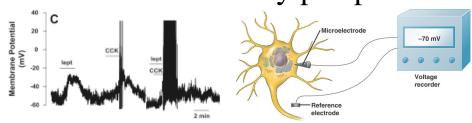


## Bi212:Organisms

# A CLASS COVERING PLANT & ANIMAL PHYSIOLOGY AND DEVELOPMENT



with an evolutionary perspective



and a focus on the experimental data we use to build a scientific worldview

### **SYLLABUS FOR SUMMER 2020**

**Version 1** 

#### Bi 212 General Biology II: Organisms

For more information see our

**Canvas based Website** 

Instructor: Mark Carrier, <u>mcarrier@uoregon.edu</u> 541 346-4199

**OFFICE: 15D Klamath** 

Bi 212 Schedule Summer 2020

## Schedule of due dates for distance lectures, homework assignments, prelabs, labs and quiz and exam times

		Tuesday		Thursday	
	Monday Midnight	Midnight	Wednesday Midnight	Midnight	Friday Midnight
Week 1:	Introduction to class, material and energy flow in cells     Enzymes and Enzyme kinetics     Reading: Symphony paper	Prelabs 1 & 2	Temperature regulation     Reading: Saper paper     The Saper Paper and physiology of size     Basics of plants, recent papers about material covered so far	Lab 1: Enzymes Lab 2: CFTR	6. Plant development 7. Driving force and water potential HW1
Week 2:	QUIZ 10-10:30am 8. Transpiration Reading: Serna Paper 9. Phloem and the Serna Paper	Lab 3: Stats	10. circulation and gas exchange 11. Circulation and the pacemaker 12. Hemoglobin	Lab 4: Forming Research groups	Reading: Goose paper 13. Goose paper then nutrition 14. Plant nutrient homeostasis HW2
Week 3:	EXAM I 10- 11 am 15. Animal nutrition Reading: Goldstein and Brown paper 16. Cholera, CF and Cholesterol	Lab 5: project	17. Goldstein and Brown paper 18. Iron homeostasis 19. Sugar homeostasis	Lab 6: project	20. Germination and light 21. Auxin HW3
Week 4:	EXAM II 10-11am  22. Flowering  23. Animal fertilization	Lab 7: project	24. Animal development 25. Neurons HW4	Lab 8: presentation	FINAL EXAM 10AM-Noon

This schedule is subject to change upon the discretion of the instructor.

#### **Required Meeting Times**

Mondays, Wednesdays, and Fridays 10 am through 12 noon

During which we will work problems similar to test questions and work through labs

#### **Syllabus remote learning insert**

#### **Faculty Statement**

This term we will be exploring new frontiers in college education together. I hope that we can build productive and enjoyable relationships even though we won't get to meet in person. I hope to offer a class that will prepare you very well for upper division courses and standardized exams. I hope that the practice we do of applying scientific reasoning to novel problems will stretch all of us and make us all better students.

I am going to present material about how plants and animals work at the level of whole-body systems all the way down to the level of a key set of cells that act as master regulators of the processes we look at. We will stress learning about the course content from the experimental data that has enabled us to build models of how things work. I think it will blow your mind when you being to recognize patterns that all these processes share, and thus seem to constitute a story of how life works. I think you will love tackling biology as a scientist must – from experimental evidence and scientific publications.

I have always thought of my teaching style as one that prioritizes building community and relationships as well as demonstrating my respect for students by providing a challenge that includes academic rigor and consistent student effort. I will be a rookie at trying to accomplish this from afar – but with your help I think we can get all these things done.

#### Communicating with Me

Our class will communicate through our Canvas site. Announcements and emails are archived there and automatically forwarded to your UO email, and can even reach you by text. Check and adjust your settings under Account > Notifications.

I will host "live" office hours through Zoom each week, and quite a few of the large Bi212 teaching staff will be doing the same. I need to coordinate the times for this with my team, the class, and with my family. We will also experiment with the other forms of communication offered through Canvas. I welcome meetings outside my regular office hours, too, knowing that there is considerable uncertainty in all of our lives right now. Just email me to set something up.

