





# BI 211 General Biology I: Cells Fall 2023 Instructors: Dr. Molly Jud (mjud@uoregon.edu)

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# Important Notes About Exams

# Midterm Exam 1:<br/>Midterm Exam 2:Monday 10-16-23, 11:00-11:50pm, Prince Lucien Campbell Hall 180<br/>Monday 11-13-23, 11:00-11:50pm, Prince Lucien Campbell Hall 180<br/>Monday 12-4-23, 5:00-7:00pm, location TBD

Regardless of reason, there will be no early or make-up exams allowed for any exam for Bi211. You must notify your instructor by email by the <u>END OF THE FIRST WEEK OF CLASS</u> if you have any conflicts with any exam. The final exam is required and scheduled for the Monday of Finals Week, so please do not plan any travel before it. If you have to miss the final exam, you risk failing the course or taking an incomplete, both of which can affect your ability to move on through the intro biology sequence (BI 212, BI 213, BI 214). An incomplete grade must be agreed upon with your instructor well before the final exam date and the appropriate paper work will need to be submitted to the Registrar's Office. For more information: https://registrar.uoregon.edu/current-students/incomplete-policy

# Learning Outcomes for BI 211 General Biology I: Cells

In this first course of the general biology sequence, we study biological processes from a molecular and cellular prospective. These concepts are central to understanding all other areas of biology. All organisms must accomplish two major functions: 1) extract energy from their environments to build and maintain their bodies, and 2) reproduce themselves. We start by studying the four types of biological macromolecules that build organismal bodies: carbohydrates, lipids (e.g., fats), proteins, and nucleic acids (e.g., DNA). We then examine how cells obtain from the environment the building blocks for constructing these macromolecules and the energy for manipulating them to carry out body functions. Next, we examine reproductive functions, beginning with the two types of cell division, mitosis and meiosis. From there, we study genetics, how traits pass from parent to offspring, starting with the structure and replication of DNA followed by how genes code for proteins. Finally, we look at the genetic basis of inheritance, including Mendelian genetics, pedigree analysis and the genetics of complex traits. Many of these topics are taught using a case-study approach, mostly using examples of genetic diseases in humans. BI 211 is a prerequisite for all the other general biology courses in the sequence (BI 212, BI 213, and BI 214) and counts towards the Core Educational Requirements as a Natural Science Area of Inquiry course.

# The goals for BI 211 fall into three categories:

- (1) to learn the foundational concepts related to cellular and molecular biology.
- (2) to develop skills in analytical thinking that will serve students in natural science classes.
- (3) to develop **career competencies** that are vital to success in any field.

# Concept-based goals:

- (1) Biological macromolecules: To describe the chemical structures and major functions of the four major types of large biological molecules that make up all living organisms.
- (2) Energy Harvest Pathways: To understand energy harvest pathways, including cellular respiration, fermentation and photosynthesis, and their relevance to human disease.
- (3) Mitosis and Meiosis: To describe and illustrate chromosomal and cellular events during the various stages of both mitosis and meiosis, with a focus on their roles in cancer and Down Syndrome.
- (4) Gene Expression: To understand and describe the major processes involved in gene expression, including the mechanisms of protein synthesis, comprising transcription and translation, and how they are controlled to determine phenotype.
- (5) Mendelian Genetics: To understand the basis of transmission genetics and solve problems using Mendel's first and second laws; to analyze genetic pedigrees.

## Skill-based goals:

- (1) To develop competency in the basic terminology and methodologies used in the biological sciences.
- (2) To learn the process of scientific inquiry and its applications.
- (3) To learn how to learn about biology.
- (4) To learn to communicate knowledge, ideas and reasoning clearly and effectively in oral and written forms.

# **Career Competencies:**

In the natural sciences, we often define our education by the content we learned, the facts we know. But this is only one aspect of what you gain from your coursework, and arguably not the most important. After all, a lot of the knowledge you need for your career you learn on the job and a growth mindset dictates that what we know is not static but continues to evolve as our life trajectory changes.

Equally important to success are the competencies you develop, what you learn to do. Competencies are not readily apparent on your transcript, and they are not often explicitly emphasized in courses, but they are of vital importance to employers and to maintaining a growth mindset. If you can express how your education has allowed you to develop the competencies employers want, you will have a substantial advantage in interviews, on entrance essays, and when writing your resume. So, what are the competencies that employers want, and how will this class help you develop them?

Many, many, online sites discuss career competencies, sometimes referred to as Job Skills. These are generally expressed as variations on the same major themes. We will focus on the National Association of Colleges and Employers (NACE) Career Readiness Competencies. According to a 2019 survey of 172 employers, the competencies that employers' rate as most essential for career readiness are:

- 1. Critical thinking/problem solving (4.66)
- 2. Teamwork/collaboration (4.48)
- 3. Professionalism/work ethic (4.41)
- 4. Oral/written communications (4.30)
- 5. Digital technology (3.84)
- 6. Leadership (3.65)
- 7. Career management (3.38)
- 8. Global/multi-cultural fluency (2.78)

1=Not essential, 2=Not very essential, 3=Somewhat essential, 4=essential, 5=Absolutely essential

As you progress through this class please keep in mind that learning to maintain focus on difficult tasks, solve complex problems, navigate group dynamics, express yourself clearly and professionally, manage your time so you can complete work by its due date, and identify how you fit into the greater scientific community, are just as important as the content you learn, and more transferable to the various avenues your life will take.

