Centers and Institutes


College of Fine and Performing Arts

Caroline Schmidt presents *Analysis of Motor Learning for Optimal Success in Dance Choreography*. Mentored by Susan Haines. College: College of Fine and Performing Arts, Location: 9A.

College of Humanities and Social Sciences

Julia Berkman, Monique Merrill, Questen Inghram, Zoe Deal presents *A light in the dark: Five years of voyeurism in the York and Sehome neighborhoods*. Mentored by Betsy O'Donovan. College: College of Humanities and Social Sciences, Location: 35A.

Natalie Cola presents *Seattle City Light strategic posturing: Impacts of narratives on public's perceptions of the organization*. Mentored by Rita Daniels. College: College of Humanities and Social Sciences, Location: 14B.

Joel Curry presents *Western Washington University Theatre Department: A Help or Hindrance to Success?* Mentored by Rita Daniels. College: College of Humanities and Social Sciences, Location: 24B.

Grace deMeurisse presents *Western Talks: Linguistic Diversity at WWU*. Mentored by Kristin Denham, Anne Lobeck. College: College of Humanities and Social Sciences, Location: 49A.

Halley Egnew presents *Syncretic Diabetes Management in Mexico: Towards Equitable Health Outcomes*. Mentored by Kirsten Drickey. College: College of Humanities and Social Sciences, Location: 22B.

Aron Finholt Grace DeMeurisse presents *Western Talks: Linguistic Diversity at WWU*. Mentored by Kristen Drickey. College: College of Humanities and Social Sciences, Location: 79A.

Jon Foster presents *The Education Beat in a Declining Industry*. Mentored by Joan Connell. College: College of Humanities and Social Sciences, Location: 45B.

Samantha Frost presents *Nike In Politics: How Political Consumerism Impacts Corporate Social Responsibility*. Mentored by Brian Bowe. College: College of Humanities and Social Sciences, Location: 19A.

Lauren Gallup presents *Representation of Addiction in the Media*. Mentored by Joan Connell, Lauren Gallup. College: College of Humanities and Social Sciences, Location: 15A.

Jana Iwasaki presents *Gaze but do not touch: Encountering the other and the rhetorics of a post-racial performance by Jana Iwasaki*. Mentored by Rae-Lynn Schwartz-DuPre. College: College of Humanities and Social Sciences, Location: 2B.

Breneya Johnson, presents *Would You Really Date a Black Person?* Mentored by Glenn Tsunokai, College: College of Humanities and Social Sciences, Location: 52A.
Claire Litsky, presents *The Western Front’s Representation of Women’s Athletics 1973-1976*. Mentored by Mary Erickson. College: College of Humanities and Social Sciences, Location: 77B.

Roshae Lowe, Erika Mazza-Smith, Autumn Weis, Ellen Golden, Chuck Tookey presents *Mi clase es su clase: Forging meaningful connections through student-led conversational language workshops for university faculty and staff*. Mentored by Kirsten Drickey. College: College of Humanities and Social Sciences, Location: 69B.

Cassandra McHugh, Aliza Ben-Varon, Fiona Kinsella, Will Hovander, Wes Solem, Robert Bragg, Sam Legg, Sydney Coffey, Jeffrey Cantle, and Jeffrey Carroll presents *Validation of tissue expression and exploration of metabolic phenotypes in hepatocyte-specific huntingtin knockout mice*. Mentored by Jeffrey Carroll, Jeffrey Cantle. College: College of Humanities and Social Sciences, Location: 47A.

Ryan Mouche, Ashley Renfro, Marshall Lance presents *Phrase Structure of Persian: An Analysis of Syntax in Farsi*. Mentored by Kristin Denham, Anne Lobeck. College: College of Humanities and Social Sciences, Location: 29B.

Megan Plummer, presents *Reconstructing Middle Stone Age Paleoclimates in the Lowlands of NW Ethiopia from Isotopic Indicators in Ancient Enamel*. Mentored by Sarah Campbell. College: College of Humanities and Social Sciences, Location: 44A.

Rachel Polito, Ariana Ernotte, presents *Topic Prominence and Complement Roles in Mandarin Syntax*. Mentored by Anne Lobeck, Kristin Denham. College: College of Humanities and Social Sciences, Location: 40A.

