete laboratory exercises using epidemiological study data sets that guide them through descriptive data analyses, hypothesis testing within the context of a range of epidemiological study designs, causal inference methods, addressing confounding and effect modification, and power and sample size calculations. Analyses will be performed in the open-access programming language R. Course will meet once per week for 90 minutes. Note that this is a half-credit course designed to be taken at the same time as Foundations of Epidemiology II.

(0.5 Unit)

Prerequisite: QBS 136. QBS 137 is taken in conjunction with QBS 131. Basic proficiency in R.

QBS 138/ PH 131 - Patient Centered Health Communication

Health care decisions are complicated – really complicated – and frequently lack evidence to determine a ‘one best’ course of treatment. As such, patient-centered health communications increasingly are recognized as a critical means to facilitate health care decisions that provide patients with “the care they need, and no less; and the care they want and no more” (Al Mulley, The Dartmouth Center for Health Care Delivery Science). Shared decision making is one strategy to promote better communication with patients and has been described as “the pinnacle” of patient centered care (Barry, Mass General Hospital).
The objectives of this course are to 1) engage you to think broadly about the impact of communication at the patient, institutional, and population level, with a focus on shared decision making; 2) to gain skills and experience related to the design and development of decision support tools and methods; 3) to understand the challenges involved in implementing decision support into practice at the clinical and policy level.

(0.5 Unit)

Cross-Listed as: PH 131
Distributive: Dr. Paul Barr

QBS 139/PH 147 - Overview Advanced Health Services Research w ILE Project
Instructor: Dr. Erika Moen

This course will develop student analytic competencies to the level necessary to conceptualize, plan, carry out, and effectively communicate small research projects in health services or epidemiology. Lectures, demonstrations, and labs will be used to integrate and extend methods introduced in other QBS and TDI courses. The students will leverage synthetic electronic health record data provided by the Analytics Institute at Dartmouth-Hitchcock and publicly available data in classroom lab exercises and course assignments. Many of the labs build on one another, and the aim is that the skills developed in the labs will assist the students with their own student-led projects. The instructors will mentor students as they develop their own analytic projects. Practical skill areas include programming in R, developing an analytic workflow, data visualization, and data structure and management. The main goal of the course is to firmly ground students in the scientific process of observational research.

(1.5 Units)

Prerequisite: QBS: QBS130, QBS121; TDI PH140, PH141
Cross-Listed as: PH 147

QBS 140/PH 121 - Decision & Cost Effectiveness Analysis with ILE project
Instructor: Dr. Anna Tosteson & Dr. James Stahl

This course covers the fundamental principles and mechanics of decision analysis and cost-effectiveness analysis. Topics covered in the course include basics of probability (including Bayes' Theorem), structuring decision problems as decision trees and Markov models, components of preference (value preference, time preference, and risk preference), valuing multidimensional outcomes, evaluating decision trees, sensitivity analysis, value of information, and basic principles of cost-effectiveness analysis. Weekly problem sets are also used to reinforce the concepts presented in class. The course has a weekly lab that involves use of decision analysis software to reinforce concepts presented in class. Labs are also used for development, progress review and discussion of small group decision analysis projects, which culminate in formal presentations the last week of class.

Prerequisite: PH100, PH139, PH140 or Permission of Instructor. Programming language: Students learn TreeAge Software.

Cross-Listed as: PH 121

QBS 141/PH 154 - Determinants of Health Inequities
Instructor: Dr. Alka Dev

This course will explore the root causes of population health -- including social, economic, and political inequities -- and the pathways by which they influence choices, behavior, and decision-making that lead to poor health outcomes. We will also explore the role of structural determinants such as structural bias and racism and the challenges in addressing these through public health action. Students will research evidence-based strategies in addressing health inequities for a particular health issue.

(0.5 Unit)

Cross-Listed as: PH 154

QBS 142/PH 117 - Introduction to Quality Improvement in Health Systems
Instructor: Drs. Tina Foster & Carter

This course develops systems thinking in health care and public health. Students explore various perspectives on healthcare services, including coproduction of health and health care, connections between communities and health systems, and making change in complex system. Students will learn and apply basic improvement skills and will be exposed to a variety of approaches and examples. Implications of health care systems on social inequities and structural bias are a central focus.

(0.5 Unit)
Prerequisite: PH 110, PH 128, PH 139; Permission of Instructor.

Cross-Listed as: PH 117

QBS 143/PH 132 - Dealing with Differences: Communication, Negotiation, and Teamwork
Instructor: TBD

Conflict is inevitable – we negotiate our differences every day, whether we are public health practitioners, clinicians, administrators or researchers. Working effectively in public health and health care depends on our ability to manage conflict effectively, learn how to understand others’ perspectives and interests, and both give and receive feedback. If poorly managed or avoided, conflict reduces productivity, undermines trust and leads to worse outcomes. If viewed as an opportunity to explore the concerns and different perspectives that others may have, working through these differences can enable individuals and teams to come up with better solutions and work more effectively. This elective will teach you the basic principles and skills of how to engage effectively with differences and conflicts, understand the strengths and weaknesses of how you tend to approach conflict in your life, and provide you a framework for thinking about both communication and negotiation. You will have the opportunity to practice negotiating a job offer.

*May not be offered every year

Cross-Listed as: PH 132

QBS 144/PH 115 - Leading Change in Value-Based Public Health and Healthcare
Instructor: Dr. Ben Bulkley

A core aim of TDI is to measurably improve health. In this course, students will develop skills to define and lead important improvement initiatives: design thinking, finance for non-finance professionals, persuasion and leadership. Students will learn strategy, budgeting, resource allocation and financial decision making as needed to build a “business case.” The course weaves in negotiation, persuasion, and team interaction to develop valuable leadership skills. Students will hear from important leaders from finance, issue advocacy, and public health. Each student will define a real-world project inspired through design thinking with the intent of implementing it in a community; over eight weeks each student will construct a persuasion case that includes the “business case” and conclude the process by pitching to a community leader.

Prerequisite: PH 110, PH 100, PH 140, PH 139 (or equivalent introductory epidemiology/biostatistics course); Permission of Instructor.

Cross-Listed as: PH 151

QBS 145/PH 151 - Environmental Health Sciences and Policy
Instructor: Drs. James McLellan & Karla Armenti

In this course students explore major environmental and occupational health issues by applying basic tools of environmental science including epidemiologic methods, toxicology and risk assessment. Students examine the relationship between environmental and occupational exposures and human disease, emphasizing the interface of science and policy, the role of regulatory agencies and environmental risk communication. Topics include air and water quality, hazardous waste, radiation, heavy metals, food safety, environmental pathogens, and clinical occupational medicine. Teaching tools include lectures, audiovisual media, case studies, guest experts, and assigned readings/exercises.

(0.5 Unit)

Prerequisite: PH 110, PH 100, PH 140, PH 139 (or equivalent introductory epidemiology/biostatistics course); Permission of Instructor.

Cross-Listed as: PH 151

QBS 146 - Foundations of Bioinformatics I
Instructor: Dr. Michael Whitfield

The sequencing of the complete genomes is transforming biology into an information science. This means the modern biologist must possess both computational skills and biological understanding to mine these data for biological insights. Taught mainly from the primary literature, topics will include genome sequencing, genome re-sequencing, high-throughput gene expression, single cell ‘omics, epigenetics, proteomics and systems biology. The course will meet for 3 hrs per week.

Prerequisite: BIOC101 or equivalent Biology Coursework, Basic knowledge of Python programing is helpful but not required, Permission of Instructor

Cross-Listed as: GENE 146

QBS 147 - Genomics: From Data to Analysis
Instructor: Dr. Olga Zhaxybayeva

Massive amounts of genomic data pervade 21st century life science. Physicians now assess the risk and susceptibility of their patients to disease by sequencing the patient’s genome. Scientists design possible vaccines and treatments based on the genomic sequences of viruses and bacterial pathogens. Better-yielding crop plants are assessed by sequencing their transcriptomes. Moreover, we can more fully explore the roots of humanity by comparing
our genomes to those of our close ancestors (e.g., Neanderthals, Denisovans). In this course, students will address real-world problems using the tools of modern genomic analyses. Each week students will address a problem using different types of genomic data, and use the latest analytical technologies to develop answers. Topics will include pairwise genome comparisons, evolutionary patterns, gene expression profiles, genome-wide associations for disease discovery, non-coding RNAs, natural selection at the molecular level, and metagenomic analyses.

Prerequisite: N/A.

Cross-Listed as: BIOL 47/147, EEES 147

QBS 175 - Foundations of Bioinformatics II
Instructor: Dr. Chris Bailey-Kellogg

This course seeks to provide broad exposure to some important computational challenges and approaches in bioinformatics: analyzing biomolecular sequences (what genes encode an organism, and how are genes related across organisms?), structures (what do the proteins corresponding to these genes look like, and what does that tell us about how they work?), and functions (what do these things do, and how do they interact with each other in doing it?). The course is application-driven, but focused on the underlying algorithms and information processing techniques, employing approaches from search, optimization, pattern recognition, and so forth. In particular, the course takes the approach of “open up the hood and tinker” or even “rebuild the engine”. Topics are motivated by important biological problems for which there generally already exist tools that one could use. But we actually dig in and learn how those tools work, implementing in Python core components, variations, etc. By analogy, rather than teaching you how to use a search engine, this course would have you implement PageRank, the fundamental algorithm that spawned Google.

Prerequisite: COCS 1 & COSC 10. COSC 30 is recommended. CS 1 covers python and an intro to programming techniques. CS 10 covers a wide range of algorithmic approaches and data structures (e.g., trees and recursion; graphs and search; etc.). Since assignments are in python, students should be well familiar with it or a similar-enough language that they can quickly just change syntax. Equally importantly, they should be comfortable with the general algorithmic and data structure concepts covered in standard second-level CS courses like CS 10.

Cross-Listed as: COSC 175, COSC 75

QBS 177 - Methods of Statistical Learning for Big Data
Instructor: Dr. Jiang Gui

This course provides an introduction to algorithms used in data science with applications to biomedical and health data science. The goal of this course is to present an overview of many of the approaches used for big data focusing on analytical methods and algorithms. The course assumes that students have some knowledge of R. Students will be provided with 2 large data sets. Lectures on data reduction, classification, and optimization will request students complete homework for these datasets. Special attention will be given to students’ active learning by programming in a statistical software package R.

Prerequisite: MATH 40, QBS 120 and QBS 121 or Permission of Instructor. Calculus, Linear Algebra. Programming: Intermediate proficiency in R.

Cross-Listed as: MATH 177

QBS 180 - Data Visualization
Instructor: Dr. Ramesh Yapalparvi

Biomedical and health data visualization is an important and necessary step of preliminary statistical analysis. "A picture is worth a thousand words" is the impetus of this course. This course will teach best practices for visualizing data, including exploratory statistics and effective communication of statistical analysis. Data visualization is a key component that all data scientists’ needs to be fluent in. Students will become competent users of Tableau, R graphics and R-Shiny. Real-life biomedical and health related data will be used thought-out the course.

(0.5 Unit)

Prerequisite: N/A

QBS 181 - Data Wrangling
Instructor: Dr. Carly Bobak

Data wrangling is the process of mapping and transforming data into new formats for the increased ease and efficiency of downstream analysis. In this course, students will learn about the different types of data structures and formats, and how to create, merge, subset, and manipulate these structures. Students will wrangle data using excel, SQL, and R programming as appropriate, learn the principles of tidy data and the tidy verse, learn string processing with regular expressions, and have an introduction to web scraping and API’s for data collections.