#### **Academic Integrity for Remote Learning**

You will find the University of Oregon's policy on academic misconduct in our full syllabus. In our remote class, I will ask you to certify that your exams/papers are your own work. Exams are timed and Canvas automatically varies the questions students receive. I will adjust times to support students with accommodations through the Accessible Education Center. If a technological glitch disrupts your exam, don't panic. Take a photo to document the error message you're receiving and then email me. The University is implementing new tools for faculty to monitor academic integrity in Canvas assignments. I hope I never need to report a student for cheating – but I am obligated to do so if the situation arises.

Posting class content to external sites without expressed permission of the instructor will be treated as academic misconduct, the penalty for which is failing the course and having the incident recorded on the student's academic record.

#### **Technological Requirements**

This course requires that you use the Canvas website.

Log into <u>canvas.uoregon.edu</u> using your DuckID to access our class. If you have questions about accessing and using Canvas, visit the <u>Canvas support page</u>. Canvas and Technology Support also is available by phone or live chat:

Monday–Sunday | 6 a.m.–12 a.m.

541-346-4357 | livehelp.uoregon.edu

If you face Internet access challenges: computer labs are open for students at the Eugene campus. Some companies are offering free access during this challenging time. To learn more about options visit Information Services' web page on going remote.

#### Grading

The University will continue to issue more details about our situation and our syllabus and course activities may need to be adjusted after the start of the term. I will be mindful of the many impacts the unfolding events related to COVID-19 may be having on you. During this unusual time, if you are not able to do an assignment, please communicate with me and we will strive to create an alternative plan to complete required coursework.

All published evidence supports the hypothesis that regular practice and frequent testing provide the best results in terms of student retention and learning. It is for this reason that I provide so many low point value assignments.

Historically the grade a student receives in Bi212 has been considered a strong predictor of success in Bi214, upper division classes, and standardized tests including the GRE and MCAT. I do not know if grades in the class will correlate as well while the class is offered in remote format, but I am very confident that if you work hard and really master the skills and concepts we present, and learn to do those same set of things that generations of students have learned before you – that you will be well prepared for the next stages of your academic journey.

The details of my grading system are published in the main pages of the syllabus. I wish I could hold off on these and I may ADD grading options to what I have placed in the syllabus. If the grading system I have placed there in black and white ends up being the system that is to your greatest advantage, you can count on it getting you a grade with the standard 90% or better is some kind of A, 80% or better some kind of B conversion of course points to letter grade.

#### Discussion and Engagement Guidelines for Remote Participation

The following are the suggested instructions the university provides for remote participation in UO courses. I am particularly invested in item 4. All of this is new and scary and exciting for me – and I hope those of you with experience in live internet interactions will model best practices to those of us who are new to the game.

- 1. **Participate and Contribute**: Students are expected to participate by sharing ideas and contributing to the collective learning environment. This entails preparing, following instructions, and engaging respectfully and thoughtfully with others. More specific participation guidelines and criteria for contributions will be provided for each specific activity.
- 2. **Use Proper Netiquette**: Please use good "net etiquette": identify yourself with your real name, write or speak in the first person, and use a subject line that clearly relates to your contribution. Good netiquette also means using humor or sarcasm carefully, remembering that non-verbal cues (such as facial expressions) are not always possible or clear in a remote context. In addition, your language should be free of profanity, appropriate for an academic context, and exhibit interest in and courtesy for others' contributions. Certain breaches of netiquette can be considered disruptive behavior.
- 3. **Interact Professionally**: Our learning environment provides an opportunity to practice being professional and rigorous in our contributions. As much as possible, use correct spelling, grammar, and style for academic and professional work. Use discussions and activities as opportunities to practice the kind and quality of work expected for assignments. Moreover, seize the chance to learn from others and develop your interpersonal skills, such as mindful listening and awareness of one's own tendencies (e.g. Do I contribute too much? Too little?).
- 4. **Expect and Respect Diversity**: All classes at the University of Oregon welcome and respect diverse experiences, perspectives, and approaches. What is not welcome are behaviors or contributions that undermine, demean, or marginalize others based on race, ethnicity, gender, sex, age, sexual orientation, religion, ability, or socioeconomic status. We will value differences and communicate disagreements with respect. We may establish more specific guidelines and protocols to ensure inclusion and equity for all members of our learning community.
- 5. **Help Everyone Learn**: Our goal is to learn together by learning from one another. As we move forward learning during this challenging time, it is important that we work together and build on our strengths. Not everyone is savvy in remote learning, including your instructor, and this means we need to be patient with each other, identify ways we can assist others, and be open-minded to receiving help and