Hardeep Tiwana, Wes Solem, Shawn Minnig, Robert Bragg, Jeffrey Cantle, and Jeffrey Carroll presents *Evaluating open-source machine learning tools as an alternative to proprietary automated rodent tracking software*. Mentored by Jeffrey Carroll, College: College of Humanities and Social Sciences, Location: 55B.

Marjean Tomer, presents *Western Washington University’s Strategic Plan: Organizational Ethics and Intentional Ambiguity*. Mentored by Mary Grace Antony. College: College of Humanities and Social Sciences, Location: 47B.

**College of Science and Engineering**

Alisa Aist, presents *Attitudes towards harbor seal presence in downtown Bellingham, WA*. Mentored by Alejandro Acevedo-Gutierrez, Sara Vega. College: College of Science and Engineering, Location: 3B.

Neriah Alvinez, Rikki Uhrich presents *The effects of ubc-6 and ubc-7 mutations on GLR-1*. Mentored by Lina Dahlberg, College: College of Science and Engineering, Location: 51A.

Nikhil Amin, presents *Partial Migration of Steelhead in the Puget Sound: an ICP-MS Analysis of Steelhead Otoliths*. Mentored by Nicole McGowan, Leo Bodensteiner. College: College of Science and Engineering, Location: 18A.

Alexis Ayala, Jayaraman Thiagarajan, Tapasya Patki, Tanzima Islam presents *Performance Optimality*. Mentored by Tanzima Islam. College: College of Science and Engineering, Location: 1B.
Grace Baker, Thanh Le presents *Strategy Flexibility: choosing different systems to apply the work energy principle*. Mentored by Thanh Le, Grace Baker. College: College of Science and Engineering, Location: 80B.


Chase Boggio, presents *Calculating orbits of eclipsing binaries with APOGEE spectra: the low-n limit*. Mentored by Kevin Covey, Marina Kounkel. College: College of Science and Engineering, Location: 17A.

Kendelyn Bone, presents *THE SYNTHESIS OF CANANODINE*. Mentored by James Vyvyan. College: College of Science and Engineering, Location: 37A.

Muawiz Chaudhary, Chris Careaga, presents *Residual Tensor Deep Stacking Networks*. Mentored by Brian Hutchinson. College: College of Science and Engineering, Location: 68A.

William Clem, Sean McCulloch, presents *A Day in the Life of a Supercomputer*. Mentored by Tanzima Islam. College: College of Science and Engineering, Location: 28A.

Kevin Croft, presents *Cytochrome P450 Protein Family 4 Conservation and Diversification Among Flies*. Mentored by Dietmar Schwarz. College: College of Science and Engineering, Location: 55A.


Joseph Doebler, presents *Janus Gold Nanoparticles: Synthesis and Characterization*. Mentored by Ying Bao. College: College of Science and Engineering, Location: 54A.

Elliot Fox, Shane Gao, presents *Improving Isolation with Technologies: A Systematic Analysis on Neurodiverse Individuals And Their Relationships*. Mentored by Ahmed Shameem, Moushumi Sharmin. College: College of Science and Engineering, Location: 65A.


Russell Goebel, Austin Schmaltz, Beth Ann Brackett presents *Modeling and Forecasting the Percent Changes in the National Park Visitation Counts Using Social Media Data*. Mentored by Kimihiro Noguchi, Spencer Wood. College: College of Science and Engineering, Location: 41B.


Ashley Hall, presents *Modeling distances between various attractions and nearest city parks using exponential distribution*. Mentored by Kimihiro Noguchi. College: College of Science and Engineering, Location: 26A.


Kian Hausken, Kimberly Dowdle, presents *Synthesis and Reactivity of Amino Tyrosine Silk Derivatives*. Mentored by Amanda Murphy. College: College of Science and Engineering, Location: 44B.

Wyatt Heimbichner Goebel, presents *The effect of anthropogenic noise disturbance on day-time haul out patterns of harbor seals (Phoca vitulina) at two sites available at all tide levels*. Mentored by Alejandro Acevedo-Gutierrez. College: College of Science and Engineering, Location: 18B.