# **Course Prerequisites**

Students must have successfully completed one college level chemistry class. If you are going to take only one chemistry course, we recommend that you take CH111, CH113 or CH114 rather than the general chemistry sequence. A year of general chemistry (CH 221-223), with lab, is required to complete a biology major. The prerequisites for BI 211-214 are strictly enforced.

# **Course materials**

You will need to purchase an <u>iClicker</u> (*Personal Response Systems*) and <u>Course Packet</u> for this class. Both the iClicker remotes and Course Packet are available for purchase from the UO Duck Store (items can be ordered here: https://www.uoduckstore.com/). Your personal iClicker remote must be registered on Canvas before your first day of class as we will be using iClicker starting the first day. Hard copies of Course Packet must be brought to each lecture and lab. If you do not wish to purchase the Course Packet from the Duck Store, you can download it from the course Canvas site and print it yourself (at home, at the library, etc.). <u>All other resources</u> will be available online through the course Canvas site.

# **Help Sessions**

Your instructor will have two office hour sessions weekly, each for a length of about 1 hour. Molly's help sessions will be held every Monday and Friday from 12:00-12:50pm in Prince Lucien Campbell Hall 361 (PLC 361). Nicola's help sessions will be held every Monday from 2:00-2:50pm in Gerlinger 303 (GER 303) and every Wednesday from 11:00-11:50am in McKenzie 373 (MCK 373). Your instructor will also be available to meet by appointment (mjud@uoregon.edu, nbarber@uoregon.edu).

Each of our GE's (Graduate Employee's) will have 1 hour of office hours per week. Our Biology Undergraduate Tutors (BULAs) will each have one tutor session each week. Hours and locations will be posted on canvas by the end of week 1.

All help sessions will be offered weekly, except on University observed holidays. If any help sessions are cancelled or rescheduled (due to instructor/GE/BULA illness or unforeseen emergency), we will notify you by Canvas announcement.

# **Course Format**

# Important notice:

Posting course material including videos, lecture notes, problems, and solutions, on any platform that is not officially affiliated with the course is prohibited and will be treated as academic misconduct, reported to the Dean of Students Office, and result in an F grade in the course. This applies during the course and retroactively. If you have questions about what is appropriate and what is not, please ask. Ignorance will not be an acceptable defense. Cheating of any kind is strictly prohibited. If suspected of cheating, you will earn a zero on the assignment and be reported to the Dean of Students Office. If found responsible for a violation of the Student Conduct Code related to the misconduct described above, you can expect to be subject to disciplinary action which will be reportable on your student record and include a failing grade (F) in the course. For more information, see "Academic Misconduct" later in this document.

# In-person components

# Lectures:

Dr. Nicola Barber teaches one lecture section Monday, Wednesday and Friday, 10:00-10:50am in McKenzie Hall 129. Dr. Molly Jud teaches a second lecture section Monday, Wednesday, and Friday 11:00-11:50am in Prince Lucien Campbell Hall 180. **You must attend the lecture that you are enrolled in**; iClicker credit is not transferable between the two lecture sections. Some lectures will include activities that help you actively engage with the material. These activities will often be done collaboratively with a small group of students discussing the problem together for a few minutes before discussing it as a whole class. Your active participation will help you to understand the material and better prepare you for exams.

Your application of two principles will help you learn biology. First, **learning is done by the learner**. In other words, the structure of the class helps identify the important concepts and skills, organizes the material, provides practice, and encourages learning, but only students themselves, by putting in effort on a continuing (and not binge) fashion, can actually do the learning. Second, **the speaker is doing the learning**. In a lecture, it is the lecturer who, during preparation, is learning the material, not necessarily the people listening. On the other hand, when explaining one's answer on an iClicker question, the person who is doing the talking is doing the learning about the material. When possible in class, you will be encouraged to speak with other students about the material (and are encouraged to do so outside of class as much as possible) as a strategy for reinforcing the concepts you are expected to learn.

# iClickers during lecture (Personal Response Systems)

iClickers will be used in every class to encourage active participation and to provide feedback to instructors and students. Each student should purchase an iClicker for use in this class before the first day of classes. You must register your clicker on the course Canvas site. Questions during lecture that require clickers will be multiple choice. Clicker questions will be graded based on participation and not on correct answer. Total percent for the clicker portion of your grade will be based on 85% of the total possible iClicker points: your clicker grade = (total points earned)/(85% of total points possible). This grading scheme is in place to accommodate <u>excused</u> absences (and the occasional time that you forget your clicker), it is not intended to accommodate missed class for frivolous reasons. iClicker problems are not simply a means of taking attendance. They allow students to grapple in real time with the material under discussion. Furthermore, they provide an opportunity to exercise the principle that the speaker is the one doing the learning because first, when you answer the iClicker problem you are 'speaking', and second, you may be asked to verbally explain your answer to either the class or to a student who selected a different answer than yours.