advice from others. No one should hesitate to contact me to ask for assistance or offer suggestions that might help us learn better.

#### **Specific guidelines for best practices using Zoom:**

- 1. Please test your video and audio prior to joining a live class session. You can learn more about testing your audio and video by visiting the Zoom Help Center at https://support.zoom.us/hc/en-us
- 2. Try to be on time when the meeting starts. It can be distracting to have participants join late.
- 3. Be mindful that others can see you and your surroundings if your video is on. Try to find a quiet setting without lots of noise or busy activities in the background. Please minimize distractions like eating or multitasking and speak and use gestures like you would in person.
- 4. Use a microphone or speak closely to your computer microphone so that others can hear you. If you have video on, try to look at your camera, not the screen, when you are contributing.
- 5. Mute your audio when you are not actively contributing. When contributing, avoid making other noises such as typing or eating or having side conversations with others that might be present with you.
- 6. Use chat to pose questions or offer insights "on the side" while others are contributing.
- 7. If you prefer to use a static image instead of video, you can keep your video off.
- 8. For help and troubleshooting with Zoom, visit the Zoom Help Center at <a href="https://support.zoom.us/hc/en-us">https://support.zoom.us/hc/en-us</a>

#### **Course Overview**

The purpose of this class is to invite students to join the scientific community in our quest to use experimental data to increase our understanding of how life works.

This course is about plant and animal physiology and development. We study the constraints set by geometry, the environment, and natural laws that dictate what organisms must accomplish in order to survive and reproduce. We study the forces and machinery that allow movement across membranes, enzyme regulation and kinetics, differential gene expression, and mechanisms of cellular computation and perception. We generate models of systems that organisms use to create homeostasis, which is an internal environment in which their individual cells can participate optimally in the process of meeting the challenges of life on earth. We also study how cells manage to take on specific and unique roles in the organism, which is the study of developmental biology.

Students taking the course will learn how to carry out epistatic analyses of various biological pathways and to interpret and generate complex graphical representations of data. Students propose, design, and conduct experiments on the physiology of long-range transport in plants or animals. They analyze the data they generate and write a scientific paper describing their work. This course is part of the introductory biology sequence, and has as a prerequisite Bi211. This course is itself a prerequisite for Biology 214 (but not 213) and for the introductory human physiology sequence.

#### **Course Prerequisites**

The prerequisites for Bi 212 are C-, P, or better in Bi 211 and one term of Chemistry (111 or higher).

#### **Bi211-214 Sequence Goals**

There are three major goals for the Bi211-Bi214 sequence.

**Concepts** The diversity of organisms on earth is awe inspiring, but so too is the commonality of all life. We will focus the course on a reasonably small set of concepts that will help us understand how all organisms work.

To succeed in this course, students will need to demonstrate a working understanding of these major concepts, and be prepared to apply their understanding to novel situations as well as to demonstrate comprehension of these concepts in the context of examples we discuss in lecture.

**Skills** It is important for all citizens to be scientifically literate, whether or not they are in a science profession. Part of science literacy is the ability to find, evaluate, and communicate or act on scientific information and issues. We will practice these skills in this course. We take a quantitiative approach to the study of organisms, and the skills practiced include making sense of scientific data, evaluating experimental design, understanding and generating written and graphic reprentation of scientific data

Science as a process: We think that it is important for all people, not just professional scientists, to understand how science works. To learn to be a better scientist you will read scientific papers and discuss not only the findings, but also how science is conducted. You will practice scientific methodology by learning to test hypotheses (even in lecture), doing controlled experiments, and evaluating observational studies. The focus of this term will be experimental design, and how we obtain evidence to test a hypothesis.

