



DEPARTMENT OF BIOCHEMISTRY

**BCHM 463 Syllabus
Fall, 2016**

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Office hours: By appointment

LECTURE TA: Erin Sorlien
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Office hours: To be determined

COURSE OBJECTIVES

This course will provide students an understanding of how the three-dimensional shape of macromolecules dictates their function. Specific topics covered include processes by which genetic material programs the cell and mechanisms that the cell can use to respond to its environment. Students will develop an appreciation for the unexpected diversity of cellular processes and the dynamic state of scientific knowledge. Students will be provided practical experience in reading basic articles from the primary scientific literature.

LEARNING OUTCOMES

An understanding of the higher order structures of proteins and nucleic acids
An understanding of how genetic information is encoded and transferred in biological organisms
An understanding of the principles of enzyme catalysis and regulation
An appreciation of the contributions of biochemistry to medicine
An ability to locate and utilize information in the disciplines of biochemistry
An ability to communicate scientific knowledge and conclusions effectively as writers

TEXTBOOK

Fundamentals of Biochemistry, Life at the Molecular Level, 2013, Voet, Voet & Pratt.

This textbook is not required.

The following reference books are also on reserve at the Lilly Life Sciences library:

Protein Structure and Function, Petsko and Ringe, 2004

Introduction to Protein Structure, Branden and Tooze, 1999.

Genes X, Jocelyne Krebs, Elliott Goldstein, Stephen Kilpatrick, 2008.

Some of the material from this course will be covered by reviews from the scientific literature. These are accessible free of charge and electronically through the Purdue Library.

LECTURE TIME AND PLACE

Tuesdays and Thursdays, 10:30 – 11:45, BCHM 105

All lectures will be recorded, and will be available for students who miss a class or who would like to review a lecture. They can be downloaded at <http://www.itap.purdue.edu/learning/tools/boilecast/>

BLACKBOARD

The syllabus for the course, lecture notes, and grading keys for quizzes and exams will be available via the Purdue University Blackboard site at: <http://www.itap.purdue.edu/learning/tools/blackboard/>

ASSESSMENT

This course will be graded based on in class presentations. Presentations will be assessed based on the Scientific Oral Presentation Rubric posted to Blackboard.

EXTRA CREDIT

There will be no opportunity for extra credit.

OBTAINING EXTRA HELP

Dr. Golden will be available to answer your questions immediately after class or by appointment (arranged in class or by e-mail). Alternatively, you can submit questions by e-mail that can be answered in class or by return e-mail. Do not call Dr. Golden unless you are having an emergency, as she may be cranky and that would not be good.

The lecture TA will hold office hours for at least 2 hours per week, and will be able to answer additional questions by appointment.

ACADEMIC MISCONDUCT

Academic misconduct of any kind will not be tolerated in any course offered by the Department of Biochemistry. Information on Purdue's policies with regard to academic misconduct can be found at http://www.purdue.edu/studentregulations/student_conduct/regulations.html

Any incidence of academic misconduct will be reported to the Office of the Dean of Students. Academic misconduct may result in disciplinary sanctions including expulsion, suspension, probated suspension, disciplinary probation, and/or educational sanctions. In addition, such misconduct will result in punitive grading such as:

- receiving a lower or failing grade on the assignment, or

- assessing a lower or failing grade for the course

Punitive grading decisions will be made after consultation with the Office of the Dean of Students. Please note reported incidences of academic misconduct go on record for reference by other instructors. Further, a record of academic misconduct is likely to influence how current/future situations are handled.

To provide you with an unambiguous definition of academic misconduct, the following text has been excerpted from "Academic Integrity: A Guide for Students", written by Stephen Akers, Ph.D., Executive Associate Dean of Students (1995, Revised 1999, 2003), and published by the Office of the Dean of Students in cooperation with Purdue Student Government, Schleman Hall of Student Services, Room 207, 475 Stadium Mall Drive West Lafayette, IN 47907-2050.