#### Labs:

Wednesdays and Thursdays in Esslinger (ESS) 112 for those enrolled in Dr. Molly Jud's lecture section or Esslinger (ESS) 116 for those enrolled in Dr. Nicola Barber's lecture section.

Lab attendance is mandatory (unless you are sick or asked to quarantine). We consider the labs to be an integral part of the course. In lab, you will explore the diversity and complexities of cells, model major concepts in cellular biology, discuss issues related to cellular biology, and perform scientific investigations to understand the mechanisms of inheritance. The course packet, available for purchase at the UO Duck Store, contains the lab handouts for each week. Lab handouts will be turned in at the end of each lab or the beginning of lab the following week (due dates will be announced each week in lab). Part of the lab grade will be based on participation in lab. Most labs cannot be made up in-person because they involve special material or equipment (see *Absence/Late Work Policy* below). That said, if you are sick, please stay home and take care of yourself (see *Absence Policy* below).

# **Other Graded Work**

# Mandatory Monday Videos (due most Mondays at 9:00am):

These ~20-40min videos cover required course content. In some cases, they introduce content so we can go into more depth in lecture, in other cases they present complex concepts that we will reinforce in lecture. Your grade for these videos will be based on questions embedded within the videos.

Each week there will be one mandatory video, due usually on Monday, and several optional videos that also have embedded questions. The mandatory video is worth points based on answering the embedded questions correctly. Mandatory videos will be due on time as it is important to watch these prior to class; the mandatory video content will not be covered in lecture but is required content that will be applied during lectures and on all other assessments. Not watching them on-time means you will likely be unprepared for clicker questions during lecture. Failure to watch the video on time will result in an automatic zero for that video assignment. We encourage you to watch all the videos, including the optional videos of which the content will be covered during lecture, to review the course content. Due to various reasons, the video score might not be accurately reported in Canvas; your instructors will use Panopto to accurately determine your video score at the end of the term.

# Weekly individual canvas review quizzes (usually due on Saturday 11:59pm, though sometimes on Tuesdays):

The individually completed quizzes will test basic knowledge of course content. Most of the questions will test recall of information instead of synthesis and application. These quizzes are available on canvas and will be graded by canvas.

Practice quizzes (which use the same question banks as the graded quizzes) are also available in the review materials on canvas. While it is important to do well on the quizzes, they are only part of what is needed to be successful in the class.

# Group problem sets (usually due in lab):

Group problem sets are arguably even more important than the quizzes because they will test higher order skills like application, modeling, and synthesis of the content learned in class. In addition, group problem sets allow you to practice working with others and troubleshooting complex group dynamics when need be. These problem sets will be completed with your group, established in lab. Only one set will be turned in per group. You are expected to contribute to each group problem set even during absences; failure to contribute might lead to your name being omitted from the assignment and an earned grade of zero. You may get help on these during help hours, but only if you have shown an earnest attempt to answer the question beforehand.

Your problem sets will be graded consistently for everyone in the class but some weeks we will grade the entire set, other weeks we will grade one or two problems selected from each set and use that as your entire problem set grade for the week. You will not know in advance which problem the GE will grade, or if they will grade the entire set so, please complete each set as though it will be graded in its entirety.

**Big Picture assignments (usually due on Friday at 11:59pm):** These Canvas assignments are designed to build metacognitive skills and relate what we learn in this class to other science courses. They also include exercises that develop important information literacy skills.

# Extra Credit Surveys:

These surveys are to introduce yourselves to the instructors, gather midterm and end-of-course feedback, and evaluate (and self-evaluate) problem solving groups.

# Exams:

This course has three exams (the midterms are each 50 minutes and the final exam is 2 hours). The two Midterm Exams will be taken during your lecture period and the Final Exam is a joint night exam at the end of the quarter. Exams will cover material from all aspects of the course including lectures, labs, and videos. Exams will probe a deep understanding of the concepts and principles discussed, not merely a recitation of facts, and an ability to apply the concepts to novel situations, rather than a memorization of detail. **The only acceptable reasons to miss an exam are sickness, mandatory quarantine, or an unforeseen emergency; in these cases, you must contact your instructor as soon as possible to discuss your absence**. Exams are graded by GEs under the supervision of faculty. To promote consistency, a single person grades each question. Everyone is required to take all exams. The midterms will cover the material preceding the exam date and are minimally cumulative, whereas the final exam will be cumulative. Note the dates of the exams and don't plan to be gone on these days (see *Important Notes About Exams* at the top of this syllabus).