#### **Bi212 Course Goal**

Study the commonality of mechanisms used by plants and animals to meet the challenges of aquatic and terrestrial environments so we may derive or reveal the basic principles of physiology that apply to all organisms.

#### **Bi212 Course objectives**

#### Students will:

- ...learn to use primary literature sources to obtain specific information that they can use to *generate models* of biological systems
- ...learn to *interpret* and *generate* complex graphical representations of data
- ...study several established models of the mechanisms used to maintain such aspects of organismal homeostasis as temperature regulation, metabolic rate regulation, blood flow regulation and plant gas exchange regulation to establish a pattern of what these processes have in common; to enable them to then *predict* how other aspects of homeostasis will be accomplished.
- ...learn to use single and double mutant phenotype data to *carry out epistatic analyses* and *generate models* of how physiological regulatory systems operate.
- ...learn and apply basic principles of enzyme kinetics to *predict* how the regulation of enzymes is used to maintain homeostasis in each of the covered physiological systems, and *identify* the types of regulation being used on the basis of experimental results.
- ...Study the regulation of metabolic processes in relation to all aspects of physiology to solidify students understanding of energy flow as a basic principle of life.
- ...Study the role of differential gene expression and developmental genetic pathways to *make or critique predictions* about how cells take on specific roles in multicellular organisms.
- ...Students investigate specific results of the experimental use of genetic constructs to alter or reveal gene expression patterns in plants and animals, and use this training to *make predictions* about the most likely outcome of experiments in which other constructs are used.
- ...learn to generate hypotheses, carry out and modify experimental protocols, collect data, carry out statistical analyses, and generate papers formatted and organized to be appropriate for a typical scientific journal.
- ...apply concepts of equilibrium potential and driving force to a variety of physiological systems

#### **Course Format**

**Zoom classes** (Monday, Wednesday and Friday, 10 am to 12 noon) You should be familiar with the assigned readings before coming to a conference. Exams and quizzes are given during lecture hours except for the final exam.

#### Lab/Discussion activities

The focus of labs will be to investigate the process of hypothesis driven science. Five of the ten labs will be devoted to designing, conducting, analyzing, and presenting experiments in physiology. See the section on Student Investigation Project for a more detailed explanation. Each laboratory exercise is introduced by a **Pre-lab**. You should complete the pre-lab and read the lab before attending the lab session. The Pre-lab will introduce you to the topic to be covered in lab and help focus your thinking so that you will get more out of the laboratory. It's too bad we can't offer you onsite practice working with lab equipment this Spring, but we'll get you up to speed on how they are used and how they work, so tht when you encounter them in person you will have a good foundation for doing lab work.

#### **Office Hours:**

The number of office hours to be offered for this class is very large. The course instructor offers around **15** office hours/week in addition to HW problem solving sessions during the in-person teaching terms. I am not sure how to best deploy my time for maximum availability/access but I intend to spend lots of hour s with you if want to use them. PLEASE USE THEM!

#### **Grades**

"Distance lecture assignments"	35%
"lab assignments"	15%
Homework	10%
Quiz	5%
Midterms	20%
Final exam	15%

#### Readings

Textbook Biological Science by Freeman, Any edition.

The text is not required for bi212 but should be used as a general reference throughout the three quarters of General Biology. Pertinent chapters are indicated in the schedule below; specific page assignments will be given as we proceed. The readings include background material useful to prepare you for lecture and for studying for exams. We don't expect you to remember all the details in this material. A good strategy is to read the material twice: the first time skim over it, concentrating on the major concepts; the second time read it more carefully, concentrating on the parts relevant to the homework, lectures, or labs. You may expect that exams will cover only the material covered in lecture, but the text will provide a context and an alternative method of explaining that material.

#### **Articles:**

We will make available a set of assigned and a set of optional readings on our website. Our textbook provides plenty of information and covers a wider range of topics than we cover in all four semesters of this biology sequence. Textbooks in general fail to provide an idea of the evidence supporting the models we teach for how biological systems work, and the processes that lead to our understanding of how things work. They tend to simplify too much. Our assigned articles are designed to provide examples of the science methodology that leads to an understanding of the field, and to offer up to the minute coverage of topics that may not make it into textbooks for years to come.

