

Bi214
General Biology IV: Biochemistry and Genetics

This course will expand upon the introductory material that was presented in Bi211, as many upper division subjects require a good working knowledge of genetics (transmission and molecular) and biochemistry. Indeed, biochemistry or genetics is a foundation for a wide range of fields in the life sciences, such as microbiology, immunology, physiology, evolutionary biology, and conservation biology. Through a combination of lectures, problem solving, and laboratory exercises we will explore amino acid chemistry, the structures and functions of proteins, basic metabolism and energy conservation, the genetics of biochemical pathways, assortment and linkage of genes, the structure and replication of DNA, and the structure and regulation of genes.

Staff

Instructor

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Current office hours can be found on the “Staff” page of the website.

Text and course packets

The required text is *Essential Biochemistry* (by Pratt and Cornely). The general text used in Bi211-213, *Biology* (Campbell and Reece, 7th ed.), will be helpful, but is not required. If you have *Biology* in your possession you should keep it for this term; however, I don’t recommend that you purchase the book solely for this course.

The publisher for *Essential Biochemistry* (Wiley) offers an on-line version at a substantial savings (approximately 40%). To purchase the on-line text go to

<http://he-cda.wiley.com/WileyCDA/HigherEdTitle/productCd-0471393878.html>

In the “Students” box click on “buy the e-book.”

Students who have purchased either the e-book or the hardbound text will have access to all of the on-line amenities at the “Student Companion” site at

<http://bcs.wiley.com/he-bcs/Books?action=index&itemId=0471393878&bcsId=1728>

A laboratory manual and a course packet that includes lecture figures and problem sets are required. The text, lab manual, and course packet can be purchased at the UO Bookstore. If a manual or packet is not available, request one at the Bookstore and they will have it for you within 24 hours. Note that it is your responsibility to order these; we will not have copies available in class or lab. Texts will be placed on 2-hour reserve in the Science Library.

Grading

The course grade will be determined based upon the following distribution:

Lecture	60%
Exam 1	12%
Exam 2	12%
Exam 3	12%
Exam 4	12%
Quizzes	12%
Lab	40%

Exams are not cumulative, except where material must build upon earlier concepts. Lecture quizzes will be administered each Friday except for weeks during which an exam is scheduled. They will be based upon the reading or relevant problems of the problem set for that week. The lowest quiz score will be dropped.

No other opportunities for points will be offered. Early or makeup quizzes will not be offered. If you miss an exam you will receive no credit unless you can provide written proof of a medical or family emergency. If the excuse is accepted you may receive an average score for the missed exam based upon the remaining exam scores. Additional missed exams will not be excused. In some circumstances an exam may be offered at an earlier or later time; this must be arranged with the instructor at the beginning of the term.

Four problem sets have been provided in the course packet, but these will not be turned in for grading. However, working the problems will be your best form of preparation for the exams, so you are encouraged to make a sincere effort in solving them. Problem set answers are posted on the web site.

Laboratories

Laboratories begin during the second week. We will do a total of 8 laboratory exercises. The exercises, background information, and report pages are contained within the lab manual. You must read the material BEFORE coming to your lab. Details of the lab format, assignments, and grading are included in the manual.

You may not change lab sections after the first lab, though changes may be accommodated during the first week. If you miss your assigned section you will receive no credit for that lab.

Course web site

The course web site address is <http://biology.uoregon.edu/classes/bi214f08/>. Note that this is not a Blackboard web site, but will be accessible through Blackboard. It contains the course information, lecture and lab schedules, staff contact information, exam keys, announcements, problems set keys, links to relevant websites, and grade access. Check it regularly, as this is the best way we can notify you of schedule changes and updates.

Accommodations for students with disabilities

If you have a documented disability and anticipate needing accommodations in this course, please make arrangements to meet with the instructor as soon as soon as possible and not later than October 5. Please bring a notification letter from Disability Services outlining your approved accommodations.

Class conduct and academic honesty

Class starts promptly at 9:00 and ends at 9:50. Please arrive on time and do not pack up before the conclusion of the lecture. Arriving late and leaving early is disruptive to others around you and to the speaker. Do not talk during lecture in a volume audible to anyone but the intended recipient.

Ringling cell phones have become a nuisance in the classroom over the past few years, and will not be tolerated in this course. You will be asked to leave the classroom if you are responsible for frequent disruptions.

All work submitted in this course must be your own. Instances of suspected cheating or plagiarism on exams, quizzes, and reports will be referred to the Office of Student Judicial Affairs for consideration of sanction. For definitions of violations, a description of the hearing process, and a summary of penalties for findings of academic dishonesty, go to

http://studentlife.uoregon.edu/programs/student_judi_affairs/conduct-code.htm