

Bi322 Cell biology**Spring 2011***(updated 2-24-11)*

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Office hours: Monday 3-4 pm, 218 Streisinger Hall

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Office hours: Wednesday 1-2pm, and Thursday 10-11am

Lecture time and room
Tue and Thur 12:00-1:20
Chiles 128

Discussion time and room
Monday 10am, 11am, 1pm, 2pm
Klamath 33

Course Prerequisites

Bi214 or Bi252 or equivalent are required. Comparable courses may substitute for these (please ask me). Exceptions to the prereqs will be made in some cases.

Course topics and goals

This course covers eukaryotic cell biology, widely useful for students interested in going to Med School, Pharmacy School, Dental School, and graduate school in biochemistry, signal transduction, cell and developmental biology, cancer biology, and many other areas. Because cells are the building block of life, the information in this course is widely relevant.

You will learn the components of a eukaryotic cell and how they are inter-related; methods cell biologists use to study cells (including light microscopy, laser scanning confocal microscopy, electron microscopy, biochemistry, DNA microarrays, transgenics, and other cutting edge techniques); and a glimpse of the role of cells in development and cancer. We will not cover plant cells or prokaryotic cells.

The goals of this course are to give you (1) a basic knowledge about the fundamental concepts of cell biology; (2) a working cell biology vocabulary; (3) an understanding of the methods used by cell biologists; and (4) practice thinking analytically and synthesizing information, so that you will be better equipped to read and critically analyze primary scientific literature or media reports on cell biology topics (e.g. stem cell research).

Course textbook

Required readings are mostly from the sixth edition of Molecular Cell Biology. This book will be at the bookstore for purchase, and two copies have been placed on reserve in the Science Library. Additional required reading will also be posted on Blackboard for free downloads. Required reading is to help you understand the lectures, and help you do well on the quizzes.

Course website

The course web site will be on Blackboard and all students should have access. The site will contain class postings, changes in the reading, links to cell biology movies and other resources that you will need to do well on the exams, and copies of important class materials. Please contact me immediately if you do not have the resources or knowledge to access this website.

Lectures. Time and place listed above. I will post PDFs of the lecture slides prior to class, and you should print them prior to class and use them to take note on. I will also post audio podcasts of the lecture (<http://biobkup.uoregon.edu/groups/cdoe/blog/>). In this way you should be able to focus on understanding the material as I lecture, review the material on your own if necessary. Please do not use laptops in the classroom as they are distracting to other students.

Discussion sections. Most sections will start with a short quiz on the readings or will be a review session for the midterm or final exams. Most discussion sections will emphasize methodology relevant to the class, including light, electron and confocal microscopy, antibody production and uses, DNA microarrays, etc. One or a few “field trips” are planned for you to visit the electron microscopy facility, the monoclonal antibody facility, and the genomic microarray robotics facility, etc. The actual field trip will be finalized with the consent and the escort of the facility directors.

Quizzes. These will be given at the beginning of most discussion sections and will be based on the material in required reading. The quizzes are designed to make sure you do the reading, and are not meant to be representative of the exams. You should not assume that if get 100% on each quiz that you will get 100% on the exam, as the quizzes are much simpler – on the other hand, if you flunk the quizzes you need to immediately seek assistance before the midterms.

Exams. There will be two midterm exams and one final exam. The exams will cover material from both lectures and readings, but with an emphasis on the lectures. **EVERYONE IS REQUIRED TO TAKE THE FINAL EXAM. BE CAREFUL WHEN MAKING TRAVEL PLANS AS THERE WILL BE NO EARLY OR MAKE-UP FINAL EXAMS.**

Grading

Your grade will be based on the point distribution below. I do not grade on a fixed curve.

Quizzes:	10%
Participation:	5% (in Class and Discussion section)
Midterm 1:	25%
Midterm 2:	25%
Final exam:	35%

Students with disabilities: 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 barriers to your participation. You may also contact Disability Services at 346-1155 or disabsrv@uoregon.edu

Academic integrity: All students will be expected to adhere to the University’s guidelines on academic integrity as outlined in the Student Conduct Code: <http://studentlife.uoregon.edu/StudentConductandCommunityStandards/StudentConductCode/tabid/69/Default.aspx> Academic dishonesty includes cheating, plagiarizing or knowingly supplying false information. If you are aware of academic dishonesty occurring, please see me.