Prerequisite: Linear Algebra. QBS 103 or Intermediate proficiency in R.

QBS 185 - QBS Masters Capstone Experience
Instructor: Dr. Jennifer A. Emond, Dr. Aurora Drew, & Dr. Jeremiah Brown

*Only open to QBS Masters students. Effective for Fall 2021 matriculants and beyond.

The goal of the capstone is to enable students to refine their skill set as they work on a research or applied data science, epidemiology or medical informatics project. The
capstone also provides training in critical professional skills including scientific writing, presentation skills, and translating the findings of a research or applied project to key stakeholders who may not have expertise in the domain. Preparation for the capstone project begins in August of the first year and culminates in a written white paper and presentation at the end of the summer term.

Note: Students will enroll in QBS 185.5 Capstone Preparation (0.5 unit) in the winter and spring quarters preceding the summer capstone.

Students may select from three tracks for their capstone. Tracks differ based on the summer term project. The pre-capstone work is required for all tracks. Students are expected to finalize their track selection in April. Tuition & Fees apply to all tracks.

- **Individual Project with Dartmouth PI:** Students will match with an investigator at Dartmouth and will work on a research or applied project under the PI’s mentorship; the project may be supervised by a postdoctoral research fellow or doctoral candidate in the PI’s lab. For this option, residency at Dartmouth is required. Students are encouraged to submit a conference abstract in the fall on their capstone project.

- **Individual Project-Based External Experience:** Students will complete an external internship. On-site internships with supervision may be with a for-profit company, governmental agency, non-profit organization, or another academic institution. For this option, residency at Dartmouth is not required.

- **Group Project:** Students will work in small groups (2-3 students each) on a novel project of their own choosing. Students may develop their research project using publicly available data. QBS faculty will assist students in defining feasible projects and creating timelines and division of labor. QBS faculty and or a Dartmouth PI will oversee the work. For this option, residency at Dartmouth is required.

- Students will work on their capstone full-time (3 units) during the summer term, whether in residence at Dartmouth or at an external company/institution.

- **Capstone offered during Summer only. Full Tuition & Fees apply**

**International Students enrolled in QBS 185 are eligible to apply for Curricular Practical Training (CPT) to meet coursework requirements.

**Students can be paid or unpaid for external experiences. QBS Tuition & Fees still apply.**

(3 Units)

Prerequisite: QBS 185.5 (W & S) in the winter and spring quarters preceding the summer capstone. Programming: QBS 101 (F,W,S) preceding the summer capstone.

Completion of all core courses for your declared concentration: Health Data Science, Epidemiology, or Medical Informatics

**QBS 185.5 - QBS MS Capstone Preparation Course**

Instructor: Dr. Jennifer A. Emond, Dr. Aurora Drew, & Dr. Jeremiah Brown

Only open to QBS Masters students. Effective for Fall 2021 matriculants and beyond.

Pre-requisites: Completion of the August on-boarding session for the MS Capstone series.

This series of courses is to prepare students for their capstone research or applied project that is completed in the summer. Topics will include professional development, programming, writing and visual communication of research findings, presentation skills, and ethics in health and biomedical research.

Note: Students will enroll in QBS 185 Capstone Experience (3 units) for the summer capstone.

(0.5 Unit)

Prerequisite: Completion of the August on-boarding session for the MS Capstone series.

**QBS 187 - QBS PhD Student Internship**

Instructor: Dr. Kristine Giffin, Arranged

PhD students pursuing an internship after the Spring term of their second year will need to register for this course. This course seeks to provide opportunities for field experience and additional training to strengthen understanding of core concepts of the QBS academic curriculum and prepare students for career placement. Qualifying Exam completion is a prerequisite to enroll in this course. Students must be in good academic standing to be eligible. Enrollment in this course should not impact the time towards PhD completion. Internship enrollment is not an appropriate reason to extend PhD completion beyond 5 years. Students can continue to engage in research during this internship but agreement to do so must be arranged with the student's primary PI(s). Enrollment in this course is limited to 2 times/2 quarters. This course is worth 3 units and is only available to QBS PhD students. Please email Dr. Kristine Giffin for more information. If a visa holder and registering for CPT, please note that the start and end dates of the internship must strictly coincide with start and end dates of the
chosen quarters(s) or otherwise be discussed prior with QBS Administration.

(3 Units)

Prerequisite: N/A, Successful Completion of the Qualifying Exam

QBS 192 - Health Informatics
Instructor: Dr. Inas Kayal

Our health is everywhere. It is affected by how, where, and who we live, work & play with (i.e. biological, behavioral, social, and environmental factors). The explosion of digitization of data captured both outside 'in the wild' and within the healthcare delivery system, allows us to understand and address the many factors affecting the complexity of our health. Today, health & healthcare data is continuously being generated by healthcare delivery systems, organizations, or users and can be accessed through devices, databases, or the web (e.g., APIs). Deriving information and knowledge to improve and maintain health requires health informatics. Data science plays an active role as a profession and within its research efforts in informing and developing all aspects of health informatics: data capture, data storage, and data analytics. Students will gain experience with Python. Prior experience with Python is not necessary, but students should have some prior programming and statistics experience. The goal of this course is two-fold: first, to learn about the latest topics in health informatics and second, to design and develop a health informatics project. Special topics in health informatics will be introduced through lectures and primary literature. These topics will be organized into 4 themes:

1.) Applications Theme: exploring several key current applications of health informatics
2.) Data Capture Theme: learning about data capture technologies and standards
3.) Data Storage Theme: presenting data formats, databases, and issues of security & privacy
4.) Data Analytics Theme: a brief introduction to the data analytics cycle and special topics of visualization and analytics methodologies.

Prerequisite: Prior programming and statistical experience preferable

QBS 193 - Independent Journal Club
Instructor: Dr. Kristine Giffin & Faculty

Offered all quarters, this independent Journal Club for QBS students can count as a required journal club credit. Prior to the start of the quarter, the arrangements and a course outline are to be developed between the student and a QBS or other approved faculty who will serve as the instructor. This outline is to be submitted to and be approved by the QBS Administration a week before the end of the drop/add period of the quarter. The student and faculty member will identify topics, develop a timeline to review literature, and set goals that are to be met by the end of the quarter. The student must meet with the instructor at least 1-1.5 hours each week in addition to conducting 3 hours per week of out of classroom work (i.e. readings, deliverables, etc). This information must be reflected in the proposal. The faculty member is responsible for tracking and evaluating the student's progress in order to provide a grade to the QBS Administration at the end of the quarter. For more information please email Dr. Kristine Giffin.

(0.5 Unit)

Prerequisite: Consult Faculty Advisor

QBS 194 - Biostatistics Journal Club
Instructor: Dr. Pablo Martinez-Camblor

The objective of this course is to discuss selected academic papers. Participants will propose topics of interest and recommend among one to four papers (on the same topic) to discuss. Topics will be related with new or classical biostatistical procedures. Both technical and practical aspects of the considered procedures will be opened to discussion. Controversial methodologies of applied clinical papers could be also welcomed. The journal club format is an informal structure and students are free to choose the way they present their proposed topic.

(0.5 Unit)

Prerequisite: College-level statistics course work.

QBS 195 - Independent Study
Instructor: Dr. Kristine Giffin & Faculty

Independent study in QBS is structured to allow students to explore subject matter and enhance their knowledge in QBS related fields. This independent study for QBS students will count as an elective credit and is offered during each academic quarter. The arrangements and a course outline are to be developed between the student and a QBS faculty member prior to the start of the term as well as approved by QBS Administration a week before the end of the drop/add period. The proposal should reflect 3.3 hours of instruction per week and a minimum of 6.6 hours of student work per week for the entirety of the quarter. The student and faculty will work together to structure the study program or project and set goals that are to be met by the end of the term. Please clearly define the framework for the project including identifying goals,
timeline of expectations per week, and deliverables. The course of study may include, but is not limited to, literature review, seminar/workshop attendance & development, online course material, small projects, and presentations related to the specific field being studied. The faculty member is responsible for tracking and evaluating the student's progress in order to provide a grade to QBS Administration at the end of the quarter. Please email Dr. Kristine Giffin for more information.

Prerequisite: Consult Faculty Advisor

**QBS 196 - Supervised Teaching in QBS**

Instructor: Dr. Kristine Giffin

This course is required for all QBS PhD graduate students and based on the assertion that an essential element of graduate education is the experience gained in teaching other students. Such teaching experience is of particular relevance to students interested in academic careers. Students will conduct discussion sessions, hold office hours, and provide assistance to the instructor as required in QBS courses under the supervision of the course instructor(s). The faculty and student teaching assistant may work very closely to develop assignments. While not mandatory, in some cases, the students are encouraged to present lectures for which they receive detailed feedback on their teaching style. The instructor will guide them on how to teach the material if required, how to run a discussion, how to evaluate student responses, and grading procedures. Performance will be monitored throughout the term and appropriate evaluation, coupled with detailed suggestions for improvement, will be provided. This course is not open to undergraduates. Please email Dr. Kristine Giffin for more information.

Prerequisite: Successful completion of the course being TA'd or permission of course instructor.

**QBS 197 - Graduate Research in Quantitative Biomedical Sciences I**

Instructor: Dr. Kristine Giffin & QBS Faculty

An original individual, experimental, or theoretical investigation beyond the undergraduate level in quantitative biomedical sciences. This course is open only to QBS PhD graduate students prior to passing their qualifying exam; it may be elected for credit more than once and is offered all quarters. Students either in research rotations or dissertation labs are required to register every quarter, including summer. Advanced research is to be registered for post-qualifier examination. Please email Dr. Kristine Giffin for more information.

(1 unit)

Prerequisite: N/A. QBS PhD Students Only.

**QBS 198 - Graduate Research in Quantitative Biomedical Sciences II**

Instructor: Dr. Kristine Giffin & QBS Faculty

An original individual, experimental, or theoretical investigation beyond the undergraduate level in quantitative biomedical sciences. This course is open only to QBS PhD graduate students prior to passing their qualifying exam; it may be elected for credit more than once and is offered all quarters. Students either in research rotations or dissertation labs are required to register every quarter, including summer. Advanced research is to be registered for post-qualifier examination. Please email Dr. Kristine Giffin for more information.

(2 Units)

Prerequisite: N/A. QBS PhD Students Only.

**QBS 199 - Graduate Research in Quantitative Biomedical Sciences III**

Instructor: Dr. Kristine Giffin & QBS Faculty

An original individual, experimental, or theoretical investigation beyond the undergraduate level in quantitative biomedical sciences. This course is open only to QBS PhD graduate students prior to passing their qualifying exam; it may be elected for credit more than once and is offered all quarters. Students either in research rotations or dissertation labs are required to register every quarter, including summer. Advanced research is to be registered for post-qualifier examination. Please email Dr. Kristine Giffin for more information.

(3 Units)

Prerequisite: N/A. QBS PhD Students Only.

**QBS 271 - Advanced Epidemiology Journal Club**

Instructor: Epidemiology Faculty

Faculty and topics in this journal club change based on student interest and it is not offered every year. While format may change based on instructor, typically, in this advanced epidemiology journal club, students will select recent and high-impact peer-reviewed journal articles which will be discussed in class. These articles can include research studies or methodological papers. Each week, students will take turns presenting on an article and will be responsible for leading an in-class discussion for the selected paper. In addition to these presentations, students may be asked to submit a short, written commentary on each week’s featured article. Students will be encouraged to choose articles that are relevant to their research interests.