#### Grading

Attendance at lab is mandatory. Missing multiple labs without an acceptable excuse will result in a failing grade for the course.

Homework Assignments There will be four homework assignments during the quarter. The homework will help you to learn the material from your readings, lectures and labs that we think is important and thus may be included on the exams. Homework assignments will have a Canvas based, computerized version that will be the graded form of the assignments. The PDF version is what you should use to do the homework yourself, because if you do you will have generated an excellent quiz and exam study tool. I will hold HW sessions to help you understand these problems, and using this resource will almost certainly be worth your while.

Solutions to the homework will be posted on the web just after the due-date, so **late homework will not be accepted**.

You must do your own work on homework. <u>Copied homework will be treated as academic dishonesty</u>. It's not smart to cheat on homework anyway, the homework is there because if you can figure out these answers you'll do well on tests.

THESE ARE PART OF YOUR GRADE

Laboratory activities and the Student Investigation Project Distance versions of Bi212 labs are heavy on data analysis, as the process of carrying out physical experiments without access to campus is not feasible. A big fraction of the lab time will be dedicated to reading research papers and generating a research proposal, but we will also be presenting the theory and pretical application of laboratory tools and equipment. We intend to work as groups generating hypotheses and developing experiments to test these hypotheses. Throughout the lab we will look at and create pieces of scientific writing. Suffice it to say that our goal is to give you practice reading and writing science, practice thinking up experiments, and practice finding existing research relevant to a given topic. THESE ARE PART OF YOUR GRADE

Exams and grading: There will be three exams (two midterms and a comprehensive final) and one quiz. The exams will cover material from all aspects of the course including lectures, labs and readings. Exams will probe a deep understanding of the concepts and principles discussed, and an ability to apply the concepts to novel situations. EXAMS CANNOT BE MADE UP. EVERYONE IS REQUIRED TO TAKE THE FINAL EXAM. BE CAREFUL WHEN MAKING TRAVEL PLANS AS THE FINAL IS ON FRIDAY AUGUST 14<sup>TM</sup> AND THERE WILL BE NO EARLY EXAMS AND NO MAKE-UP EXAMS.

Quizzes and exams will be deployed using Canvas quiz and assignment software. The university is acquiring new tools to ensure academic integrity in remote testing applications. We will proctor these tests using zoom. THESE ARE PART OF YOUR GRADE

**Distance lectures:** I will present lectures in the form of Canvas assignments in which questions contain video and written presentation of course content. We will use Canvas to pose questions that can be graded by computer and provide you with pretty much instant grading and feedback as to your understanding of the material as it is presented. We will use these assignments as the mechanism of content delivery that would have been provided in person in lecture if we were on campus together. I will provide these as assignments you can complete asynchronously – which means whenever you like before the deadline. **THESE ARE PART OF YOUR GRADE** 

"In class time" I will use the 10-12 lecture slot to create video remote conferences with the class. I am new to conferencing software so it may start out rough. The purpose of these meetings will be to generate an interactive environment in which we can discuss both the lecture and lab compnents of the class. They will not replace the other assignments, and although I do intend to work problems on a virtual chalkboard with you that I believe will be excellent test preparation, I will not introduce novel content during these events. THESE ARE NOT PART OF YOUR GRADE, BUT WILL PROBABLY BE A HEAVUY INFLUENCE ON TEST GRRADES

#### Student, instructor, and staff conduct

This syllabus is, in effect, an agreement about how all of us will carry out our duties and conduct ourselves this quarter. You should read this carefully and talk to us about it as soon as possible if you are uneasy with parts of this syllabus. We will work hard to make this course valuable to your learning. We welcome suggestions from you at any time about things you think could be done to improve the course. In return, we ask that you arrive at lab and lecture conferences on time and stay until class is over without making unnecessary noise that could distract your classmates (please turn cell phones off).

