INSTRUCTIONAL TEAM AND COURSE DETAILS

IN-CLASS TIME: T/TH 2-3:20PM    RECITATION: 1 HR/WEEK (SEE INDIVIDUAL SCHEDULES)
CREDIT HOURS: 4

INSTRUCTOR: Dr. Johanna “Caity” Smyth (Botany and Plant Pathology)    E-MAIL: smythj@oregonstate.edu.

COMMUNICATION: For personal matters please email me via Canvas and I will reply to set up a meeting or address your concern. I try to respond emails within 48 hours except weekends and holidays.

GTA: Grace Galles, gallesg@oregonstate.edu
GTA: Jun Yang, yangjun@oregonstate.edu

COURSE DESCRIPTION

This course explores the fundamental concepts of prokaryotic and eukaryotic cell biology and emphasizes cell structure and function at the molecular level.

PRE-REqs: BI 221 or BI 221H, BI 222 or BI 212H, BI 223 or BI 223H, CH 231 or CH 231H, CH 232 or CH 232H, CH 233 or CH 233H, CH 261 or CH 261H, CH 262 or CH 262H, and CH 263 or CH 263 H

WHY STUDY CELL BIOLOGY

Cell and Molecular Biology explores how organisms function at the cellular and molecular level. Why do we care about knowing how organisms work at this level? Cells are considered the building blocks to life. It is the simplest unit that we can consider alive. Some simple organisms are composed of just a single cell, while others, like us, are made of lots of cells working together. In reality, no cell, no organism period. So, if we want to understand living things, it makes sense to understand the universal common unit of life, the cell.

MY CLASSROOM PHILOSOPHY

My goal for this that everyone in the learning community feels welcomed, supported, and intellectually challenged as we engage in cell and molecular biology content. We will be active in the classroom and engage with each other to learn. If at any point you feel that the classroom environment makes you uncomfortable, please reach out to me or to a TA so that we can ensure that everyone feels that they have a place at the table.

I strive for an inclusive classroom in which everyone is open to the views of others so that we all feel comfortable to work and learn together. Each and every voice in the classroom is important and carries its own experiences, values and beliefs. Please be mindful of your fellow students, respect their opinions even when they do not match your own, honor the uniqueness of your classmates and refrain from personal attacks or demeaning comments of any kind.

The university also has guidelines specified for student conduct in the classroom. From the university policy explained in Office of Student Conduct: Information and Regulations.
Students are expected to conduct themselves in the course (e.g., in class, on discussion boards, email) in compliance with the university’s regulations regarding civility. Civility is an essential ingredient for academic discourse. All communications for this course should be conducted constructively, civilly, and respectfully. Differences in beliefs, opinions, and approaches are to be expected. In all you say and do for this course, be professional. Please bring any communications you believe to be in violation of this class policy to the attention of your instructor.

COURSE LEARNING GOALS

1. Correctly use scientific vocabulary to demonstrate core knowledge of the organization, mechanisms, and flow of cellular life.
2. Explain how structure dictates function with respect to cell behaviors at all levels of cell biology.
3. Integrate the concepts of cell and molecular biology to explain how genetic variation/mutation influences cell behavior and contributes to the diversity of life.
4. Integrate the concepts of cell and molecular biology to assess scientific data and propose explanations/solutions that fit the scientific data presented.
5. Interpret current primary literature in cell biology and communicate key findings
6. Participate and actively contribute to a community of learning, by working collaboratively and learning to build consensus answers.

COURSE CREDIT HOURS

This course requires approximately 12 hours/week of instruction, quizzes, recitations, and practice problems for 4 credits over 10 weeks.

COURSE FORMAT

• This course will be offered in a hyflex format, meaning it will be both in person and streamed live via Zoom. If you are attending in-person, masks will be required at all times. You will be asked to leave and log in remotely if you choose not to wear a mask. If you feel more comfortable, are sick with anything, or are asked to isolate, you can attend the live stream Zoom session for lectures. For recitations you will have to coordinate with your group and TA if you must be remote due to illness. Please contact me if you want to make special arrangements.