(0.5 Unit)
Prerequisite: Course prerequisites include QBS 130 and QBS 131. Equivalent courses may be accepted with instructor permission.

QBS 270 - Quantitative Biomedical Sciences Journal Club

Instructor: Janet Peacock (Fall), Dr. Jiang Gui (Winter), Dr. Nicholas Jacobson & Dr. Alfredo Tirado-Ramos (Spring)

All first year QBS PhD students are required to enroll in the Quantitative Biomedical Sciences Journal Club except in the Summer quarter; however it is encouraged that QBS PhD students attend this journal club in subsequent years. An essential element of scientific training is in the critical analysis and communication of experimental research in an oral format.

- Fall: Epidemiology - Dr. Janet Peacock

This course emphasizes critical evaluation of epidemiological studies and the development of effective presentation skills. Students will gain exposure to a breadth of epidemiological methodologies while examining classical and current epidemiological studies within public health and biomedical research. Class will meet weekly. Each week, all students will read one peer-reviewed, published study and an additional article or other paper for supplemental reading. One student will present on the published study, and we will all discuss the study as well as the relevance of the additional reading. Discussion will include an assessment of study components as related to study design, statistical analyses, inference and interpretation, bias, generalizability, and implications. Students will be asked to specifically discuss components of the study (e.g., to restate what one figure or table presents).

First-year doctoral students are required to present twice during the quarter.

- Winter: Biostatistics - Dr. Jiang Gui

This course discusses new findings and applications in biostatistics and data science. The goal of the course is to develop critical thinking in biostatistical methodology. Starting the second week of the term, students will present two related paper with an emphasis on biostatistical methods and the rest of the class will submit a short written summary (1-2 pages) that covers the paper motivation, approach, results, strengths and weaknesses. During class, a student will give a 35-minute presentation on their papers followed by 10 minutes of class discussion. In addition to reading and summarizing their selected paper for the week, all students are expected to review the two presented papers prior to class. Time permitting, additional topics for group discussion related to publishing your own research will include journal selection, impact factors, the peer review process, and authorship criteria.

All (0.5 unit)

Prerequisite: N/A.

QBS 297 - Advanced Graduate Research in Quantitative Biomedical Sciences I

Instructor: Dr. Kristine Giffin & QBS Faculty

An original individual, experimental, or theoretical investigation beyond the undergraduate level in quantitative biomedical sciences. This course is open only to QBS PhD graduate students, after passing their qualifying exam; it may be elected for credit more than once and is offered all quarters. Students are required to register every quarter, including summer. Advanced research is to be registered for post-qualifier examination. Please email Dr. Kristine Giffin for more information.

(1 Unit)

Prerequisite: QBS PhD Students Only. Successful Completion of the QBS PhD Qualifier Exam

QBS 298 - Advanced Graduate Research in Quantitative Biomedical Sciences II

Instructor: Dr. Kristine Giffin & QBS Faculty

An original individual, experimental, or theoretical investigation beyond the undergraduate level in quantitative biomedical sciences. This course is open only to QBS PhD graduate students, after passing their qualifying exam; it may be elected for credit more than once and is offered all quarters. Students are required to register every quarter, including summer. Advanced
research is to be registered for post-qualifier examination. Please email Dr. Kristine Giffin for more information.

(2 Units)
Prerequisite: QBS PhD Students Only. Successful Completion of the QBS PhD Qualifier Exam

QBS 299 - Advanced Graduate Research in Quantitative Biomedical Sciences III
Instructor: Dr. Kristine Giffin & QBS Faculty

An original individual, experimental, or theoretical investigation beyond the undergraduate level in quantitative biomedical sciences. This course is open only to QBS PhD graduate students, after passing their qualifying exam; it may be elected for credit more than once and is offered all quarters. Students are required to register every quarter, including summer. Advanced research is to be registered for post-qualifier examination. Please email Dr. Kristine Giffin for more information.

(3 Units)
Prerequisite: QBS PhD Students Only. Successful Completion of the QBS PhD Qualifier Exam

The Dartmouth Institute

To view The Dartmouth Institute courses, click here (p. 829).

ECS- The Dartmouth Institute

PH 201 - Public Health Foundations
Instructor: Sharmin Hossain

Public health is what we do as a society collectively to assure the conditions in which people can be healthy. This course introduces students to the broad landscape of public health and goes a step further to population health in discussing partnerships between health care systems, government agencies and other organizations to improve the health of the public. Modules in this asynchronous course introduce students to the profession and science of public health, communication with diverse audiences, factors related to human health, and the structure of public health and health care systems.

0.25 Dartmouth units; (CT, NC)

*Core Requirement for Residential MPH & MS (PH 110) and Hybrid MPH (PH 201). These two courses are cross listed.

Prerequisites: None

PH 209 - Intro to Improvement Methods
Instructor: Tina Foster, Daisy Goodman and Trinidad Tellez

Students will be introduced to healthcare quality improvement and be able to describe historical development of the movement to improve quality, safety and value in healthcare. Students will use improvement methods to reduce disparities and explore the impact of bias and structural inequality in creating disparities in health care quality. Students will explore the concept of co-production of health and discuss the role of leadership in enhancing/facilitating co-production at various levels.

0.40 Dartmouth units; (HP, P, LP, NC)

Required for Online MPH

PH 129 - Advanced Topics in Quality Improvement
Instructor: Tina Foster and Brant Oliver

This course addresses advanced topics in improvement science and coproduction and explores implementation science, value creation in health care, coaching, and leadership/change management. Students will have the opportunity to apply skills from prior courses (PH 117, 126, & 120 (coproduction)) to case studies and other learning opportunities related to improving health and health care services. Content for the course will include both US-based and international material.

1.0 Dartmouth Units (HP, P, LP, NC)

* Core Requirement for LPMR

Prerequisites: PH 110, PH 117, PH 126, PH 139, PH 140 or instructor permission

PH 120 - Health Coproduction
Instructor: Glyn Elwyn

Coproduction has been defined as the interdependent work of users and professionals to design, create, develop, deliver, assess and improve the health of individuals and populations, through mutual respect and partnership, that invites participants’ strengths and expertise. At the core, coproduction relies on shared decision making, and to operationalize the approach, a learning health system approach is advocated.

0.50 Dartmouth units; (HP, P, LP, NC)

Prerequisites: PH 110, PH 117 and PH 128

PH 205 - Bio-Psycho-Social Determinants of Health Equity
Instructor: Manish Mishra

This course will explore the biological, psychological, sociological roots of population health -- including economic and political inequities. These considerations will be linked to the pathways by which they influence
choices, behavior, and decision-making that lead to poor health outcomes. We will also explore the role of cognitive bias, structural bias, racism and poverty, as they contribute to health disparities. Students will use these principles in conjunction with standard health models to reflect on readings and health inequities for a particular health issue.

0.4 Dartmouth units; (HP, P, LP, NC)

Required for Online MPH

PH 100 - Inferential Methods in Epidemiology and Public Health I

Instructor: Rebecca Emeny

Students will learn to recognize the purpose, structure, strengths and weaknesses of common study designs: randomized controlled trials, systematic reviews, and observational studies (cohort and case-control). Weekly journal clubs establish a critical assessment framework to determine the relevance and validity of published studies. Students apply this knowledge through collaboratively writing a systematic review proposal, which includes developing a research question, conducting a preliminary literature search, and considering appropriate inclusion/exclusion criteria.

0.50 Dartmouth units; (HP, P, LP, NC)

*Core Requirement for Residential MPH & MS

Prerequisites: None

PH 111/QBS 127 - Medical Care Epidemiology: Principles, Applications and Insights

Instructor: David Goodman

Students will learn to see how their own and others’ mental models have acted as a barrier to addressing racial, socioeconomic and geographic disparities in health and health care and how applying curiosity, healthy skepticism, systems thinking, and basic epidemiologic principles to both public health and medical care have contributed to advancing our understanding of how to improve health system performance.

0.25 Dartmouth units; (HP, P, LP, NC) This course is cross-listed with QBS 127.

*Core Requirement for Residential MPH and MS

Prerequisites: PH 110, PH 128

PH 112 - Medical Care & the Corporation

Instructor: Paul Gardent and Michael Zubkoff

This course examines the critical issues facing business leaders as they approach and finance health benefits for employees, manage cost, and choose the best strategy for recruiting and retaining a productive workforce. Students will build an understanding of the structure, economics and dynamics of the employer based health care system from the perspective of corporate leaders, learn how the ACA has fundamentally changed the strategic landscape and comprehend alternative approaches to help businesses cope with these strategic issues.

Please note TDI enrollment in MCC is limited.

1.0 Dartmouth unit; (HP, P, LP, NC). Enrollment in this course is officially in the fall term, although this course starts during the summer term. This course is cross-listed with Tuck School of Business course MCC.

Prerequisites: None

PH 113 - Health Policy

Instructor: Craig Westling, Jared Rhoads

The course begins with an investigation into how health policy is shaped by legislation, regulations and the courts. After understanding the process, each student chooses a policy topic they care about and begins to build a persuasive advocacy strategy for making the change they want to see happen. The course then delves deeply into theories of change and effective communication and negotiation with stakeholders. Each course assignment is a piece of the final project, which is a written policy advocacy strategy that includes: an analysis of a policy issue, a summary of relevant research, a stakeholder analysis, an advocacy campaign plan, a metrics-based evaluation plan, and prepared written and oral communication points that target different audiences.

1.0 Dartmouth units; (HP, P, LP, NC)

Prerequisites: PH 110, PH 100, PH 128, PH 139 and PH 154

PH 115/QBS 144 - Leading Change in Value-Based Public Health and Healthcare

Instructor: Ben Bulkley

A core aim of TDI is to measurably improve health. In this course, students will develop skills to define and lead important improvement initiatives. Students will explore design thinking to inspire a project, budgeting, resource allocation and financial decision making to build a “business case,” as well as negotiation, persuasion and team interaction to develop valuable leadership skills. Students will hear from important leaders from finance, issue advocacy, and public health. Each student will define a real-world project with the intent of implementing it in a community; over eight weeks students will construct a persuasion case and conclude the process by pitching to a community leader.

1.0 Dartmouth units; (HP, P, LP, NC) This course is cross-listed with QBS 144.

*Core Requirement for Residential MPH

Prerequisites: PH 110 and PH 128
PH 117/QBS 142 - Introduction to Quality Improvement in Health Systems
Instructor: Tina Foster and Jocelyn Carter
This course develops systems thinking in health care and public health. Students explore various perspectives on healthcare services, including coproduction of health and health care, connections between communities and health systems, and making change in complex system. Students will learn and apply basic improvement skills and will be exposed to a variety of approaches and examples. Implications of health care systems on social inequities and structural bias are a central focus.
0.50 Dartmouth units; (HP, P, LP, NC) This course is cross-listed with QBS 142.
*Core Requirement for Residential MPH and MS
Prerequisites: PH 110, PH 128 and PH 139

PH 119 - Decision and Cost-effectiveness Analysis with ILE Project
Instructor: Anna Tosteson and James Stahl
This course includes all the class meetings and weekly assignments for PH 121, but students in PH 119 complete an independent practicum project and paper instead of a small group project. Approval of a practicum project by the course instructors is required before a student can pre-register for PH 119.
1.5 Dartmouth units; (HP, P, LP, NC)
Prerequisites: PH 100, 139, 140, and permission from instructor.

