

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

Dr. Alan Kelly
kelly@molbio.uoregon.edu
Phone: 346-6118
Office: 488 Onyx Bridge (25 Klamath for office hours)

Lab Coordinator

Holly Lynn
hollylyn@uoregon.edu
Phone: 346-4651
Office: 120C Huestus

Graduate Teaching Fellows

Sasha Feoktistov
feoktist@uoregon.edu

Braedan McCluskey
braedanm@uoregon.edu

Jessica Preston
jpreston@molbio.uoregon.edu

Biology Peer Tutors

Libby Frazier
efrazier1@uoregon.edu

Taylor Gooch
jgooch@uoregon.edu

Miranda Merrill
mmerrill@uoregon.edu

Scott Penny
spenny1@uoregon.edu

Hannah Wilson
hwilson1@uoregon.edu

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, *Biological Science* (Freeman, 3rd ed.), will be helpful, but is not required. If you have *Biological Science* 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	11%
Exam 2	11%
Exam 3	11%
Exam 4	11%
Quizzes	11%
Participation	5%
Lab	40%

Exams are not cumulative, except where material must build upon earlier concepts. Lecture quizzes will be administered each Friday except for the first week and 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. Participation is in the form of i►clicker responses. Our goal is to have three to five questions per lecture (excluding the first lecture) counted with i►clickers. Eighty responses will be counted for credit (answers do not have to be correct for you to receive credit). Responses beyond 80 won't be counted, so that you won't necessarily be penalized for a few missed sessions. See below for i►clicker policy and registration.

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; however, 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/bi214f09/>. Note that this is not a Blackboard web site, but is accessible through Blackboard under “Announcements.” 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/StudentConductandCommunityStandards/ConductCode/tabid/69/Default.aspx>

Bi214 i►clicker policy and registration

Since lecture participation via polling by i►clickers constitutes 5% of your total score in this course, it is recommended that you purchase an i►clicker remote from the UO Bookstore (these can be sold back to the UO Bookstore at the end of the term for about 50% of the new purchase cost; however, note that i►clickers are being used with increasing frequency on campus, and you are likely to have other courses that require their use).

In order to receive credit for in class use of the i►clicker, you will need to register your i►clicker remote online within the first two weeks of class. You must have come to class at least once and responded on all questions posed during that lecture in order to complete this registration properly. Once you have responded in at least one class meeting, go to the “Course Documents” section in the Bi214 Blackboard site. Complete the fields with your first name, last name, Duck ID (not student ID number), and remote ID. The remote ID is below the barcode found on the bottom of the back of your i►clicker remote. We have heard from some students that the numbers rub off easily, so you should record this ID number elsewhere. More recent models have the ID number on the inside of the battery cover.

The i►clicker response system will be used every day in class (with the exception of the first lecture and the four exam days), and you are responsible for bringing your remote daily. Since the use of i►clickers in this course contributes to each student’s final grade, in-class misuse of these devices may be considered as acts of academic dishonesty; this includes the loaning your i►clicker to a classmate who registers responses in your absence from lecture. If a student is caught using two i►clickers, both that student and the owner of the loaned device will receive a grade of “F” in the course. A few points of the 800 or so possible of your course score is not worth the risk of a failing grade.