The exam portion of your grade will be calculated 2 ways and we will automatically use whatever way gives you the highest total. See the *Evaluation Table* below for the exact breakdown.

#### Exam regrade policy:

To be fair to all students, it is essential that all exams be graded according to the same criteria. If you wish to submit a midterm for a regrade, you must use the following guidelines: 1) Refer to the exam key available on canvas to compare your answer to the key. 2) If you still wish to have a midterm exam answer regraded, you must submit to your instructor a written statement within one week of the return of the exam. 3) You must submit also your original exam, explaining specifically why your answer merits a higher score on a separate sheet of paper. Keep in mind that we will regrade the entire exam and a regrade may result in a higher, lower, or unchanged score.

# **Practice resources**

#### Practice Review Quizzes

Each week you will have access to practice review quizzes that draw questions from the same question bank as the graded review quiz. You can take these quizzes multiple times if you like. We strongly recommend that you make use of these quizzes to review your recall of class content and to ensure that you do well on the graded quizzes.

#### **Practice Problem Sets**

Your course packet includes practice problem sets for each week of the term. It is very important that you work on these during each week. We will help you to understand how to solve these problems in the office hours and tutor hours. The practice problems are very similar to the types of questions you will see on the exams (in fact, many of the problems are from past exams). The practice problems are designed to help you master the material needed to do well on the exams.

#### Reading resource

This class uses the Free online Open**stax** Biology 2e text. Links to the readings relevant to each week's content can be found in the review materials on Canvas. Readings include background material useful to prepare you for lecture and to study for exams. We don't expect you to memorize all details in this material. A good strategy is to skim over the entire chapter first, concentrating on the major concepts, then to read more carefully the assigned pages, focusing on the ideas discussed in lecture and lab.

# **Grade Distributions**

**Posting of Grades** Scores for assignments and exams will be posted on Canvas. Plan to regularly check your grades and notify us right away of any errors and/or omissions. Note: the final grade calculated by Canvas may not give an accurate reflection of your grade and the evaluation table (including alternative exam weighting scheme) above should be used for more accurate grade calculation.

*Grading Policies* This class uses the standard grading distributions: A+/A/A- 90-100%; B+/B/B- 80-89.9%; C+/C/C- 70-79.9%; D+/D/D- 60-69.9%; F <60%.

For the "Pass/No Pass" grading option, one must earn a 70% or above to earn a "Pass" grade. Exams and individual assignments are not graded on a curve, but we might adjust the grade cutoffs when calculating final grades. These adjustments will never result in a lower grade than the standard distribution above, but it might result in a higher grade. For example, a 79% might end up resulting in a B- grade.

# Evaluation Table See next page

# **Evaluation Table**

| Component   |                                       | Typically due   | Percent | Points<br>(1000<br>total) |
|---|---------------------------------------|---|---------|---------------------------|
| Lab activities (due in  | lab or following lab)                 | In lab  | 15%     | 150                       |
| Beginning of week vi  | deos (with embedded questions)        | 9am (mostly Mondays)  | 5%      | 50                        |
| In class work (clicker  | s, problems, graded worksheets, etc.) | In class  | 5%      | 50                        |
| Big Picture assignments (on canvas usually due Fridays at midnight)           |                                       | 11:59pm (Fridays)   | 5%      | 50                        |
| Group problem sets (in course packet and provided in lab, usually due in lab) |                                       | In lab  | 10%     | 100                       |
| Canvas Review Quizzes (weekly, cumulative)                                    |                                       | 11:59pm (mostly Saturdays)  | 20%     | 200                       |
| Exams Option 1 Two Midterm Exams (100 pts each, 20% total)                    |                                       | See below   | 400/    | 200                       |
| Final Exam (cumulative, 20%)  |                                       | See below   | 40%     | 200                       |
| Exams Option 2 One Midterm Exam with highest score MON, Oct 11:00m, P         |                                       | MON, Oct 16 <sup>th</sup> & Nov 13 <sup>th</sup> ,<br>11:00m, PLC 180 | 409/    | 150                       |
| Final Exam (cumulative)   |                                       | MON, Dec 4 <sup>th</sup> @ 5:00pm,<br>Location TBD                    | 40%     | 250                       |

# **Absences/Late Work Policy**

# ABSENCES POLICY

#### (1) Lecture Attendance/Clicker

You can miss 1.67 weeks of lecture (equates to 5 lecture periods) without impacting your grade. You are responsible for registering your clicker before the start of the term, remembering to bring your clicker to every class (including the first one), and keeping it in good working order (perhaps keep batteries on hand). Pieces of paper with clicker answers will NOT be accepted for attendance.