PH 121/QBS 140 - Decision and Cost Effectiveness Analysis
Instructor: Anna Tosteson, James Stahl
This course covers the fundamental principles and mechanics of decision analysis and cost-effectiveness analysis. Topics covered in the course include basics of probability (including Bayes’ Theorem), structuring decision problems as decision trees and Markov models, components of preference (value preference, time preference, and risk preference), valuing multidimensional outcomes, evaluating decision trees, sensitivity analysis, value of information, and basic principles of cost-effectiveness analysis. Weekly problem sets are also used to reinforce the concepts presented in class. The course has a weekly lab that involves use of decision analysis software to reinforce concepts presented in class. Labs are also used for development, progress review and discussion of small group decision analysis projects, which culminate in formal presentations the last week of class.
1.0 Dartmouth units; (HP, P, LP, NC) This course is cross-listed with QBS 140.

PH 122/QBS 129 - Survey Research Methods
Instructor: TBD
This course introduces the basic skills needed to conduct and present survey research. It will focus on two aspects of such research: designing and administering a survey (primary data collection); and accessing, analyzing and reporting on data from publicly available national survey data (secondary data analysis). Topics covered will include survey design, sampling, validity, reliability, data collection, analysis, interpretation and reporting of results. To reinforce practical skills, the course will include weekly computer labs, research in progress sessions to critique draft survey instruments, and a journal club to critically read articles reporting survey results.
1.0 Dartmouth units; (HP, P, LP, NC) This course is cross-listed with QBS 129.
Required for MS
Prerequisites: PH 139, 140

PH 124 - Advanced Topics in Quality Improvement with ILE Project
Instructor: Tina Foster and Brant Oliver
This course includes all the components, class meetings, and assignments of the PH 129 Advanced Topics in Quality Improvement course, plus a project that will allow students to dive -- individually -- more deeply into one or more topics, ideally in conjunction with an existing clinical or public health site.
1.5 Dartmouth units; (HP, P, LP, NC)
Prerequisites: PH 110, PH 117, PH 126, PH 139, PH 140 or instructor permission

PH 125/QBS 135 - Introduction to Qualitative Methods for Public Health & Healthcare Studies
Instructor: Karen Schifferdecker
This course introduces students to qualitative design and methods in public health and health care as a stand-alone approach and in combination with quantitative approaches (mixed methods) for research, evaluation, and needs assessment. Topics include an overview of qualitative traditions, distinguishing between qualitative and quantitative approaches, when to use qualitative or mixed methods designs, how to design a qualitative study including quality standards, common qualitative methods, data collection, qualitative analysis, and presenting results.
0.50 Dartmouth units; (HP, P, LP, NC) This course is cross-listed with QBS 135.
*Core requirement for Residential MPH
Prerequisites: PH 100, PH 110 and PH 139

PH 126/QBS 128 - Statistical Measurement & Analysis for Healthcare Quality Improvement
Instructor: Brant Oliver, Tim Burdick and Andrew Bohm

This course explores the history, theory, and application of Statistical Process Control (SPC) in health care improvement. Topics include development of measures; data collection; graphical display of data; the selection and generation of SPC analyses for continuous measures, proportions, counts and rare events; for both longitudinal and cross-sectional analyses. Benchmarking, organizational approaches, and multicenter collaborative approaches to improvement measurement are discussed and research study designs for improvement and implementation science are explored. The course emphasizes application of theories and principles through the use of case studies based on ongoing work in the field, individual and small group exercises and interactive discussions with guest presenters. Individual lab exercises, a small group project and an in class final exam are required elements of the course.

1.0 Dartmouth units; (HP, P, LP, NC) This course is cross-listed with QBS 128.

*Core Requirement for LPMR

Prerequisites: PH 110, PH 139, PH 140 and PH 117

PH 130 - Practical Approaches for Today's Health Care Ethics Challenges (Elective Short Course)
Instructor: William A. Nelson

This highly interactive, inter-professional elective emphasizes critical thinking, real-world application, and decision-making to clinical, research, public health, and organizational ethics issues. Students will build practical ethical reasoning skills by applying ethics principles through case study discussions regarding challenges faced by today’s health care professionals. Students will learn to use a systematic ethical analysis process to recognize, respond to, and prevent ethical conflicts to foster an ethically aligned organization.

0.50 Dartmouth units; (HP, P, LP, NC)

Prerequisites: PH 110 and PH 128

PH 131/QBS 138 - Patient Centered Health Communication
Instructor: Paul Barr

Health care decisions are complicated – really complicated – and frequently lack evidence to determine a ‘one best’ course of treatment. As such, patient-centered health communications increasingly are recognized as a critical means to facilitate health care decisions that provide patients with “the care they need, and no less; and the care they want and no more” (Al Mulley, The Dartmouth Center for Health Care Delivery Science). Shared decision making is one strategy to promote better communication with patients and has been described as “the pinnacle” of patient centered care (Barry, Mass General Hospital).

The objectives of this course are to 1) engage you to think broadly about the impact of communication at the patient, institutional, and population level, with a focus on shared decision making; 2) to gain skills and experience related to the design and development of decision support tools and methods; 3) to understand the challenges involved in implementing decision support into practice at the clinical and policy level.

0.50 Dartmouth units; (HP, P, LP, NC) This course is cross-listed with QBS 138.

*Core Requirement: None

PH 139 - Measuring Health
Instructor: Brenda Sirovich

PH139 will develop strong foundations in introductory analytic epidemiology and cultivate the ability to communicate epidemiologic concepts in plain language. Analytic epidemiology, the science of investigating patterns and determinants of disease and its consequences in populations, is foundational to any effort to improve health or healthcare. Through published studies and hands-on data analysis, students will examine, derive, and interpret measures of disease (summary outcome measures including means, medians, risks and rates; prevalence, incidence, and mortality), its determinants and consequences (measures of effect including difference, risk ratios, attributable risk, population attributable risk, and PAR%), and the role of chance (statistical inference, including p-values and confidence intervals, hypothesis testing, Type I and Type II error) in interpreting these relationships.

0.65 Dartmouth Units: (HP, P, LP, NC)

*Core Requirement for Residential MPH and MS

Prerequisites: None

PH 140 - Applying Health Statistics
Instructor: Brian Lucas

Students will critically appraise studies of analytic epidemiology. After classifying a study’s design and acknowledging its inherent limitations, students will trace what outcome measures (e.g., risks) and effect measures (e.g., risk ratios) were used to describe the problem and assess impact. Students will appraise the choice of these numbers, how the authors explained them, and whether their conclusions were justified. Weekly laboratory
sessions allow students to conduct their own analyses with Stata® on real-world datasets.

1.5 Dartmouth units; (HP, P, LP, NC)

*Core Requirement for Residential MPH and MS

Prequisites: PH 110, PH 139

PH 141 - From Observational Data to Valid Inference: Regression and Other Approaches

Instructor: Brenda Sirovich

In the quest to understand and improve population health and healthcare, observation is essential – and yet when we observe the world, the true nature of cause, effect, and association can be obscured. To see beyond influences that disguise the truth, investigators need expertise and ingenuity – to use multivariable statistics, and understand when their use is indicated, and adequate, to address a question. In PH 141, students will gain proficiency – in study design and analysis, interpretation and communication – to capably address threats to inferential validity in epidemiologic and other observational data, and apply these capabilities to questions about health, disease, and healthcare.

1.5 Dartmouth units; (HP, P, LP, NC)

Core Requirement for MS

Prequisites: PH 139, PH 140

PH 147/QBS 139 - Advanced Health Services Research with ILE Project

Instructor: Erika Moen

This course will develop student analytic competencies to the level necessary to conceptualize, plan, carry out, and effectively communicate small research projects in health services or epidemiology. Lectures, demonstrations, and labs will be used to integrate and extend methods introduced in other QBS and TDI courses. The students will leverage synthetic electronic health record data provided by the Analytics Institute at Dartmouth-Hitchcock and publicly available data in classroom lab exercises and course assignments. Many of the labs build on one another, and the aim is that the skills developed in the labs will assist the students with their own student-led projects. The instructors will mentor students as they develop their own analytic projects. Practical skill areas include programming in R, developing an analytic workflow, data visualization, and data structure and management. The main goal of the course is to firmly ground students in the scientific process of observational research.

0.50 Dartmouth units; (HP, P, LP, NC) This course is cross-listed with QBS 139.

Core Requirement: None

PH 151/QBS 145 - Environmental Health Sciences and Policy

Instructor: Robert McLellan and Karla Armenti

In this course students explore major environmental and occupational health issues by applying basic tools of environmental science including epidemiologic methods, toxicology and risk assessment. Students examine the relationship between environmental and occupational exposures and human disease, emphasizing the interface of science and policy, the role of regulatory agencies and environmental risk communication. Topics include air and water quality, hazardous waste, radiation, heavy metals, food safety, environmental pathogens, and clinical occupational medicine. Teaching tools include lectures, audiovisual media, case studies, guest experts, and assigned readings/exercises.

0.50 Dartmouth units; (HP, P, LP, NC) This course is cross-listed with QBS 145.

*Core Requirement for LPMR

Prequisites: PH 100, PH 110, PH 139, PH 140

PH 154/QBS 141 - Determinants of Health Inequities

Instructor: Alka Dev

This course will explore the root causes of population health -- including social, economic, and political inequities -- and the pathways by which they influence choices, behavior, and decision-making that lead to poor health outcomes. We will also explore the role of structural determinants such as structural bias and racism and the challenges in addressing these through public health action. Students will research evidence-based strategies in addressing health inequities for a particular health issue.

0.50 Dartmouth units; (HP, P, LP, NC) This course is cross-listed with QBS 141.

*Core Requirement for Residential MPH

Prequisites: None

PH 161 - Independent Internship 1

Instructor: Rebecca Emeny and Kristina Wolff

Part 1 of the Independent Internship. The public health field internship provides students with an opportunity to apply principles and skills learned in the classroom - the measurement, organization, and improvement of population health - to real situations in the field. The placement site can be an agency or organization in any sector – government, non-profit, or for-profit – but any university-affiliated settings must be focused primarily on
community engagement, typically with external partners. Students will be provided a selection of TDI-sourced Internship offerings but students may also opt to identify a self-sourced internship site. The project should be scoped such that a minimum of 120 hours will be spent at the placement site. Activities of the internship should be mutually beneficial to both the site and the student, with the student specifying five learning objectives for their learning experience. Students will spend the Winter term contacting internship sites and applying for an internship position. By the end of the term each student will be matched and have developed a mutually agreed upon contract with their Internship Site preceptor that will require approval from the course directors before the start of the Spring term. Typically, the internship series occurs in the winter and spring terms of the year, but other arrangements are possible with permission of the course director(s).

The objectives of this course are to 1) engage you to think broadly about the impact of communication at the patient, institutional, and population level, with a focus on shared decision making; 2) to gain skills and experience related to the design and development of decision support tools and methods; 3) to understand the challenges involved in implementing decision support into practice at the clinical and policy level.

0.25 Dartmouth units; (HP, P, LP, NC)

*Core Requirement: None

**Prerequisites:** PH 100, PH 110, PH 117, PH 128, PH 154, PH139, PH140 or consent of course director.

**PH 186-189 - Directed Readings**

Students may participate in a Directed Readings course through arrangements with a faculty member. “Directed” coursework involves readings and special projects, and is subject to approval by an approved TDI faculty supervisor and either the Executive Director of Education (for masters degree students) or the Chair of their program (for PhD students). Directed Readings are typically literature reviews on a topic with a paper due at the end of the term that provides an overview of the topic(s) reviewed, the references read, the process used to identify readings, and a summary of the theory and evidence found in the literature review. For PhD students, Directed Readings (PH 186-189) are for ‘deep background’ reading for the student’s general training or exploring a topic area, while Directed Research (PH 196-199 & PH296-299) grants credit for carrying out research activity, including a specific literature review for a research proposal or dissertation, design, analysis, writing, and preparing a PhD proposal.

