

BB 451/551: General Biochemistry

MEETING TIMES

MWF 12:00-12:50, Milam Auditorium
Winter, 2017

INSTRUCTOR INFO

Dr. Kevin Ahern

Office ALS 2145

Contact: ahernk@onid.orst.edu or phone 541-737-2305

COURSE PREREQUISITES

CH 331&CH 332 or CH 334&CH 335&CH 336

LEARNING RESOURCES

1. Textbook: Biochemistry Free For All – Download at <http://www.davincipress.com/freeforall>
2. Instructor notes, practice exams, and audio/video of lectures (when technical problems do not exist) will be available through the class Schedule page on the class Web site. The class Web site URL is www.oregonstate.edu/instruction/bb451/.
3. Individual meetings/phone calls/ emails with the instructor are encouraged.

WEB MATERIALS

The class Schedule page will contain the schedule of topics covered in the class.

Topics Covered

Citric Acid Cycle
Lipids and Membranes
Membrane Transport
Mitochondria/
Oxidative Phosphorylation
Lipid & Steroid Metabolism
Fatty Acid Metabolism
Nucleotide Metabolism
DNA Replication/
Recombination/Repair
Transcription
Protein Synthesis
Gene Regulation
Sensory Systems
Immune System

Dates for topics in the course on the Schedule page are approximate and subject to change at the discretion of the instructor.

EXAMINATION INFO

(I) Exam #1: Announced on the Schedule page

(II) Exam #2- Announced on the Schedule page

(III) Final Exam (comprehensive) - Announced on the Schedule page

EXAM POLICIES

Makeup exams will be given only for absences excused by the instructor in advance of the exam. Excused absences will generally not be given for airline reservations or for routine illness (colds, flu, stomach aches), or other common ailments. Excused absences will not be given after the absence has occurred, except under very unusual circumstances. Regrades of exams will be performed when there is an error and the student requests it. All requests for regrading must be made in writing within three days of the day the exam is returned to the class as a whole. After that period of time, grades will be fixed and will not be changed. Regrade requests must clearly explain why the original grading was either incorrect or misunderstood. Illegible, misspelled, or unintelligible written requests will automatically be denied.

Makeup exams 1) are of a different format from the classroom exam and 2) are designed never to be easier than the classroom exam. The following situations are NOT grounds for missing an exam:

1. You misread the date of the exam on the syllabus.
2. You went to the wrong room.

GRADING

Course Points Distribution - Exam 1 (30%), Exam 2 (30%), Final Exam (40%). There is no extra credit possible beyond the occasional questions asked on exams and therefore I do not (and in fact cannot) take improvement during the term into consideration in assigning grades. No fixed grading scale will be used to assign letter grades and no fixed numbers of letter grades are set. Since there is no fixed grading scale (90/80/70/60, for example) grades are therefore "curved," since this is the definition of what "curved" means. Grades will be assigned on groupings as determined by the instructor at the conclusion of the course. Undergraduates will be evaluated and graded separately from graduate students.

If your grade is low and you wonder how to improve it, the answer is to improve your performance against the average compared to what you did previously. Because grades are assigned on a "curve," there is no way for me to tell you "how many points" you need to get a desired grade. This is only possible for grading schemes that use fixed percentages – 90% = A, 80% = B, etc.

It is the responsibility of each student to check that their exam has been properly graded. To request a regrade, a student must write an explanation clearly explaining the error that occurred in the grading of the exam. This written request must be stapled to the original exam and submitted to the instructor within 3 weekdays after the examination is returned

to the class. Failure to follow these instructions will result in automatic denial of the request. Frivolous requests involving “fishing for points” (for example – asking me to regrade simply to award you more points without a valid reason) will result in loss of points.

Students who ask questions about grading that are answered above or who ask questions about answers to exam questions without consulting the exam key will lose points.