#### (2) Lab Attendance

If you miss lab, you need to notify the Bi211 teaching team either prior to lab (if the absence is planned) or within 24 hours of your missed lab. Email your instructor (mjud@uoregon.edu; nbarber@uoregon.edu) AND your GE in the same email thread (see <u>STAFF/HELP HOURS</u> page on Canvas for all email addresses). Dr. Molly Jud is in charge of all labs for both lab sections, so please make sure she is always included on lab-related emails. In cases of an absence, submitting the normal in-person lab will not be accepted, so you will need to reach out to your teaching team to inquire about the make-up lab and due date for the make-up. There is a limit of 2 make-ups that you will be allowed for the term. Lab make-up work is intended for students who are sick or required to quarantine, and should not be considered as a suitable alternative to lab for avoidable absences.

You should also email your group mates (in a separate email thread) to keep in contact about labs and graded group problems sets. Even if you are home sick, you will still be expected to contribute to the graded group problem sets that are due each week.

# (3) Exams

Regardless of reason, there will be NO exams given early NOR any make-up exams. However, there is flexibility built into our grading scheme (see Exam options in the *Evaluation Table* above). At the end of the term, we will use the options outlined in the *Evaluation Table* above to determine which option gives you the higher grade and use it to calculate your final grade (this will not be reflected in the Canvas Grade Book as Canvas cannot perform these types of calculations). Notice that it allows you to miss one midterm, although I STRONGLY recommend you avoid missing any exams. Acceptable reasons to miss one midterm are sickness, quarantine, or an unforeseen

emergency. Please further note that the final exam is mandatory and cannot be missed for any reason (see *Important Notes About Exams* at the top of this syllabus).

AEC students: make sure you have taken care of your AEC accommodations as early in the term as possible. <u>ALL</u> your exams will need to be scheduled through the AEC.

# LATE ASSIGNMENTS POLICY

You may use the late policy *up to 2 times* during the term *for each assignment category* below. After that, any work not turned in on time will receive a zero regardless of reason. *Late work must be completed and turned in within a week from the original due date and time*.

| <ul><li>(1) LATE LABS:</li><li>(this does not include absences; see Absences Policy above)</li></ul> | 20% off each late lab<br>(highest possible grade = 12/15 or 16/20)  |
|--|---|
| (2) LATE REVIEW QUIZZES  | 20% off each late review quiz<br>(highest possible grade = 16/20)   |
| (3) LATE BIG PICTURE<br>ASSIGNMENTS  | 20% off each late big picture<br>(highest possible grade = 8/10)  |
| (4) LATE GROUP PROBLEM SETS  | 20% off each late group problem set<br>(highest possible grade = 12/15)   |
| (5) MANDATORY VIDEOS   | NO LATE POLICY<br>These MUST be done on time as they are important to prepare for<br>lectures. If you do not watch a video and answer the embedded questions<br>on time, you will receive a zero on that video. |

# BI 211 Fall 2023 Calendar

# Week 1: Biological macro-molecules

# Lab 1: Discovering Molecules

|             | Monday 9-25 | Wednesday 9-27  | Friday 9-29               |
|-------------|-------------|---|---------------------------|
| Торіс       | No Class    | Carbohydrates   | Lipids & Proteins         |
| Assignments |             | Due 9:00am Video:<br><u>Macromolecules</u><br>Due in lab: Lab 1, submit card<br>sorting picture <u>HERE</u> | Due 11:59pm Big Picture 1 |

# Week 2: Cell Structure, function, and transport

# Lab 2: Discovering Cells

|             | Monday 10-2                                  | Wednesday 10-4  | Friday 10-6   |
|-------------|--|---|---|
| Торіс       | Nucleic acids                                | Cell Structure, Function &<br>Transport   | Cell Structure, Function &<br>Transport   |
| Assignments | Due TUES 10-3-23 at 11:59pm<br>Review Quiz 1 | Due 9:00am Video: <u>Cell Structure</u><br>Function<br>Due in lab: Group Problem Set 1 &<br>Lab 2 | Due 11:59pm <u>Big Picture 2</u><br>Due SAT 10-7-23 at 11:59pm<br>Review Quiz 2 |

|             | Monday 10-9   | Wednesday 10-11                | Friday 10-13   |
|-------------|---|--------------------------------|--|
| Торіс       | Harvesting Chemical Energy I                                | Harvesting Chemical Energy II  | Harvesting Chemical Energy III   |
| Assignments | Due 9:00am Video: <u>Energy Enzymes</u><br><u>&amp; ATP</u> | Due in lab Group Problem Set 2 | Due 11:59pm <u>Big Picture 3</u><br>Due SAT 10-14-23 at 11:59pm<br>Review Quiz 3 |

# Week 4: Energy Harvest in Animals and Plants

# Lab 4: Modeling Photosynthesis

|             | Monday 10-16  | Wednesday 10-18                           | Friday 10-20                                 |
|-------------|---|---|--|
| Торіс       | Energy Harvest in Plants                                      | Energy Harvest Plants and<br>Animals      | Energy Harvest Plants and<br>Animals         |
|             | <u>EXAM 1:</u> DURING LECTURE<br>PERIOD (PLC 180, 11-11:50am) | Due 9:00am Video: <u>Photosynthesis</u>   | Due 11:59pm Big Picture 4                    |
| Assignments | EXAM 1 Key (will be available<br>Friday 10-27-23)             | Due in lab Group Problem Set 3 &<br>Lab 3 | Due SAT 10-21-23 at 11:59pm<br>Review Quiz 4 |