**All terms: By arrangement (HP/P/LP/NC)**

**PH 186 is 0.50 units; PH 187 is 1.0 units; PH 188 is 2.0 units; PH189 is 3.0 units.**

**Prerequisites for Masters degree students: Core courses or permission of an approved faculty supervisor and an Approved Proposal. To obtain approval of proposal, prior to the beginning of the term please submit by email to Center for Education the Readings cover sheet and proposal with an electronic signature or email from the proposed TDI faculty supervisor.**

**PH 196-199 - Directed Research**

**Instructor:** Varies

Students may participate in Directed Research through arrangements with a faculty member. Directed research is subject to approval by an approved TDI faculty supervisor and either the Executive Director of Education (for masters degree students) or the Chair of their program (for PhD students). Directed Research (PH 196-199) grants credit to MPH, MS, and PhD students prior to their qualifying exam for carrying out research activity, including a specific literature review for a research proposal or dissertation, design, analysis, writing, and preparing a PhD proposal.

Directed Research (PH 296-299) grants credit exclusively to PhD candidates and post-docs for carrying out research activity. Contrast these with Directed Readings courses (PH 186-189) which are for ‘deep background’ reading for a student’s general training or exploring a topic area.

**All terms: By arrangement (HP/P/LP/NC)**

**PH 196 is 0.50 units; PH 197 is 1.0 units; PH 198 is 2.0 units; PH 199 is 3.0 units.**

**Prerequisites for Masters degree students: Core courses or permission of the Associate Director of Education and an Approved Proposal. To obtain approval of proposal, submit to Center for Education the Research cover sheet and proposal with an electronic signature or email from the proposed TDI faculty supervisor.**

**PH 272-276 - Supervised Teaching**

This experience for the student teacher assumes that the course has been developed and taught in prior terms. Course faculty and the student teaching assistant (TA) work closely to develop and evaluate discussion assignments and associated homework. TAs conduct discussion sessions in courses under the supervision of the course faculty. TAs may be encouraged to present lectures for which they receive detailed feedback on their teaching style. TAs receive instruction on effective teaching techniques, such as how to teach the material, how to run a discussion, how to evaluate student responses, and grading. TA performance will be monitored throughout the term and the supervising faculty will provide appropriate evaluation, coupled with detailed suggestions for improvement.

Teaching Assistants should plan on being available for 13 weeks of a 10-week course, for final course planning prior to the start of the term and student evaluation purposes after the end of the term.
All terms: By arrangement.  
(Credit/No Credit grade).

Prerequisites: PhD student, familiarity with the subject matter, and prior approval from TDI’s Center for Education and the supervising faculty member; MS and MPH students must request an exception from the Executive Director of Education to participate.

PH 277-279 - Advanced-Level Student Teaching

This experience for the student teacher assumes that the student has had considerable experience in teaching this course content. This is an advanced teaching course in which student teachers are given the opportunity to refine their teaching techniques and expand their role, under the supervision of the course faculty, and to include more advanced levels of responsibility as an instructor compared to those expected under PH 276. Students enrolling in this course must have completed their programmatic teaching requirement and otherwise be experienced as a teacher and exceptionally proficient in the subject matter.

All terms: By arrangement. 0.25-1.00 Dartmouth units; (Credit/No Credit grade)

PH 280-282 - Supervised Research Assistantship

Only PhD Students, PhD Candidates, or non-degree-seeking postdoctoral fellows with a thesis degree may sign up for Supervised Research Assistantship Courses. When the intended work to be accomplished is considered to be for training as a research assistant and work to be completed is for a grant or work of the faculty member and the student would not qualify for first authorship on reports or publications and is being paid hourly as a student employee, the student should sign up for Supervised Research Assistantship courses at the appropriate level. Otherwise, the student should sign up for directed research.

All terms: By arrangement. (Credit/No Credit)

Prerequisites: Doctoral student or candidate status or post-doctoral fellow

PH 296-299 - Doctoral Research

Students may participate in Directed Research through arrangements with a faculty member. Directed research is subject to approval by an approved TDI faculty supervisor and either the Executive Director of Education (for masters degree students) or the Chair of their program (for PhD students). Directed Research (PH 196-199) grants credit to MPH, MS, and PhD students prior to their qualifying exam for carrying out research activity, including a specific literature review for a research proposal or dissertation, design, analysis, writing, and preparing a PhD proposal. Directed Research (PH 296-299) grants credit exclusively to PhD candidates and post-docs for carrying out research activity. Contrast these with Directed Readings courses (PH 186-189) which are for ‘deep background’ reading for a student’s general training or exploring a topic area.

All terms: By arrangement.

PH 296 is 0.50 units; PH 297 is 1.0 units; PH 298 is 2.0 units; PH 299 is 3.0 units.

Prerequisites: PhD candidacy status, including successfully defending the thesis proposal.

PH 123 - Health Policy with ILE Project

Instructor: Craig Westling, Jared Rhoads

This course includes all the components, class meetings, and assignments of the PH 113 Health Policy course, plus an additional live session each week devoted to helping students build the skills needed to articulate messages in a persuasive, effective way. Students will learn the fundamentals of oratory, logic, and how to engage in structured, reasoned debate about their chosen policy topics. Weekly assignments will prepare students to participate in a live debate on their topic at the end of the course. In addition, students will prepare a presentation that synthesizes the advocacy strategy of PH113 with the advocacy content (i.e., written argumentation) created and practiced in PH123.

1.5 Dartmouth units; (HP, P, LP, NC)

Prerequisites: PH 100, PH 110, PH 128, PH 139 and PH 154

PH 203 - Health Systems

Instructor: Jared Rhoads and Tom Walsh

Improving population health requires understanding of health systems. This course identifies the challenges facing health systems and how different countries address them (or not) through their specific approaches to the financing, organization, delivery and oversight of their health systems, emphasizing systems thinking and payment systems.

0.50 Dartmouth units; (HP, P, LP, NC)

Required for Online MPH

PH 177 - Independent Integrative Learning Experience Part 1

Instructor: Aurora Drew and JoAnna Leyenaar

The three course sequence (PH 177 - PH 178 - PH 179) results in a student presenting their own original research proposal or manuscript. During the first course in this three course sequence, each student will refine a topic for an original project and develop a solid focus with a clear, feasible, answerable, research question or approach for a public health intervention. In the subsequent terms, this scholarly question will be operationalized as a scientific manuscript or grant proposal for research or public health
practice change. Other tailored formats may be considered with special permission.

0.50 Dartmouth Units; (HP, P, LP, NC)
Prerequisites: No previous courses required, but permission of the course directors is required for enrollment in PH 177. There is an application for admission to this course due approximately two weeks before the course.

PH 178 - Independent Integrative Learning Experience
Part 2
Instructor: Aurora Drew and JoAnna Leyenaar

The three course sequence (PH 177 - PH 178 - PH 179) results in a student presenting their own original research proposal or manuscript. During the second and third courses in the sequence, the weekly and final deliverables will be specific to the I-ILE Framework selected by the student. These I-ILE Frameworks include:

1. Proposal Framework: Students who pursue the Proposal Framework will complete a mock grant proposal using a modified National Institutes of Health format or other funding opportunity identified by the student and approved by the faculty. The proposal will include an Abstract, Specific Aims, Background & Significance, Overall Impact including Conceptual Framework, and Approach including methods for each aim, a budget, mock letter(s) of support, a detailed plan for community engagement, identification of potential funders, and (optional) pilot results.

2. Manuscript Framework: The manuscript format involves analysis of data, either existing or collected during the project period, presented as a manuscript <3000 words in length. It will be structured similar to a JAMA Original Research article, including a Structured Abstract, Introduction, Methods, Results, Discussion, Conclusion, References, and up to five Tables and/or Figures. Other target journals permitted with permission from course instructors.

0.50 Dartmouth units: (HP, P, LP, NC)
Prerequisites: PH 177 and permission of the course directors is required for enrollment in PH 178.

PH 162 - Independent Internship 2
Instructor: Rebecca Emeny and Kristina Wolff

Part 2 of the independent internship. At the end of PH161 all students continuing into PH162 will have been matched to an Internship site, either sourced by TDI or by the student independently. The placement site can be an agency or organization in any sector – government, non-profit, or for-profit – but any university-affiliated settings must be focused primarily on community engagement, typically with external partners. A minimum of 120 hours is to be spent at the placement site. Activities of the internship should be mutually beneficial to both the site and the student, with the student specifying five learning objectives for their learning experience. After completing the internship, each student prepares and presents their completed work and a summary of their experience to their site. A member of the TDI teaching team will also be in attendance. At the conclusion students complete an exit appraisal of their experience and achievements.

0.75 Dartmouth Units; (HP, P, LP, NC)
*Core Requirement: none
Prerequisites: PH 161

PH 179 - Independent Integrative Learning Experience
Part 3
Instructor: Aurora Drew and JoAnna Leyenaar

The three course sequence (PH 177 - PH 178 - PH 179) results in a student presenting their own original research proposal or manuscript. During the second and third courses in the sequence, the weekly and final deliverables will be specific to the I-ILE Framework selected by the student. These I-ILE Frameworks include:

1. Proposal Framework: Students who pursue the Proposal Framework will complete a mock grant proposal using a modified National Institutes of Health format or other funding opportunity identified by the student and approved by the faculty. The proposal will include an Abstract, Specific Aims, Background & Significance, Overall Impact including Conceptual Framework, and Approach including methods for each aim, a budget, mock letter(s) of support, a detailed plan for community engagement, identification of potential funders, and (optional) pilot results.

2. Manuscript Framework: The manuscript format involves analysis of data, either existing or collected during the project period, presented as a manuscript <3000 words in length. It will be structured similar to a JAMA Original Research article, including a Structured Abstract, Introduction, Methods, Results, Discussion, Conclusion, References, and up to five Tables and/or Figures. Other target journals permitted with permission from course instructors.