Bradley Hoefel, Joe Gildner, Sean McCulloch presents *Visual Analytics to Identify the Differences and Similarities between Neurotypical and Neurodivergent College Students*. Mentored by Moushumi Sharmin, Shameem Ahmed. College: College of Science and Engineering, Location: 76A.

Alessandra Hughes, Jessica Trottier, Todd Haskell, Sara Julin, Brittany Murenno presents *Resources for Interdisciplinary Understanding of Energy*. Mentored by Emily Borda, Andrew Boudreaux. College: College of Science and Engineering, Location: 23A.

Heino Hulsey-Vincent, Lina Dahlberg presents *How do E2 ubiquitin-conjugating enzyme mutations affect GLR-1 abundance?* Mentored by Lina Dahlberg, Hulsey-Vincent. College: College of Science and Engineering, Location: 26B.

Quentin Jensen, Chloe Dawson, presents *Performance Annotation Framework*. Mentored by Tanzima Islam. College: College of Science and Engineering, Location: 3A.


Thomas Jones-Moore, David Son, presents *Smart Home Simulation in the Virtual World*. Mentored by Wesley Deneke. College: College of Science and Engineering, Location: 52B.


Kayla Koch, Megan Plummer, Daniel Korus, Justin Doyle, Meredith Boxx presents Poly(methyl methacrylate) functionalized nanocrystal quantum dots for suspension in luminescent solar concentrators. Mentored by David Rider. College: College of Science and Engineering, Location: 64A.

Zach Landram, presents Seasonal Optical Properties of Chromophoric Dissolved Organic Matter (CDOM) in Surface Waters of Fresh Water Lake in Pacific Northwest. Mentored by Catherine Clark. College: College of Science and Engineering, Location: 10A.

Karissa Langevin, presents 2D Confinement of Guided-Wave Plasmon Polariton Modes. Mentored by Janelle Leger. College: College of Science and Engineering, Location: 66A.


Reilly Lynch, presents Nickel-Palladium Phosphide Catalysts For the Selective Hydrogenation of Acetylene. Mentored by Mark Bussell. College: College of Science and Engineering, Location: 5B.

Bailey McCurdy, presents Unraveling genetic interactions at the primary cilium. Mentored by Nick Galati. College: College of Science and Engineering, Location: 7B.


Madison McKay, presents Effects of sport fishing on harbor seal hunting success. Mentored by Alejandro Acevedo-Gutierrez. College: College of Science and Engineering, Location: 15B.

Josh McNamara, presents A molecular traffic jam: How overexpression of Pericentrin restricts the movement of IFT20 between the Golgi apparatus and the Primary Cilium. Mentored by Nick Galati. College: College of Science and Engineering, Location: 16A.


Arielle Michaelis, Aundrea Koger, Samantha Loo, Weston Staubus presents Does adaptation to harsh environments provide protection against parasites? Mentored by Dietmar Schwarz. College: College of Science and Engineering, Location: 23B.
Briana Mulligan, presents *Studies towards the synthesis of ketone containing quaipyridine alkaloids*. Mentored by James Vyvyan. College: College of Science and Engineering, Location: 11B.

Ella Neumann, Hannah Madsen, Ella Neumann, Hannah Madsen, Moushumi Sharmin presents *Activity for All - Physical Activity as an Aid for Mental Health: Targeting Young Adults on the Autism Spectrum*. Mentored by Moushumi Sharmin. College: College of Science and Engineering, Location: 32A.

Grace Nierenberg, Eli Walley-Ferate, presents *Attachment of Tumor Targeting Peptides to Silk Using Palladium Catalyzed Reactions in Water*. Mentored by Amanda Murphy. College: College of Science and Engineering, Location: 34A.

Mckenzie Oliver, Aurora Mattson-Hughes, Wesley Rosales, Glen Drake, Alexandra Putzier, Adrienne Wang presents *A Drosophila Model of Mitochondrial Disease*. Mentored by Adrienne Wang. College: College of Science and Engineering, Location: 50B.