# Week 5: DNA, Cell Cycle, and Mitosis

# Lab 5: DNA, DNA Replication, and Midterm Review

|             | Monday 10-23                                    | Wednesday 10-25                   | Friday 10-27  |
|-------------|---|-----------------------------------|---|
| Торіс       | DNA & Replication                               | Ploidy, Cell Cycle & Mitosis      | Ploidy, Cell Cycle & Mitosis  |
| Assignments | Due 9:00am Video: <u>Intro DNA</u><br>structure | Due in lab: Problem set 4 & Lab 4 | Due 11:59pm <u>Big Picture 5</u><br>Due 11:59pm Optional: <u>Extra Credit</u><br><u>Survey</u> !<br>Due SAT 10-28-23 at 11:59pm<br><u>Review Quiz 5</u> |

Week 6: Protein Synthesis

Lab 6: Intro to Drosophila, Cell Cycle in Garlic Root Tip

|             | Monday 10-30   | Wednesday 11-1   | Friday 11-3  |
|-------------|--|--|--|
| Торіс       | Transcription & RNA Processing                               | RNA Processing & Gene<br>Architecture  | Translation  |
| Assignments | Due 9:00am Video: <u>Intro &amp;</u><br><u>Transcription</u> | Due in lab: Group Problem set<br>5 & Labs 5 (start of lab) and 6<br>(end of lab) | Due 11:59pm <u>Big Picture 6</u><br>Due SAT 11-4-23 at 11:59pm <u>Review</u><br>Quiz 6 |

| Week 7: Mutation | , Genetic Variation | , and Meiosis |
|------------------|---------------------|---------------|
|------------------|---------------------|---------------|

# Lab 7: Protein Synthesis

| Monday 11-6 Wednesday 11-8 Friday 11-10 |
|---|
|---|

| Торіс       | Finish Protein synthesis, start<br>Genetic Variation | Meiosis and Genetic Variation              | Veterans Day, No class   |
|-------------|--|--|--|
| Assignments | Due 9:00am Video: <u>Mutation</u>                    | Due in lab: Group Problem set 6 &<br>Lab 7 | Due 11:59pm <u>Big Picture 7</u><br>Due SAT 11-11-23 at 11:59pm<br>Review Quiz 7 |

Week 8: Mendelian Genetics

# Lab 8: Meiosis and Drosophila melanogaster

|             | Monday 11-13  | Wednesday 11-15   | Friday 11-17              |
|-------------|---|---|---------------------------|
| Торіс       | Intro to Mendel and Monohybrid<br>Crosses   | Sex Linkage & Pedigrees   | Dihybrid Crosses          |
| Assignments | <u>EXAM 2: DURING LECTURE</u><br>PERIOD (PLC 180, 11-11:50am)<br>Exam 2 Key (will be available TBD) | Due 9:00am Video: Intro to Mendel<br>Due in lab: Group Problem set 7<br>Lab 8 Whole Class Fly Data =<br>HERE! | Due 11:59pm Big Picture 8 |

# Week 9: Genetic Linkage and Recombination Mapping Lab: No lab this week

|             | Monday 11-20   | Wednesday 11-22  | Friday 11-24              |
|-------------|--|--|---------------------------|
| Торіс       | Finish Mendelian Genetics  | Linked Genes & Recombination<br>Mapping                          | Thanksgiving, No class    |
|             | Due TUES 11-21-23<br>11:59pm <u>Review Quiz 8</u>                    | Due 9:00am Video: Linked Genes<br>and Recombination Mapping      |                           |
| Assignments | <u>NO LABS</u> , but we do have lecture on<br>Mon and Wed this week! | Due beginning of <u>lecture</u> : Group<br>Problem set 8 & Lab 8 | Due 11:59pm Big Picture 9 |

Week 10: Human Genetics

# Lab 9: Modeling Simple Genetic Traits

|             | Monday 11-27  | Wednesday 11-29  | Friday 12-1  |
|-------------|---|--|--|
| Торіс       | Recombination Mapping II, Human<br>Genetics   | Human Genetics II  | Wrap up  |
| Assignments | Due 9:00am Video: <u>Beyond Mendel</u><br>Due TUES 11-28-23 at 11:59pm<br>Review Quiz 9 | Due in lab: Group Problem set 9 &<br>Lab 9 (at end of lab), submit card<br>sorting picture <u>HERE</u> | Due 11:59pm Big Picture 10Due SAT 12-2-23 at 11:59pmReview Quiz 10Due MON 12-4-23 BEFORE FinalExam: Group Problem set 10Due TUES 12-5-23 at 11:59pm:Optional: Extra Credit Survey! |

# **OTHER CAMPUS RESOURCES**

Campus resources to support your learning

*Tutoring and Academic Engagement Center (<u>https://engage.uoregon.edu/services/</u>) Drop-in math and writing support in addition to tutoring, study skills support, and Class Encore. Located in the 4<sup>th</sup> Floor Knight Library (541) 346-3226, <u>engage@uoregon.edu</u>.* 

*Counseling Center* Call anytime to speak with a therapist who can provide support and connect you with resources. Located on the 2<sup>nd</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<sup>st</sup> Floor of Oregon Hall (541) 346-1155, 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 1<sup>st</sup> 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: <u>https://parking.uoregon.edu/content/access-shuttle</u>.