• This course consists of 8 units, each covering a single topic in cell biology. For each of the units, you are expected to complete a content quiz, engage in lecture, attend recitation, and work on problem sets.
  
  o **Online material is provided to the student through Canvas and Google Sites for the sole purpose of private study and research by the individual student. It may not be shared or sold for profit to any other individuals, companies, or websites by students as it is protected under copyright. This includes Chegg, Coursehero, and any other study site. I actively monitor these sites and have content removed and students may be reported for academic misconduct.**

• You should expect to engage with the course content, and to participate. The focus of BB314 is conceptual learning and development of problem-solving skills, which takes practice. Working together with your peers will greatly facilitate the learning process.

• See separate document for course topics and schedule.
COURSE MATERIALS

COURSE WEBSITE

This course will have a companion site via Canvas where you will access the learning materials, such as the syllabus, class discussions, assignments, and quizzes. Students are expected to consult the site regularly, to keep informed of any announcements and/or changes.

TEXTBOOK

The textbook (Alberts et al. Essential Cell Biology 5th edition) is required for the course. Pages for the course reading are given from the 5th edition but the 4th and 3rd editions would also be an acceptable resource. There are several versions available including ebook and hard copy which are all fine to use. There is also an additional course notes resource available.

GRADESCOPE

Your recitation assignments and exams will be turned in and graded using Gradescope. This enhances the instructor/graders’ ability to provide comments. Once assignments and exams are graded you will be able to login and have an electronic record of your exam. More information to follow.

TOPHAT

We will be using the Top Hat (www.tophat.com) classroom response system to conduct polls and answer problems in class. You will be able to submit answers to in-class questions using Apple or Android smartphones and tablets, laptops, or through text message. Join Code: 019981

EVALUATION OF STUDENT PERFORMANCE

The course grade is based upon the following for BB314

- Midterm 25%*
- Final Exam 30%*
- Class Participation 5%
- Content-Quizzes 20%
- Recitation 20%
- Optional Choice Project (10%)

Total 100%

The choice project is worth 10%. The grade you receive on this portion will replace 10% of the grade you receive on your lowest exam score. For example, if you don’t do as well on the midterm you can use the choice project to make the midterm worth 15% and use the project grade for the remaining 10%. These components are explained below in greater detail.

LETTER GRADE

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EXAMS

- The midterm is due on **Monday Feb 7th** and the final exam is due **Friday Mar 18th**. Both exams are take-home exams and you are welcome and encouraged to work with your classmates on these exams. However, all your answers must be your own and in your own words. So, talk about concepts but not direct answer wording. If you have any concerns, please reach out to me directly.

- Both the midterm and final are mandatory. The final exam will be cumulative, with an emphasis on material taught after the midterm.

- Both midterm and final exams will contain a combination of questions, including short answer, data analysis and formation of a well-supported argument. See the Learning Outcomes for each Unit for a summary of material for which you are responsible. We STRONGLY recommend using the Problem Sets to prepare.

CLASS PARTICIPATION

Credit will be given for participation in TopHat during lecture.

CONTENT QUIZZES

There are 8 Content Review Quizzes throughout the term which are open book and have unlimited time. The highest 7 scores will be counted towards your final grade. The purpose of the quiz is to help students to stay engaged with basic knowledge from the readings, lectures, and pre-requisite review knowledge. Reviewing topics learned in introductory classes is one of the most powerful ways for students to enhance their learning in this course. The topics on the quiz, as well as resources that can be used for review will be provided. **Students may take each quiz twice**, with the highest score used in computing their quiz grade. This allows students to identify the things that they did not know the first time and review the material again before a second attempt.

RECITATION

The Recitation Workshops are designed to support your learning of skills related to Cell and Molecular Biology, such as critical thinking, problem-solving and data analysis. In each workshop, you will practice these skills by working through sample problems from old exams individually, in groups, and through facilitated discussion with your TA.

There are 8 workshops in total. The lowest score will be dropped so this means you can miss **ONE** recitation without penalty (not that we recommend missing any). Beyond this, there will be no accommodations made for missing a recitation, regardless of the reason. If you are not able to attend recitation in person, communicate with your TA and group to arrange to attend via Zoom.