0.50 Dartmouth units: (HP, P, LP, NC)
Prerequisites: PH 177, 178 and permission of the course directors is required for enrollment in PH 179.
PH 101 - Inferential Methods in Epidemiology and Public Health II
Instructor: Rebecca Emeny
As a continuation of PH100, students learn to recognize the purpose, structure, strengths and weaknesses of common study designs: decision and cost-effectiveness analysis, before-after, cross-sectional, qualitative and mixed-methods studies. Weekly journal clubs establish a critical assessment framework to determine the relevance and validity of published studies. Students apply this knowledge through continued collaborative writing of a systematic review proposal, which includes refinement of a search strategy and selection of three studies that fulfill inclusion criteria.
0.50 Dartmouth units; (HP, P, LP, NC)
*Core Requirement for Residential MPH and MS
Prerequisites: PH 100, PH 110

PH 218 - Introduction to Qualitative Methods in Public Health Practice
Instructor: Meghan Longacre
This course will provide students an overview of qualitative methods in public health, with an emphasis on applied skill development. Students will learn the theoretical underpinnings and appropriate applications of qualitative methods in public health practice. We will then turn to principles of qualitative study design, including developing qualitative research questions; identifying sampling strategies and open-ended data collection techniques; analyzing and interpreting text-based data; and using standards for reporting qualitative findings. Students will gain hands-on practice with the semi-structured interviewing, qualitative data coding and thematic analysis, and the presentation of qualitative data.
0.50 Dartmouth units; (HP, P, LP, NC)
Required for Online MPH

PH 207 - Inferential Methods and Measures
Instructor: Honor Passow and Robin Larson
The Methods & Measures (M&M) course uses a weekly “determinant of health” theme to introduce a range of study designs and measures commonly used to explore behavioral, environmental, socioeconomic, and healthcare-related questions. The 4-week course covers observational and interventional designs – from cross-sectional surveys to randomized trials – and explores the calculation and interpretation of key measures in health fields – from dichotomous measures of events to continuous measures of laboratory results. Through repeated application to different designs each week, students hone skills for critically appraising the methods, measures, findings and conclusions of published examples, and gain appreciation for how each design and measure impacts the validity of causal inferences. The M&M course prepares students for future study of epidemiology and biostatistics, while reinforcing preceding content from PH 205 Determinants of Health and Inequities.
0.50 Dartmouth units; (HP, P, LP, NC)
Required for Online MPH

PH 110 - Public Health Foundations
Instructor: Sharmin Hossain
Public health is what we do as a society collectively to assure the conditions in which people can be healthy. This course introduces students to the broad landscape of public health and goes a step further to population health in discussing partnerships between health care systems, government agencies and other organizations to improve the health of the public. Modules in this asynchronous course introduce students to the profession and science of public health, communication with diverse audiences, factors related to human health, and the structure of public health and health care systems.
0.25 Dartmouth units; (CT, NC)
*Core Requirement for Residential MPH & MS  (PH 110) and Hybrid MPH (PH 201). These two courses are cross listed.
Prerequisites: None

PH 114 - Contemporary Issues in Biotechnology: The Practitioner’s Perspective
Instructor: Steve Gillis and Mike Zubkoff
In this course, students will gain an appreciation for the biotechnology industry, its premise and continued promise, as well as what is required for biotechnology entrepreneurs in the 21st century to attract investment capital. Areas ripe for investment and development will be explored, as will lessons that have been learned over the past four decades that have been witness to the creation of thousands of biotechnology companies, and the very way that innovation is supported by the pharmaceutical industry and regulated by worldwide governments.
0.50 Dartmouth units; (HP, P, LP, NC)
This course is cross-listed with the Tuck School of Business course CIB

PH 116 - Approaches to Studying Determinants of Health Inequities with ILE Project
Instructor: Alka Dev
Our health is determined by many interconnected forces driven by the social, political, economic, and environmental conditions under which we live and work. How we understand and experience illness and health is just as much a product of our context as it is of our
biology. Theories can help organize our rationale for studying the determinants of health while research methods help us measure and interpret what we learn. Ethical issues abound as we attempt to understand and address the inequalities that are pervasive throughout our contexts. This course will use case studies, scientific literature, documentary footage, and journalism to appreciate the complexity of studying the determinants of health while exploring some of the methodological solutions that have advanced public health research. Students will have an opportunity to work on at least two different topics with their class and one of their own choosing.

1.5 Dartmouth units; (HP, P, LP, NC)
*Core Requirement for: None
Prerequisites: PH 100, PH 110, PH 128, PH 139 and PH 154

PH 118 - Community Health: Needs Assessment, Program Design & Evaluation

Instructor: Greg Norman and Chelsey Canavan

This course develops defining skills in public health: assessing a community’s needs, designing programs to address those needs, and evaluating the effectiveness of those programs. Students will learn the principles of these processes. Working in teams, students will evaluate a non-profit hospital’s Community Health Needs Assessment, the programs the hospital designed in response, and the evaluation process the hospital employs. Students will report the strengths and opportunities for improvement they identify to hospital staff.

1.25 Dartmouth units (HP, P, LP, NC)
Core Requirement for Residential MPH
Prerequisites: PH 128, PH 139, PH 154

PH 128 - Health Systems & Policy

Instructor: TBD

Improving population health requires understanding of health systems and health policy. This course identifies the challenges facing health systems and how different countries address them (or not) through their specific approaches to the financing, organization, delivery and oversight of their health systems, emphasizing systems thinking and payment systems. The policy-making process is introduced with an emphasis on how policy proposals can be moved forward and how to evaluate their potential impact on health and equity.

0.50 Dartmouth Units; (HP, P, LP, NC)
*Core Requirement for Residential MPH & MS
Prerequisites: None

PH 134 - U.S. Maternal and Child Health Care

Instructor: David Goodman

The health of mothers, infants, and children is dependent upon accessible and effective health care. In this course, we will critically examine the provision of health care through public and private systems to U.S. women of reproductive age, infants, and young children. The course will first provide an overview of health and social issues in this population, and then students will explore the unique funding, structure, processes, and outcomes of U.S. maternal and child health care with an emphasis on current critical issues. This is a hands-on evidence and data driven course that builds upon many of the courses and topics from the summer and fall and connects with winter and spring term courses. The course includes a virtual lab where previously acquired epidemiologic and Stata skills will be applied to examine perinatal risk, care, and outcomes. In-class time will be used primarily for discussion and hands-on learning.

0.75 Dartmouth units; (HP, P, LP, NC)
*Core Requirement for: None
Prerequisites: PH 100, PH 101, PH 110, PH 111, PH 125, PH 128, PH 139, PH 140, PH 154, PH 117 or instructor permission

PH 181 - Research in Health Services I

Instructor: Varies

An original individual, experimental, or theoretical investigation beyond the undergraduate level in quantitative biomedical sciences. This course is open only to TDI PhD graduate students prior to passing their qualifying exam; it may be elected for credit more than once and is offered all quarters. Students either in research rotations or dissertation labs are required to register every quarter, including summer. Advanced research is to be registered for post-qualifier examination.

1.0 Dartmouth units; (CT, NC)
*Core Requirement for PhD
Prerequisites: None

PH 182 - Research in Health Services II

Instructor: Varies

An original individual, experimental, or theoretical investigation beyond the undergraduate level in quantitative biomedical sciences. This course is open only to TDI PhD graduate students prior to passing their qualifying exam; it may be elected for credit more than once and is offered all quarters. Students either in research rotations or dissertation labs are required to register every quarter, including summer. Advanced research is to be registered for post-qualifier examination.
2.0 Dartmouth units; (CT, NC)
*Core Requirement for PhD
Prerequisites: None

**PH 183 - Research in Health Services III**
Instructor: Varies

An original individual, experimental, or theoretical investigation beyond the undergraduate level in quantitative biomedical sciences. This course is open only to TDI PhD graduate students prior to passing their qualifying exam; it may be elected for credit more than once and is offered all quarters. Students either in research rotations or dissertation labs are required to register every quarter, including summer. Advanced research is to be registered for post-qualifier examination.

3.0 Dartmouth units; (CT, NC)
*Core Requirement for PhD
Prerequisites: None

**PH 210 - Epidemiology of Health and Healthcare**
Instructor: Robin Larson

The “Epidemiology of Health & Healthcare” course is designed to equip students with the knowledge, skills, and shared vocabulary needed to recognize a wide range of study designs used to evaluate public health questions, and to critically assess the relevance and validity of their conclusions. In doing so, the course provides students with a framework for further learning and application, whether it be moving on to biostatistics and advanced methods courses, using data and/or literature to make persuasive policy arguments grounded in awareness of the strengths and weaknesses of the available evidence, or designing and implementing high quality studies of their own in which sources of bias are minimized and limitations to the conclusions are thoughtfully acknowledged.

0.625 Dartmouth units; (HP, P, LP, NC)
Required for Online MPH

**PH 212 - Biostatistics: Interpretation & Appraisal**
Instructor: Honor Passow

Being a critical reader of the literature in health fields is essential for evidence-based action and requires appraisal of measurement and inferential statistics. Measurement can describe a situation or result, while inferential statistics can quantify the uncertainty inherent in making a quantitative inference about a population from a sample. At the end of this six-week course, students will be confident, critical readers of the literature; have a shared vocabulary about basic statistics; and have skill in conducting and interpreting descriptive statistics, interpreting inferential statistics from hypothesis tests and multiple linear regression, and appraising the validity and generalizability of data and findings. Students will also be prepared for further learning and application, whether in biostatistics or advanced methods courses or using data and literature to make persuasive policy arguments.

0.625 Dartmouth units; (HP, P, LP, NC)
Required for Online MPH

**PH 214 - Introduction to Survey Methods for Public Health and Healthcare**
Instructor: Karen Schifferdecker

This course introduces students to the use of survey methods in public health and healthcare. Students will learn basic principles of survey study design and data collection, focusing on evidence-based designs such as the tailored design survey approach. Specific activities used to learn survey methods include writing and critiquing survey questions, evaluating survey formats, and designing survey studies, including sampling, survey mode and recruitment based on the study question, context and target population.

0.50 Dartmouth units; (HP, P, LP, NC)
Required for Online MPH

**PH 216 - Applied Epidemiology**
Instructor: Aurora Drew

In this course, students will develop the skills needed to succinctly summarize and communicate the findings from health and health-care related research questions. Students will build upon the content of previous courses in epidemiology and biostatistics to strengthen their ability to find, analyze, interpret, synthesize and communicate health data. Because epidemiologists are often concerned with the presence or absence of a disease, this course will focus on logistic regression and interpreting unadjusted and adjusted odds ratios. This course will also build a working knowledge of confounding and effect modification, two critical concepts in epidemiology. By the end of this course, students will be able to find available health data to address epidemiological research questions, apply appropriate descriptive statistics to summarize such health data, and interpret, synthesize and communicate results to epidemiological research questions that involve odds ratios, confounding and effect modification in writing.

0.40 Dartmouth units; (HP, P, LP, NC)
Required for Online MPH
PH 220 - Anchor Institutions and Population Health
Instructor: Gregory Norman
This course will introduce students to ways that Anchor Institutions such as health systems and institutions of higher education can intentionally adapt their existing business functions to address disparities in social, environmental, and systemic/structural drivers of health.
0.50 Dartmouth units; (HP, P, LP, NC)
Required for Online MPH

PH 222 - Ethics in Health and Health Care
Instructor: William A. Nelson
This highly interactive, inter-professional, case-focused course is designed to give students an overview of health care ethics, including recognizing and responding to contemporary clinical, research and organizational ethics conflicts. Students will become familiar with the application of ethics principles to the health care challenges faced by today’s various health care professionals.
0.50 Dartmouth units; (CT, NC)
Required for Online MPH

PH 224 - Enhancing Communication & Teamwork
Instructor: Nan Cochran
Conflict is inevitable – we negotiate our differences every day, whether we are public health practitioners, clinicians, administrators or researchers. Working effectively in public health and health care depends on our ability to manage conflict effectively, learn how to understand others’ perspectives and interests, and give and receive feedback. If poorly managed or avoided, conflict reduces productivity, undermines trust and leads to worse outcomes. If viewed as an opportunity to explore the concerns and different perspectives that others may have, working through these differences can enable individuals and teams to come up with better solutions and work more effectively. Students will learn the basic principles and skills of how to engage effectively with differences and conflicts, understand the strengths and weaknesses of how you tend to approach conflict in your life, and provide you a framework for thinking about both communication and negotiation.
0.25 Dartmouth units; (CT, NC)
Required for Online MPH