# **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. 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.

# 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 <u>safe.uoregon.edu</u>. 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 <u>respect.uoregon.edu</u> or <u>aaeo.uoregon.edu</u> 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 <u>Discrimination</u> <u>& Harassment</u>.

# 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 <u>titleix.uoregon.edu</u>.

#### 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: <u>Mandatory Reporting of Child Abuse and Neglect</u>.

# Safe Ride 541-346-7433 ext 2 pages.uoregon.edu/saferide

Safe Ride is an **assault prevention shuttle** that works to provide free, inclusive, and accessible alternatives to traveling alone at night for **UO students, faculty, and staff**.

We are a schedule-ahead service and riders can (1) call once we open to schedule a ride with a dispatcher or (2) leave a voicemail on the day of their ride request. We do not call riders ahead of time to confirm due to capacity constraints, but riders are always welcome to call us to double-check that their ride was scheduled. We are a feminist, 'for-the-students/by-the-students 'organization and operate out of the Women's Center in EMU 12F.

Operating hours:Sunday - Thursday | 7p - midnightSpring termSunday - Thursday | 7p - 2aFriday + Saturday | 7p - 2aSunday - Thursday | 9p - midnightFriday + Saturday | 9p - 2aSunday - Thursday | 6p - 2aFall/Winter termSunday - Thursday | 6p - midnightFriday + Saturday | 6p - 2a

Policy and rules:

1. We are a **schedule-ahead service**, we **do not call ahead**, and we can only wait for riders for 5 minutes at their pick-up time and location.

- 2. We only give rides to groups of **3 or fewer** to prioritize groups that are at higher risk.
- 3. We are a **free service** and do not accept tips.

# Academic Disruption

# Academic Disruption due to Campus Emergency

"In the event of a campus emergency that disrupts academic activities, course requirements, deadlines, and grading percentages are subject to change. Information about changes in this course will be communicated as soon as possible by email, and on Canvas. If we are not able to meet face-to-face, students should immediately log onto Canvas and read any announcements and/or access alternative assignments. Students are also expected to continue coursework as outlined in this syllabus or other instructions on Canvas. In the event that the instructor of this course has to guarantine, this course may be taught online during that time."

# **COVID Containment Plan for Classes**

As the University of Oregon returns to in-person instruction, the key to keeping our community healthy and safe involves **prevention**, **containment**, and **support**. If you have tested positive for Covid, please quarantine at home. If you have been exposed to a known case of Covid, please consider wearing a mask to class and lab.

- Support: The following resources are available to you as a student.
  - University Health Services or call (541) 346-2770
  - University Counseling Center or call (541) 346-3277 or (541) 346-3227 (after hrs.)
  - Academic Advising or call (541) 346-3211
  - <u>Dean of Students</u> or call (541)-346-3216

#### Good Classroom Citizenship

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- Wear your **mask** and make sure it fits you well
- Stay home if you're sick
- Get to know your neighbors in class, and let them know if you test positive
- Get tested regularly
- Watch for signs and symptoms with the daily symptom self-check
- Wash your hands frequently or use hand sanitizer

## Accessible Education - (see https://aec.uoregon.edu/best-practices-faculty for more information)

"The University of Oregon is working to create inclusive learning environments. Please notify me if there are aspects of the instruction or design of this course that result in disability-related barriers to your participation. You are also encouraged to contact the Accessible Education Center in 360 Oregon Hall at 541-346-1155 or <u>uoaec@uoregon.edu</u>."

OR something like the following:

"Please let me know within the first two weeks of the term if you need assistance to fully participate in the course. Participation includes access to lectures, web-based information, in-class activities, and exams. The Accessible Education Center (<u>http://aec.uoregon.edu/</u>) works with students to provide an instructor notification letter that outlines accommodations and adjustments to class design that will enable better access. Contact the Accessible Education Center for assistance with access or disability-related questions or concerns."

# Academic integrity

All students will be expected to adhere to the University's guidelines on academic integrity as outlined in the Student Conduct Code: <u>https://policies.uoregon.edu/vol-3-administration-student-affairs/ch-1-</u> <u>conduct/student-conduct-code</u>. 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.