LETTERS OF REFERENCE □ □

I am frequently asked to write letters of reference for students from the class. In general, I am happy to do so if I know you well and if you have made a good grade in the course. I have a written policy for letters of reference that you should read first, though – <http://oregonstate.edu/dept/biochem/hhmi/ahernletters.html>

COURSE POLICIES

Please note the date and time of the class exams. Reading and studying the assigned material before the lecture date is essential for success. Waiting to the last minute to study or prepare is a prescription for disaster.

POLICY ON INCOMPLETES

A grade of I is appropriate when 1) a course requirement has not been completed due to circumstances beyond the control of the student and 2) at least half of the work for the course has been completed at a level of C- or better. For medical problems that prohibited the student from fulfilling a requirement of the course, a note from a doctor is required. The request may be supplied without the note, and the request (if acceptable) will typically be granted, conditional on the note being provided later. For other circumstances, supporting evidence, such as a note from an advisor, will be helpful to the petitioner's case.

The following is a list of reasons that are **not** acceptable:

- The course proved to be more time-consuming or difficult than expected.
- Work in other courses ended up taking too much time.
- Work or travel associated with a job ended up interfering with course work.
- Time conflicts prohibited contact with the instructor or TAs during office hours.
- The student misunderstood the requirements or grading schemes of the course.
- The student wishes to avoid a low grade.
- The student wishes to retake the course at a later date

LEARNER OUTCOMES

The intention of the course is for students to:

1. Acquire the technical language used to communicate biochemistry information and to use that language to describe biochemical processes, such as metabolism, and molecular biology.
2. Recall key elements of basic biochemistry principles, including metabolic pathways, molecule names, molecular structures (as noted), respiratory control,

enzymes, and the central dogma.

3. Extrapolate information based on the material presented
4. Communicate (through writing and speaking) key concepts relevant to biochemistry
5. Understand and apply general concepts of biochemistry to relevant, specific problems.
6. Predict the direction of flow of genetic and metabolic information from an understanding of the control mechanisms and energy considerations of each.

LEARNER EXPECTATIONS

1. Advance preparations, including reading notes before lectures are given.
2. Avoid last minute studying
3. Questions to answer concepts/processes that the student does not understand BEFORE it is too late.
4. Recognition that an understanding of a complex topic like biochemistry requires considerable background prior to the class, a considerable amount of information to be acquired in the class, and sufficient time and effort to put these together to master the material.

GENERAL OSU AND DEPARTMENTAL POLICIES

Please note: "Students with documented disabilities who may need accommodations, who have any emergency medical information the instructor should know, or who need special arrangements in the event of evacuation, should make an appointment with the instructor as early as possible, no later than the first week of the term. In order to arrange alternative testing, the student should make the request at least one week in advance of the test. Students seeking accommodations should be registered with the Office of Services for Students with Disabilities."

The Department of Biochemistry/Biophysics follows the university policies on student conduct. These can be found at <http://oregonstate.edu/admin/stucon/regs.htm>.

Cheating or plagiarism by students is subject to the disciplinary process outlined in the Student Conduct Regulations. Students are expected to be honest and ethical in their academic work. Academic dishonesty is defined as an intentional act of deception in one of the following areas:

- *cheating- use or attempted use of unauthorized materials, information or study aids
- *fabrication- falsification or invention of any information
- *assisting- helping another commit an act of academic dishonesty
- *tampering- altering or interfering with evaluation instruments and documents
- *plagiarism- representing the words or ideas of another person as one's own

Behaviors disruptive to the learning environment will not be tolerated and will be referred to the Office of Student Conduct for disciplinary action.

"The goal of Oregon State University is to provide students with the knowledge, skill and wisdom they need to contribute to society. Our rules are formulated to guarantee each student's freedom to learn and to protect the fundamental rights of others. People must

treat each other with dignity and respect in order for scholarship to thrive. Behaviors that are disruptive to teaching and learning will not be tolerated, and will be referred to the Student Conduct Program for disciplinary action. Behaviors that create a hostile, offensive or intimidating environment based on gender, race, ethnicity, color, religion, age, disability, marital status or sexual orientation will be referred to the Affirmative Action Office.”