#### **Academic integrity**

All students will be expected to adhere to the University's guidelines on academic integrity as outlined in the Student Conduct Code: <a href="https://policies.uoregon.edu/vol-3-administration-student-affairs/ch-1-conduct/student-conduct-code">https://policies.uoregon.edu/vol-3-administration-student-affairs/ch-1-conduct/student-conduct-code</a>. As detailed in the policy, academic misconduct means the violation of university policy involving academic integrity. This includes cheating ("any act of deception by which a student misrepresents or misleadingly demonstrates that the student has mastered information on an academic exercise that the student has not mastered"), and plagiarism ("using the ideas or writings of another as one's own.") The instructor has a zero tolerance policy for academic dishonesty. All persons involved in academic dishonesty will be disciplined in accordance with University regulations and procedures.

This doesn't mean you shouldn't talk with other students about what you are thinking or writing; it does mean that when you write something, it should be in your own words, not copied from someone else. We take this seriously and have sent several academic dishonesty cases to the Student Judicial Affairs Office. It is one of the least favorite parts of our job and it can have serious consequences for your academic career. Please don't be tempted to commit any of these offenses. Resubmitting your work from previous terms is also academic dishonesty. Since the use of iClickers in this course contributes to each student's final grade, inclass misuse of these devices may be considered as acts of academic misconduct; this includes the loaning your iClicker to a classmate who registers responses in your absence from lecture. If a student is caught using two iClickers, both that student and the owner of the loaned device will, at the very least, lose all clicker points for the term. The few points gained from such actions is not worth the risk of a misconduct charge.

Zoom noise issues Out of respect for other students, and in keeping with departmental policy, you should plan to arrive at class on time and to stay until class is over. We ask that you not interfere with the ability of other students to learn by making noise when someone else (instructor or classmate) is talking. It is particularly important to mute yourself when not actively participating. I don't know how the distance learning environment will look with so many participants – but please monitor your own behaviour with respect to how it helps or hinders the learning of the community.

#### **Personal Emergencies**

We all have crises now and then. If you are having a problem that interferes with your ability to do the work in this class, please tell us about it as soon as you can. We are willing to give grades of incomplete or to make some kinds of special arrangements when the need is real **and** when you have done your best to deal with the situation and let us know about it in a timely manner.

**Diversity** Open inquiry, freedom of expression, and respect for difference are fundamental to a comprehensive and dynamic education. We are committed to upholding these ideals by encouraging the exploration, engagement, and expression of divergent perspectives and diverse identities.

#### **Discrimination and Harassment**

Prohibited Discrimination and Harassment

Any student who has experienced sexual assault, relationship violence, sex or gender-based bullying, stalking, and/or sexual harassment may seek resources and help at <a href="mailto:safe.uoregon.edu">safe.uoregon.edu</a>. To get help by phone, a student can also call either the UO's 24-hour hotline at 541-346-7244 [SAFE], or the non-confidential Title IX Coordinator at 541-346-8136. From the SAFE website, students may also connect to Callisto, a confidential, third-party reporting site that is not a part of the university.

Students experiencing any other form of prohibited discrimination or harassment can find information at <a href="respect.uoregon.edu">respect.uoregon.edu</a> or <a href="mailto:aaeo.uoregon.edu">aaeo.uoregon.edu</a> or contact the non-confidential AAEO office at 541-346-3123 or the Dean of Students Office at 541-346-3216 for help. As UO policy has different reporting requirements based on the nature of the reported harassment or discrimination, additional information about reporting requirements for discrimination or harassment unrelated to sexual assault, relationship violence, sex or gender based bullying, stalking, and/or sexual harassment is available at <a href="mailto:Discrimination.edu">Discrimination</a> & <a href="mailto:Harassment">Harassment</a>.