PH 226 - Intro to Environmental Health
Instructor: Carolyn Murray
This course engages students in the exploration of major environmental and occupational health issues through application of the basic tools of environmental science including epidemiologic methods, toxicology and risk assessment. Participants will examine the relationship between environmental and occupational exposures and human disease with emphasis on the interface of science and policy, the role of regulatory agencies and environmental risk communication.
0.50 Dartmouth units; (HP, P, LP, NC)
Required for Online MPH

PH 228 - Communication for Health and Healthcare
Instructor: Sam Casella, Thom Walsh
This course explores the role of communication in shaping health and health care at the individual, organizational, and community level. From the doctor-patient dyad, to national public health campaigns, communication is critical to improving and changing health behaviors and health outcomes. This course will help you understand how communication shapes the exchange of information, the formation of attitudes and beliefs, and people's health behavior.
HP, P, LP, NC
Required for Online MPH

PH 233 - Applied Improvement Methods
Instructor: Tina Foster and Daisy Goodman
This course will introduce students to the use of basic methods for improving healthcare quality and its impact on public health. Students will learn basic principles of improvement and implementation to assess context and current performance; address measurement, data collection, and analysis; sustain or bolster strong performance and address opportunities for improvement; and consider strategies for dissemination and spread. Principles of coproduction will be used to align improvements with community needs and explore partnerships to reduce disparities in both healthcare delivery and outcomes.
0.75 Dartmouth units; (HP, P, LP, NC)
Required for Online MPH

PH 238 - Leading Change in Health Policy
Instructor: Manish Mishra
This course will explore different approaches to leading change in health policy. The students will begin the class by examining two popular models used in healthcare
leadership literature. We will then go beyond those leadership models and meditate on the philosophical and psychological constructs that underlie those teachings. The focus of this depth examination will offer students a method to execute a multi-stakeholder analysis and develop strategies to be influential in leading policy changes. By the end of the course, students will be able to apply these teachings to a health care policy issue of their choice, generate specific action items pertaining to identified stakeholder groups, and be able to concisely articulate their policy position. Students will also understand their own leadership style as they continue to influence change moving forward.

0.50 Dartmouth units; (HP, P, LP, NC)

Required for Online MPH

PH 242 - Health Services Administration

Instructor: Eric Wadsworth and Bonnie Blanchfield

Recent shifts in US healthcare policy toward reimbursement structures that incent high quality and efficient care, shift the focus from volume to value, increase revenue and cost pressures, and push leaders in public health to do more with less. Managing for program outcomes and financial soundness has become ever more demanding. The goal of the Health Services Administration course is to enable students to make value enhancing decisions and be effective leaders in the evolving health care market.

This course will teach students the basic principles of financial and managerial accounting and how to make a business case for a program or innovation.

0.625 Dartmouth units; (HP, P, LP, NC)

Required for Online MPH

PH 252 - Health Policy

Instructor: Craig Westling, Jared Rhoads

The purpose of this course is to introduce students to the health-policy making process and examine how it is shaped by legislation, regulations and the courts. After understanding the process, students will choose a policy topic and begin to build a strategy for making the change they want to see happen. Each course assignment leads up to the final project, which is a policy advocacy strategy that includes: an analysis of a policy issue, a summary of relevant research, a stakeholder analysis and management plan, a metrics-based evaluation plan, and prepared written and oral communication points. The final deliverable puts all the pieces are together, so each student will have created a map to manifest their desired change.

0.50 Dartmouth units; (HP, P, LP, NC)

Required for Online MPH

PH 256 - Strategy for Population Health

Instructor: Bonnie Blanchfield, Eric Wadsworth

In a context of shifting reimbursement models, an evolution from volume to value, and increasing revenue and cost pressures, managing for program outcomes and financial soundness has become ever more demanding. The goal of the Strategy for Population Health course is to enable students to make value enhancing decisions and to be effective leaders in the evolving health and healthcare market. Building on financial skills, this course develops strategic thinking skills, which are critical for achieving those goals. Specifically, strategy describes what a health and healthcare delivery system should be doing in order to determine: where it’s going and how it intends to get there. The strategy modules are intended to help students recognize, develop, articulate, and implement strategy; and to expose them to a broad range of strategies for re-designing healthcare delivery and public health.

0.40 Dartmouth units; (HP, P, LP, NC)

Required for Online MPH

PH 258 - International Health Systems

Instructor: Alka Dev, David de Gijsel

The purpose of this course is to learn about international health systems. The course introduces various dimensions that define health systems. This theoretical framework is applied to select country’s health systems and used for comparison and critique. Special attention is given performance and quality. In this course, we will ask students to collaborate on a series of tasks including discussion boards, study group presentations, and a final group paper.

(HP, P, LP, NC)

Required for Online MPH

PH 261 - Practicum 1

Instructor: Tina Foster and Meghan Longacre

The TDI Hybrid MPH includes a concurrent practicum course that runs throughout the entire program, combining aspects of both the Master’s thesis and internship. Students develop and execute their own individual practicum with faculty support, focusing on a specific problem area or question. Skills gained in the program serve to improve health and/or health care, develop or refine policy, or generate new knowledge in a real-world setting. Using systems thinking, qualitative and quantitative methods, along with effective inquiry, student practicums will provide actionable insights and feasible recommendations.
0.75 Dartmouth units; (CT, NC)
Required for Online MPH

PH 262 - Practicum 2
Instructor: Tina Foster, and Meghan Longacre
The TDI Hybrid MPH includes a concurrent practicum course that runs throughout the entire program, combining aspects of both the Master’s thesis and internship. Students develop and execute their own individual practicum with faculty support, focusing on a specific problem area or question. Skills gained in the program serve to improve health and/or health care, develop or refine policy, or generate new knowledge in a real-world setting. Using systems thinking, qualitative and quantitative methods, along with effective inquiry, student practicums will provide actionable insights and feasible recommendations.

1.00 Dartmouth units; (CT, NC)
Required for Online MPH

PH 263 - Practicum 3
Instructor: Tina Foster, Meghan Longacre and additional faculty
The TDI Hybrid MPH includes a concurrent practicum course that runs throughout the entire program, combining aspects of both the Master’s thesis and internship. Students develop and execute their own individual practicum with faculty support, focusing on a specific problem area or question. Skills gained in the program serve to improve health and/or health care, develop or refine policy, or generate new knowledge in a real-world setting. Using systems thinking, qualitative and quantitative methods, along with effective inquiry, student practicums will provide actionable insights and feasible recommendations.

1.00 Dartmouth units; (HP, P, LP NC)
Required for Online MPH

PH 264 - Practicum 4
Instructor: Tina Foster, Meghan Longacre and additional faculty
The TDI Hybrid MPH includes a concurrent practicum course that runs throughout the entire program, combining aspects of both the Master’s thesis and internship. Students develop and execute their own individual practicum with faculty support, focusing on a specific problem area or question. Skills gained in the program serve to improve health and/or health care, develop or refine policy, or generate new knowledge in a real-world setting. Using systems thinking, qualitative and quantitative methods, along with effective inquiry, student practicums will provide actionable insights and feasible recommendations.

1.00 Dartmouth units; (HP, P, LP NC)
Required for Online MPH

PH 290 - Doctoral Seminar
Instructor: TBD
This three-term seminar aims to enhance skills in research communication. Based on participants’ background and interest, the seminar will cover a range of topics including PowerPoint presentations, talks to professional and lay audiences, posters, abstracts, articles for professional journals, and research grants. The course leaders will present brief didactic material, but the primary method is alternating peer presentations.

The seminar meets for three terms (10 sessions each term) for PhD students, post-docs, and junior faculty (maximum 10 participants). Participants must be actively writing papers and grants.

Because we expect considerable interest in this seminar series, seminar faculty will be interviewing potential participants to ensure that the seminar meets their needs and interests.

0.25 Dartmouth units; (Credit/No Credit)
PH 700 - Responsible and Ethical Conduct of Research
Required course for all Health Policy and Clinical Practice MPH, MS and PhD graduate students. Students must complete CITI Training for Human Research both the Biomedical Research Basic Course (Group 1) and the Social/Behavioral Research Basic Course (Group 2). Within each module are seven sections: Introduction; Research Misconduct; Data Acquisition and Management; Peer Review; Mentor & Trainee Responsibilities; Conflict of Interest; and Collaborative Research. Successful completion of this training is a requirement for participation in research at Dartmouth.

Unspecified Graduate Courses
To view Unspecified Graduate Courses, click here.

Courses allowable for undergraduates include:

UNSG 295 Experiential Learning and Analysis in the Sciences
This course requires an internship or other external practical training experience related to their program of study in the Sciences. The course is designed to provide students with an opportunity to apply academic principles and skills in real situations outside the classroom. Students will be required to submit a paper that reflects on their experience and the ways in which it enhanced and furthered the student's academic program of study. This course does not count toward the number of courses required for any degree. Students receive a pass/fail (CR/NC) grade based on evaluation from on-site, internship supervisor. Permission is required to enroll.

UNSG 296 Experiential Learning and Analysis in the Social Sciences

This course requires an internship or other external practical training experience related to their program of study in the Social Sciences. The course is designed to provide students with an opportunity to apply academic principles and skills in real situations outside the classroom. Students will be required to submit a paper that reflects on their experience and the ways in which it enhanced and furthered the student's academic program of study. This course does not count toward the number of courses required for any degree. Students receive a pass/fail (CR/NC) grade based on evaluation from on-site, internship supervisor. Permission is required to enroll.

UNSG 297 Experiential Learning and Analysis in the Arts & Humanities

This course requires an internship or other external practical training experience related to their program of study in the Arts & Humanities. The course is designed to provide students with an opportunity to apply academic principles and skills in real situations outside the classroom. Students will be required to submit a paper that reflects on their experience and the ways in which it enhanced and furthered the student’s academic program of study. This course does not count toward the number of courses required for any degree. Students receive a pass/fail (CR/NC) grade based on evaluation from on-site, internship supervisor. Permission is required to enroll.

UNSG 298 Experiential Learning and Analysis in Interdisciplinary Studies

This course requires an internship or other external practical training experience related to the student’s program of study in Interdisciplinary Studies. The course is designed to provide students with an opportunity to apply academic principles and skills in real situations outside the classroom. Hands-on experience with existing enterprises can create a valuable training and enrichment experience for students in Interdisciplinary Studies. Students will be required to submit a written plan for the internship, a mid-term report, and a final paper that reflects on their experience and the ways in which it enhanced and furthered the student’s academic program of study. This course does not count toward the number of courses required for any Dartmouth degree. Students receive a pass/fail (CR/NC) grade based on evaluation from on-site, internship supervisor and faculty review of the required reports. This course may be taken in fall, winter, spring or summer term, but can only be taken twice during the student’s degree program. Each student enrolled must have declared a major. International students with immigration sponsorship from Dartmouth College should consult the Office of Visa and Immigration Services (OVIS) about the application process and eligibility for employment authorization to complete the internship or other external practical training experience. F-1 students may only enroll during an eligible, earned leave term following a minimum of three consecutive enrolled terms of R, O or X based on the student’s D-Plan. Permission of the Guarini Graduate School Dean’s Office is required to enroll.