Sage Olson, Joelle Lo, Alyson Silva, Ali Pierce, Tyler Curtis, David Rider, Steven Emory presents *Raman-based optical probes for chemical detection*. Mentored by Steven Emory. College: College of Science and Engineering, Location: 64B.

Evan Panama, Nicholas Ostrovsky-Snider presents *Selective Modification of Silk Film Surfaces*. Mentored by Amanda Murphy. College: College of Science and Engineering, Location: 79B.

McKenzie Riley, presents *Synthesis and LSPR Tuning of Gold Nanorods*. Mentored by Ying Bao. College: College of Science and Engineering, Location: 73A.

Serena Riley, Beth Loper, presents *The role of Vibrio in sea star wasting disease*. Mentored by Marion Brodhagen. College: College of Science and Engineering, Location: 4B.

Allissah Rupert, presents *Upregulation of E3 Ligases to compensate for mutant strains*. Mentored by Lina Dahlberg. College: College of Science and Engineering, Location: 78A.

Silvana Saad, presents *Studies Towards the Synthesis of Rupestines D and G*. Mentored by James Vyvyan. College: College of Science and Engineering, Location: 68B.

Mikaela Sadri, presents *3D Printing of Silk/PEG Hydrogel Scaffolds*. Mentored by Amanda Murphy. College: College of Science and Engineering, Location: 80A.

Jarrod Sage, Alena N. Rainsberry presents *Iridium-promoted conversion of epoxides to primary alcohols under acidic conditions using hydrogen*. Mentored by Margaret Scheuermann. College: College of Science and Engineering, Location: 45A.

Racine Santen, presents *Chemical Modification of Silk Protein via Palladium Mediated Suzuki-Miyaura Reactions*. Mentored by Amanda Murphy. College: College of Science and Engineering, Location: 72A.

Matthew Scoggins, Yichuan Yin, Erin Howard, Chad Schillinger, Richard Olney. Presents *Applying Machine Learning to Improve Stellar Parameters from APOGEE spectra*. Mentored by Kevin Covey, Brian Hutchinson. College: College of Science and Engineering, Location: 67A.

Activity Detection & Speaker Diarization. Mentored by Brian Hutchinson. College: College of Science and Engineering, Location: 33A.

Tierra Smith, Connor Gallagher, presents Exploring Postpolymerization Modification of Reactive Polymers. Mentored by Mike Larsen. College: College of Science and Engineering, Location: 31A.

Mason Starr, Melissa Rice, Cory Hughes, Tina Seeger, Jim Bell III, Danika Wellington presents Methodology for the Creation and Analysis of a Comprehensive Mastcam Multispectral Database of the Curiosity Rover’s Traverse. Mentored by Melissa Rice. College: College of Science and Engineering, Location: 13B.

Lauren Stredicke, Jim Harmon, presents Investigation of Student Attitudes about and Understanding of Energy as Cross Cutting Concept. Mentored by Andrew Boudreaux, Emily Borda. College: College of Science and Engineering, Location: 49B.

Forest Sweeney, Serena Bowen, Cody Pranger, Phillip Wu Liang presents Stress Modelling for participants with Autism Spectrum Disorder. Mentored by Shameem Ahemed, Moushumi Sharmin. College: College of Science and Engineering, Location: 13A.

Madison Syverson, Samantha Neff presents Exploring the impact of RNA Silencing Protein 1 on RNA-dependent RNA Polymerase Complex (RDRC) component levels. Mentored by Suzanne Lee. College: College of Science and Engineering, Location: 12A.

Savanna Takasaki, Sierra Reed, David Brzovic, Dr. John Antos presents Controlling the Equilibrium of Sortase-Mediated Ligations to Modify Proteins and Build Peptide Oligomers. Mentored by John Antos. College: College of Science and Engineering, Location: 17B.

Jeremy Talusig, Tyler Stuber, McKenzie Riley presents Fibrous composites of gold nanoparticles and silk. Mentored by Amanda Murphy, Ying Bao. College: College of Science and Engineering, Location: 75A.

Gaea Turman, presents NucJuke: A web tool for re-ranking CRISPR-Cas9 gRNAs based on chromatin accessibility in yeast. Mentored by Dan Pollard. College: College of Science and Engineering, Location: 43A.