CHOICE ASSIGNMENT – OPTIONAL 10% OF FINAL GRADE

I recognize that students learn and communicate their knowledge in a variety of ways. This assignment gives you the opportunity to demonstrate your understanding of cell biology in an alternate way.

ADDITIONAL COURSE POLICIES

LATE WORK

Late work is accepted with a 10% penalty per day late up to 3 days late, after that it will not be accepted for credit. Exams are not accepted late.
INCOMPLETES
Incomplete (I) grades will be granted only in emergency cases (usually only for a death in the family, major illness or injury, or birth of your child), and if the student has turned in ~80% of the points possible (in other words, usually everything but one exam).

If you are having any difficulty that might prevent you completing the coursework, please don’t wait until the end of the term; let me know right away.

STATEMENT REGARDING STUDENTS WITH DISABILITIES
Accommodations are collaborative efforts between students, faculty and Disability Access Services (DAS) with accommodations approved through DAS are responsible for contacting the faculty member in charge of the course prior to or during the first week of the term to discuss accommodations. Students who believe they are eligible for accommodations but who have not yet obtained approval through DAS should contact DAS immediately at 541-737-4098.

ACADEMIC INTEGRITY
Students are expected to comply with all regulations pertaining to academic honesty. For further information, visit Avoiding Academic Dishonesty, or contact the office of Student Conduct and Mediation at 541-737-3656.

OAR 576-015-0020 (2) Academic or Scholarly Dishonesty:

a) Academic or Scholarly Dishonesty is defined as an act of deception in which a Student seeks to claim credit for the work or effort of another person, or uses unauthorized materials or fabricated information in any academic work or research, either through the Student’s own efforts or the efforts of another.

b) It includes:

(i) CHEATING - use or attempted use of unauthorized materials, information or study aids, or an act of deceit by which a Student attempts to misrepresent mastery of academic effort or information. This includes but is not limited to unauthorized copying or collaboration on a test or assignment, using prohibited materials and texts, any misuse of an electronic device, or using any deceptive means to gain academic credit.

(ii) FABRICATION - falsification or invention of any information including but not limited to falsifying research, inventing or exaggerating data, or listing incorrect or fictitious references.

(iii) ASSISTING - helping another commit an act of academic dishonesty. This includes but is not limited to paying or bribing someone to acquire a test or assignment, changing someone’s grades or academic records, taking a test/doing an assignment for someone else by any means, including misuse of an electronic device. It is a violation of Oregon state law to create and offer to sell part or all of an educational assignment to another person (ORS 165.114).

(iv) TAMPERING - altering or interfering with evaluation instruments or documents.

(v) PLAGIARISM - representing the words or ideas of another person or presenting someone else’s words, ideas, artistry or data as one’s own, or using one’s own previously submitted work. Plagiarism includes but is not limited to copying another person’s work (including unpublished material) without appropriate referencing, presenting someone else’s opinions and theories as one’s own, or working jointly on a project and then submitting it as one’s own.
c) Academic Dishonesty cases are handled initially by the academic units, following the process outlined in the University’s Academic Dishonesty Report Form, and will also be referred to SCCS for action under these rules.

REACH OUT FOR SUCCESS

University students encounter setbacks from time to time. If you encounter difficulties and need assistance, it’s important to reach out. Consider discussing the situation with an instructor or academic advisor. Learn about resources that assist with wellness and academic success at oregonstate.edu/ReachOut. If you are in immediate crisis, please contact the Crisis Text Line by texting OREGON to 741-741 or call the National Suicide Prevention Lifeline at 1-800-273-TALK (8255).

STUDENT EVALUATION OF COURSES

The online Student Evaluation of Teaching system opens to students the Wednesday of week 8 and closes the Sunday before Finals Week. Students will receive notification, instructions and the link through their ONID. They may also log into the system via Online Services. Course evaluation results are extremely important and used to help improve courses and the learning experience of future students. Responses are anonymous (unless a student chooses to “sign” their comments agreeing to relinquish anonymity) and unavailable to instructors until after grades have been posted. The results of scaled questions and signed comments go to both the instructor and their unit head/supervisor. Anonymous (unsigned) comments go to the instructor only.