#### Reporting

The instructor of this class is a Student-Directed Employee. As such, if you disclose to me, I will respond to you with respect and kindness. I will listen to you, and will be sensitive to your needs and desires. I will not judge you. I will support you. As part of that support, I will direct students who disclose sexual harassment or sexual violence to resources that can help. I will only report the information shared to the university administration when you as the student requests that the information be reported (unless someone is in imminent risk of serious harm or is a minor). Please note the difference between 'privacy' and 'confidentiality.' As a Student-Directed Employee I can offer privacy because I am not required to report certain information to the university. However, I cannot be bound by confidentiality in the same way that a counselor or attorney is. Confidential resources such as these means that information shared is protected by federal and state laws. Any information that I as a student-directed employee receive may still be accessed by university or court proceedings. This means, for example, that I could still be called as a witness or required to turn over any related documents or notes that I keep.

Please note also that I am required to report all other forms of prohibited discrimination or harassment to the university administration. Specific details about confidentiality of information and reporting obligations of employees can be found at <a href="mailto:titleix.uoregon.edu">titleix.uoregon.edu</a>.

Mandatory Reporting of Child Abuse

UO employees, including faculty, staff, and GEs, are mandatory reporters of child abuse. Child abuse pertains to individuals who are under the age of 18. This statement is to advise you that your disclosure of information about child abuse to the instructor may trigger my duty to report that information to the designated authorities. Please refer to the following links for detailed information about mandatory reporting: Mandatory Reporting of Child Abuse and Neglect.

#### Campus resources to support your learning

**Academic Resoures for Students** The Tutoring and Academic Engagement Center (Knight Library 4<sup>th</sup> floor; <a href="https://apps.ideal-logic.com/uotutoring">https://apps.ideal-logic.com/uotutoring</a>) provides Individual tutoring (private-hire) available through the

Learning Specialists can help you with strategies for success in BI 212 and the sciences in general. You can work on time management, note-taking, effective study skills, etc. To make an appointment, call <u>541-346-3226</u> or schedule online at <a href="https://engage.uoregon.edu/services/">https://engage.uoregon.edu/services/</a>

Counseling Center Call anytime to speak with a therapist who can provide support and connect you with resources. Located on the 2<sup>rd</sup> Floor of the Health Center(541)346-3227

Accessible Education Center The University of Oregon is working to create inclusive learning environments. The instructor believes strongly in creating inclusive learning environments. If there are aspects of the instruction or design of this course that result in barriers to your participation, please notify us as soon as possible. You are also encouraged to contact the Accessible Education Center. If you are not a student with a documented disability, but you would like for us to know about class issues that will impact your ability to learn, we encourage you to come visit during office hours so that we can strategize how you can get the most out of this course. Located on the 1\*Floor of Oregon Hall (541) 346-1155, email at uoaec@uoregon.edu

Center for Multicultural Academic Excellence (CMAE) mission is to promote student retention and persistence for historically underrepresented and underserved populations. We develop and implement programs and services that support retention, academic excellence, and success at the UO and beyond. We reaffirm our commitment to all students, including undocumented and tuition equity students. Located on the 1st Floor of Oregon Hall (541) 346-3479, cmae@uoregon.edu

The *UO Access Shuttle* is an on-campus ride service provided at no cost to students with conditions that limit mobility. More information and a sign-up form can be found on the parking & transportation department website: <a href="https://parking.uoregon.edu/content/access-shuttle">https://parking.uoregon.edu/content/access-shuttle</a>.

#### **Class Courtesy**

Please arrive in class on time. Late arrivals distract the instructor and the other students. Please turn off cell phones during the class meeting times. Use your laptop only for class activities when givenapproval by the instructor. Do not leave class early unless you have cleared it with the instructor in advance. Ask questions if you did not hear or understand something.

Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the quarter (or before) so that I may address you properly.

Open inquiry, freedom of expression, and respect for difference are fundamental to a comprehensive and dynamic education. We are committed to upholding these ideals by encouraging the exploration, engagement, and expression of divergent perspectives and diverse identities. Classroom courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, culture, religion, politics, sexual orientation, gender, gender variance, and nationalities. Our classroom is a learning environment, and as such should be a safe, inclusive and respectful place. Being respectful also includes using preferred pronouns for your classmates. Disrespecting fellow students as well as combative approaches, tones and/or actions are not acceptable. Please make me aware if there are classroom dynamics that impede your (or someone else's) full engagement.