Ryan Wells, presents Effectiveness of virtual reality in CPR and first-response training. Mentored by Wesley Deneke. College: College of Science and Engineering, Location: 46A.

Nathan Williams, presents Land use Effects on Nutrient Concentrations in Streams in the Lower Nooksack River Valley. Mentored by David Hooper. College: College of Science and Engineering, Location: 22A.

Kelly Yokuda, presents Understanding Transition State Searching Algorithms for Hydrazone Photoswitches. Mentored by Tim Kowalczyn. College: College of Science and Engineering, Location: 8B.

Mitchell Yourston, presents Strange Behavior in Stellar Evolution Based on Rotational Period. Mentored by Kevin Covey, Marina Kounkel. College: College of Science and Engineering, Location: 36A.

Fairhaven College
Arthur Takada-Dill, presents **Video Criticism**. Mentored by Niall O Murchu, Babafemi Akinrinade. College: Fairhaven College, Location: 53B.

Kaliane Van, presents **Final Curriculum Project: Ethnomusicology Scope and Sequence**. Mentored by Delores Calderon. College: Fairhaven College, Location: 26A.

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**Huxley College of the Environment**

Julien Bonnard, Breanne Dedera, Julien Bonnard, Breanne Dedera, Mia Suhrbier presents **Testing the Effectiveness of Stabilized Liquid Membrane Devices (SLMDs) in the Presence of Dissolved Organic Carbon.** Mentored by Ruth Sofield, College: Huxley College of the Environment, Location: 50A.

Ethan Brown, Steven Eikenbary, Wayne Landis presents **Risk assessment framework for the introduction of transgenic house mice into the Farallones.** Mentored by Wayne Landis. College: Huxley College of the Environment, Location: 2A.

Sean Fitzpatrick, presents **Honey Bee Nutrition and the Current State of Colony Collapse Disorder.** Mentored by Aquila Flower. College: Huxley College of the Environment, Location: 74A.


Caelan Johnson, Aurora Grant, Trevor Mansmith, Kenjo Pollmann presents **Effect of large woody debris on ungulate browse on early successional riparian tree species in Elwha restoration, Olympic National Park, Washington.** Mentored by John McLaughlin. College: Huxley College of the Environment, Location: 19B.


Colter Lemons, Mary Childress, Apryl Erickson presents **Fungal distribution in the Elwha restoration ecosystem.** Mentored by Jon McLaughlin. College: Huxley College of the Environment, Location: 27B.

Greta Lozada, presents **The Sendtennials.** Mentored by Aquila Flower. College: Huxley College of the Environment, Location: 20A.

Emily McGinty, presents **Dependence of Hydrological Modeling on Spatial Resolution in Lake Whatcom Watershed.** Mentored by Aquila Flower. College: Huxley College of the Environment, Location: 72B.

Caitlin Sidhu, presents **WHERE THE WILD THINGS WERE: AMPHIBIAN SURVEYS IN KITSAP COUNTY, WA.** Mentored by Jenise Bauman, Troy Able. College: Huxley College of the Environment, Location: 48A.

Tasha Smith, Sylvia Yang presents **What environmental factors affect the mortality and growth of hatchery-raised juvenile Olympia oysters.** Mentored by Jenise Bauman. College: Huxley College of the Environment, Location: 71B.

Mia Suhrbier, presents **Desmid Diversity of Five Alpine Lakes in Southwest Washington.** Mentored by Robin Matthews. College: Huxley College of the Environment, Location: 30B.
Alexandra Trejo, Celida Moran, Jennifer Baxter presents *Habitat Selection of Spotted Sandpipers (Actitis macularius) and Killdeer (Charadrius vociferus) on the Elwha River*. Mentored by John McLaughlin, College: Huxley College of the Environment, Location: 69A.

Skylar Wood, Samantha Heinicke, Sylvia Yang presents *Assessing the performance of eelgrass (Zostera marina) from 6 sites in the Southern Salish Sea to elevated temperatures*. Mentored by Jenise Bauman. College: Huxley College of the Environment, Location: 60B.

**Woodring College of Education**