# **Academic Misconduct -** You can find faculty resources on academic misconduct here: <u>https://dos.uoregon.edu/faculty-resources</u>

#### Academic Dishonesty:

Academic dishonesty includes various forms of "cheating" and will not be tolerated. Academic dishonesty includes but is not limited to:

- 1. Copying another person's answers to exam and quiz questions.
- 2. Utilizing materials otherwise not allowed on exam (e.g. textbooks, more than the allocated pages of notes, internet access, etc.).
- 3. Having someone else take your exams.
- 4. Altering an exam for a regrade.
- 5. Copying problem set answers from others.
- 6. Obtaining/distributing previous exams <u>if</u> those exams are not made available by the instructor to everyone in the class.
- 7. Submitting clicker questions for other students.
- 8. Misrepresenting circumstances leading to missed classes, exams, or quizzes.

Suspected cheating will earn a zero on the assignment. All such activities will be reported to the Dean of Students office and will result in a failing grade in the class if academic dishonesty is confirmed.

"The University Student Conduct Code (available at <u>conduct.uoregon.edu</u>) defines academic misconduct. Students are prohibited from committing or attempting to commit any act that constitutes academic misconduct. By way of example, students should not give or receive (or attempt to give or receive) unauthorized help on assignments or examinations without express permission from the instructor. Students should properly acknowledge and document all sources of information (e.g. quotations, paraphrases, ideas) and use only the sources and resources authorized by the instructor. If there is any question about whether an act constitutes academic misconduct, it is the students ' obligation to clarify the question with the instructor before committing or attempting to commit the act. Additional information about a common form of academic misconduct, plagiarism, is available at <u>https://researchguides.uoregon.edu/citing-plagiarism</u>."

#### Inclement Weather

"It is generally expected that class will meet unless the University is officially closed for inclement weather. If it becomes necessary to cancel class while the University remains open, this will be announced on Canvas and by email. Updates on inclement weather and closure are also communicated in other ways described here: <u>https://hr.uoregon.edu/about-hr/campus-notifications/inclement-weather/inclement-weather-immediate-updates</u>"

## **Reporting Obligations**

The following is the recommended minimum language to include on syllabi:

"I am a [designated reporter/student-directed employee]. For information about my reporting obligations as an employee, please see <u>Employee Reporting Obligations</u> on the Office of Investigations and Civil Rights Compliance (OICRC) website. Students experiencing any form of prohibited discrimination or harassment, including sex or gender-based violence, may seek information and resources at <u>safe.uoregon.edu</u>, <u>respect.uoregon.edu</u>, or <u>investigations.uoregon.edu</u> or contact the non-confidential Title IX office/Office of Civil Rights Compliance (541-346-3123), or Dean of Students offices (541-346-3216), or call the 24-7 hotline 541-346-SAFE for help. I am also a mandatory reporter of child abuse. Please find more information at <u>Mandatory Reporting of Child Abuse and Neglect</u>."

See <u>https://investigations.uoregon.edu/suggested-syllabus-language</u> for additional recommended syllabus language.

#### Mental Health and Wellness

"Life at college can be very complicated. Students often feel overwhelmed or stressed, experience anxiety or depression, struggle with relationships, or just need help navigating challenges in their life. If you're facing such challenges, you don't need to handle them on your own--there's help and support on campus.

As your instructor if I believe you may need additional support, I will express my concerns, the reasons for them, and refer you to resources that might be helpful. It is not my intention to know the details of what might be bothering you, but simply to let you know I care and that help is available. Getting help is a courageous thing to do—for yourself and those you care about.

University Health Services help students cope with difficult emotions and life stressors. If you need general resources on coping with stress or want to talk with another student who has been in the same place as you, visit the Duck Nest (located in the EMU on the ground floor) and get help from one of the specially trained Peer Wellness Advocates. Find out more at health.uoregon.edu/ducknest.

University Counseling Services (UCS) has a team of dedicated staff members to support you with your concerns, many of whom can provide identity-based support. All clinical services are free and confidential. Find out more at counseling.uoregon.edu or by calling 541-346-3227 (anytime UCS is closed, the After-Hours Support and Crisis Line is available by calling this same number)."

#### **Basic Needs**

Any student who has difficulty affording groceries or accessing sufficient food to eat every day, or who lacks a safe and stable place to live and believes this may affect their performance in the course is urged to contact the Dean of Students Office (346-3216, 164 Oregon Hall) for support.

This UO webpage includes resources for food, housing, healthcare, childcare, transportation, technology, finances, and legal support: <u>https://blogs.uoregon.edu/basicneeds/food/</u>

#### Accommodation for Religious Observances

The university makes reasonable accommodations, upon request, for students who are unable to attend a class for religious obligations or observance reasons, in accordance with the university discrimination policy which says "Any student who, because of religious beliefs, is unable to attend classes on a particular day shall be excused from attendance requirements and from any examination or other assignment on that day. The student shall make up the examination or other assignment missed because of the absence." To request accommodations for this course for religious observance, visit the Office of the Registrar's website (<u>https://registrar.uoregon.edu/calendars/religious-observances</u>) and complete and submit to the instructor the "Student Religious Accommodation Request" form prior to the end of the second week of the term.