Health Care Delivery Science

Faculty Director(s): Katherine J. Milligan, Program Director, MHCDS; Adjunct Professor, Tuck School of Business; Robert A. Shumsky, Faculty Co-Director, MHCDS; Professor of Operations Management, Tuck School of Business

Faculty: Ron Adner, David T. McLaughlin D’54, T’55 Professor, Tuck School of Business; Paul Argenti, Professor of Corporate Communication, Tuck School of Business; Pino Audia, Professor of Management and Organizations, Tuck School of Business; Carrie Colla, Professor, The Dartmouth Institute; Glyn Elwyn, Professor at The Dartmouth Institute for Health Policy and Clinical Practice; Elliott Fisher, Professor, The Dartmouth Institute for Health Policy and Clinical Practice; Paul B. Gardent, Clinical Professor of Business Administration, Tuck School of Business, Director, MBA-MPH Program, Tuck School of Business, Senior Associate, Center for Leadership and Improvement, The Dartmouth Institute for Health Policy and Clinical Practice; Vijay Govindarajan, Earl C. Daum 1924 Professor of International Business, Tuck School of Business; Robert G. Hansen, Norman W. Martin 1925 Professor of Business Administration, Tuck School of Business; Constance E. Helfat, J. Brian Quinn Professor in Technology and Strategy and Area Chair, Strategy and Management, Tuck School of Business; Carolyn Kerrigan, Active Emeritus Professor of Surgery, Geisel School of Medicine, Active Emeritus Professor, The Dartmouth Institute for Health
MHCDS Program

Undergraduates interested in health care delivery science should refer to the health policy track of the Rockefeller Center Public Policy Minor. Graduate students enrolled in the Master of Health Care Delivery Science (MHCDS) program take a prescribed sequence of courses as a cohort; there are no electives.

The MHCDS program is administered by the faculties of the Tuck School of Business and the Dartmouth Institute for Health Policy and Clinical Practice. The courses listed below are designed for graduate students and do not conform to the undergraduate course calendar.

Requirements for the Master’s Degree (M.S.)

To qualify for award of the M.S. degree in health care delivery science, a student must fulfill the following requirements:

1. Satisfactory completion of a twelve-month, graduate-level core curriculum in health care delivery science.
2. Attendance at three residential periods at Dartmouth College in conjunction with the core curriculum.

HCDS

HCDS AFE - Accounting and Finance Essentials
Instructor: Philip Stocken

This course develops frameworks, tools, and models to enable participants to make value-enhancing financial decisions in the delivery of health care by developing the relevant ideas in two stages. The first stage (financial accounting) will build participants’ skills in interpreting, analyzing, and forecasting financial statements (the income statement, the balance sheet, and the statement of cash flows). The second stage (corporate finance) will advance and synthesize the ideas from the first by building skills to make investment and financing decisions, as well as to value businesses.

HCDS ALP - Action Learning Project
Instructor: Carolyn Kerrigan and Katherine Milligan

In this course, students work in teams to identify, define, plan and execute a strategic project that impact health and business outcomes. Projects have an external organizational client who provides motivation for the project and access to data and people in the client organization. Each team will work with a faculty advisor who approves the project and coaches the team on its planning and execution. Teams are also encouraged to consult with other Dartmouth faculty members in their respective areas of expertise. Teams formally present their findings and results to faculty, peers, and executives from sponsoring institutions. (Required to complete: Part 1 & Part 2)

HCDS ASP - Aligning Systems and People
Instructor: Valerie Myers

Organizational outcomes depend on the alignment of people and teams, working together toward common goals. In this course, we examine alignment through the lens of applied psychology, particularly theories of motivation. We explore how motivation theory and research inform important tools of alignment: compensation, job design, and decision-making. We discuss positive changes health care leaders can make to increase alignment and thereby increase the chances that health care delivery teams and organizations will have successful outcomes.

HCDS FSL - Fundamental Skills for Health Care Delivery Leaders
Instructor: Philip Stocken

This course builds the basic toolkit necessary for leadership in health care delivery, including ethics, teamwork, communications, negotiations, and a practical introduction to policymaking. (Required to complete: Part 1 & Part 2)
HCDS GMT - General Management
Instructor: Paul Argenti
Students take the vantage point of a high-level manager in a health care system and understand how divisions, departments, and microsystems currently interact, and how they might. This course will explore all aspects of a health care organization that are necessary for success, from human resources to credentialing, from finance to supply management, and from union management to physician management in a voluntary staff model. In anticipation of health care reform, students will learn how team leadership, performance measurement, and incentive structures will have an impact on care delivery. The course draws heavily on the general management literature and uses cases to apply those ideas to health care organizations. Students take the vantage point of a high-level manager in a health care system and understand how divisions, departments, and microsystems currently interact, and how they might. This course will explore all aspects of a health care organization that are necessary for success, from human resources to credentialing, from finance to supply management, and from union management to physician management in a voluntary staff model. In anticipation of health care reform, students will learn how team leadership, performance measurement, and incentive structures will have an impact on care delivery. The course draws heavily on the general management literature and uses cases to apply those ideas to health care organizations.

HCDS HCI - Human Centered Innovation
Instructor: Alva Taylor
There is no area in which innovation would positively impact society more than improvements in health care. However, the health sector is a complex, constrained, and difficult setting for new ideas and new practices. In this course students will examine the following themes: 1) What are the basic tenets of innovation, and how do they apply to the healthcare sector? 2) How can we use human centered design techniques to guide innovation? 3) What are ways to gather clear observational information on the needs of the customers, systems, and procedures? 4) Learn techniques to frame and reframe problems that lead to more successful innovations in the operational and clinical environments of healthcare.

HCDS HCO - Health Care Operations Management
Instructor: Robert Shumsky
Two themes will run throughout this course: 1) aligning the design and management of processes with the goals of the health care system and 2) managing variability. In health care, the first theme is crucial but complex, for the system's goals may be multidimensional. The second theme is also particularly challenging, for health care systems are faced with variability generated by fluctuations in customer demands, treatment times, patient expectations and preferences, and patient willingness or ability to participate in treatment. Specific concepts and tools in the course include process flow analysis, the theory of constraints, queueing/congestion analysis, quality improvement, and capacity management.

HCDS HEP - Health Economics and Policy
Instructor: Carrie Colla and Robert Hansen
While the economics of the health care industry appear different from other industries, the behaviors and outcomes are to a great extent the result of incentives faced by individuals and organizations, in combination with some form of competition and, of course, a large degree of regulation. This course will equip participants with a knowledge of health economics that enables them to understand the current state of affairs; to foresee likely effects of policy changes; and to incorporate sound economic analysis in their role as managers. Likely topics to be covered include: costs and pricing; industry consolidation both vertical and horizontal; economics of risk pooling and insurance markets, especially adverse selection and moral hazard; and incentive effects of different payor and financing systems.

HCDS HSM - Healthy Skepticism
Instructor: Carrie Colla and Robert Hansen

HCDS INDI - Independent Study
Instructor: Lindsey Leininger
This course will offer a student the opportunity to pursue other ventures in learning related to health care delivery. The topic must be approved and supervised by a faculty member and graded at its conclusion. The course is expected to be a high-quality, graduate level experience. It may be: 1) a subject studied independently that is unavailable at Dartmouth or not offered at a convenient time; 2) a continuation of a course already taken, with new and original work.

HCDS LDI - Leveraging Data to Inform Decision-Making
Instructor: Lindsey Leininger
This course introduces quantitative reasoning toolkits reinforced with on-the-ground case studies. We will discuss the relative merits and limitations of common types of data sources in health care – such as electronic health records, claims databases, and surveys – and will introduce...
Students focus in particular on the process of change and relevant research and theory, and then complement and developed. In this course we will draw on the large body of management knowledge has developed. In this course we will draw on the large body of relevant research and theory, and then complement and integrate this theory with experience from practice. Students focus in particular on the process of change and on the sequencing of change activities. Recommended actions are matched with concrete, tested, and specific tools for their application. Proceeding from concepts to actions to tools provides a range and depth of practical understanding that is unusual in this important area of management activity. The focus will be on the specifics of health care organizations, but much can be learned from studying other firms and industries that have seen substantial change.Today, many organizations confront situations that require them to manage change on a continuous basis. This critical skill has become a core component of every manager's job and a substantial body of management knowledge has developed. In this course we will draw on the large body of relevant research and theory, and then complement and integrate this theory with experience from practice. Students focus in particular on the process of change and on the sequencing of change activities. Recommended actions are matched with concrete, tested, and specific tools for their application. Proceeding from concepts to actions to tools provides a range and depth of practical understanding that is unusual in this important area of management activity. The focus will be on the specifics of health care organizations, but much can be learned from studying other firms and industries that have seen substantial change.

**HCDS MOC - Management of Organizational Change**
Instructor: Adam Kleinbaum

Today, many organizations confront situations that require them to manage change on a continuous basis. This critical skill has become a core component of every manager's job and a substantial body of management knowledge has developed. In this course we will draw on the large body of relevant research and theory, and then complement and integrate this theory with experience from practice. Students focus in particular on the process of change and on the sequencing of change activities. Recommended actions are matched with concrete, tested, and specific tools for their application. Proceeding from concepts to actions to tools provides a range and depth of practical understanding that is unusual in this important area of management activity. The focus will be on the specifics of health care organizations, but much can be learned from studying other firms and industries that have seen substantial change.

**HCDS PHPC - Population Health and Preventive Care**
Instructor: Elliott Fisher

In this course, students will learn about the multiple determinants of health, how to measure health status, how health behaviors can be modified through social marketing, and how health disparities and socioeconomic status influence population health status. Students will come to understand the social mission of health care organizations and how they might work through social and behavioral determinants of health to improve overall health status, particularly as health care organizations adopt medical home models and begin to work with bundled and capitated payment systems.

**HCDS PLS - Personal Leadership**
Instructor: Pino Audia and Alexander Jordan

The focus of this course is concrete — building an understanding of one's strengths and opportunities for improvement as leaders and using that knowledge to identify actions that advance leadership potential. The centerpiece of this course is a comprehensive, 360-degree assessment of each participant's leadership skills, based on confidential evaluations completed by bosses, co-workers, peers, and clients. During the course, students will write their own Leadership Development Plan, a specific and measurable plan for strengthening their leadership skills.

**HCDS SPE - Specialty Topics in Health Care Delivery**
Instructor: Constance Helfat

This course focuses on the effective formulation of strategy for healthcare organizations. The course introduces key concepts and analytical methods for formulating strategies that add value for patients as well as for providers and other organizations that affect health care delivery. In addition to core concepts and methods, the course covers the strategic management of partnerships, innovation, strategy for organizations that offer services in multiple areas, health care systems, and strategic choice in uncertain situations. Through the application of course concepts to complex cases, the course develops skills in strategy formulation for senior leaders involved in health care delivery. (Required to complete: Part 1 & Part 2)

**HCDS STRAT - Strategy for Health Care**
Instructor: Constance Helfat

This course focuses on the effective formulation of strategy for healthcare organizations. The course introduces key concepts and analytical methods for formulating strategies that add value for patients as well as for providers and other organizations that affect health care delivery. In addition to core concepts and methods, the course covers the strategic management of partnerships, innovation, strategy for organizations that offer services in multiple areas, health care systems, and strategic choice in uncertain situations. Through the application of course concepts to complex cases, the course develops skills in strategy formulation for senior leaders involved in health care delivery. (Required to complete: Part 1 & Part 2)

The course will focus on strategic innovation, strategy implementation, and combining strategic thinking with leadership skills to create successful change. All the previous course work will be brought to bear on strategic redesign of the health care delivery system. The course will
re-examine best-in-class examples of system design to understand the strategic implications of systemic change. In addition, the course will use complex cases to examine the delivery system from the viewpoint of a CEO, a board member, or a senior public official, requiring learners to use all their skill sets to think through design options that create value and optimize measures including institutional accountability, patient outcomes, quality, cost, and employee satisfaction.
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