"Purdue prohibits "dishonesty in connection with any University activity. Cheating, plagiarism, or knowingly furnishing false information to the University are examples of dishonesty." [Part 5, Section III-B-2-a, *Student Regulations*] Furthermore, the University Senate has stipulated that "the commitment of acts of cheating, lying, and deceit in any of their diverse forms (such as the use of substitutes for taking examinations, the use of illegal cribs, plagiarism, and copying during examinations) is dishonest and must not be tolerated. Moreover, knowingly to aid and abet, directly or indirectly, other parties in committing dishonest acts is in itself dishonest." [University Senate Document 72-18, December 15, 1972]

More specifically, the following are a few examples of academic dishonesty which have been discovered at Purdue University.

- substituting on an exam for another student
- substituting in a course for another student
- paying someone else to write a paper and submitting it as one's own work
- giving or receiving answers by use of signals during an exam
- copying with or without the other person's knowledge during an exam
- doing class assignments for someone else
- plagiarizing published material, class assignments, or lab reports
- turning in a paper that has been purchased from a commercial research firm or obtained from the internet
- padding items of a bibliography
- obtaining an unauthorized copy of a test in advance of its scheduled administration
- using unauthorized notes during an exam
- collaborating with other students on assignments when it is not allowed
- obtaining a test from the exam site, completing and submitting it later
- altering answers on a scored test and submitting it for a regrade
- accessing and altering grade records
- stealing class assignments from other students and submitting them as one's own
- fabricating data
- destroying or stealing the work of other students

Plagiarism is a special kind of academic dishonesty in which one person steals another person's ideas or words and falsely presents them as the plagiarist's own product. This is most likely to occur in the following ways:

- using the exact language of someone else without the use of quotation marks and without giving proper credit to the author
- presenting the sequence of ideas or arranging the material of someone else even though such is expressed in one's own words, without giving appropriate acknowledgment
- submitting a document written by someone else but representing it as one's own"

Students can report issues of academic integrity that they observe through the Office of the Dean of Students website (www.purdue.edu/odos), or 765-494-8778 or integrity@purdue.edu.

CLASS ATTENDANCE

- In accordance with University policy, you are expected to attend every scheduled class. If you have a valid reason for missing class such as a University-sponsored activity, religious observances, illness, or family emergency, the instructor or TA will assist you in obtaining information and materials you may have missed. Students who skip class without a valid excuse should not expect the instructor or TA to supply class notes or provide special help. For the official university policy, see: www.purdue.edu/odos/services/classabsence.php and http://www.purdue.edu/studentregulations/regulations_procedures/classes.html

EMERGENCY PREPAREDNESS

In the event of a major campus emergency, course requirements, deadlines and grading percentages are subject to changes that may be necessitated by a revised semester calendar or other circumstances. To get information about changes in this course consult the class Blackboard site or e-mail or phone the instructor.

ON-LINE COURSE EVALUATIONS

During the last two weeks of the semester, you will be provided an opportunity to evaluate this course and your instructor(s). To this end, Purdue has transitioned to online course evaluations. On Monday of the fifteenth week of classes, you will receive an official email from evaluation administrators with a link to the online evaluation site. You will have two weeks to complete this evaluation. Your participation in this evaluation is an integral part of this course. Your feedback is vital to improving education at Purdue University. I strongly urge you to participate in the evaluation system.

NON-DISCRIMINATION POLICY STATEMENT

Purdue University's non-discrimination policy will be upheld in this classroom. Purdue University is committed to maintaining a community which recognizes and values the inherent worth and dignity of every person; fosters tolerance, sensitivity, understanding, and mutual respect among its members; and encourages each individual to strive to reach his or her own potential. In pursuit of its goal of academic excellence, the University seeks to develop and nurture diversity. The University believes that diversity among its many members strengthens the institution, stimulates creativity, promotes the exchange of ideas, and enriches campus life.

Purdue University views, evaluates, and treats all persons in any University related activity or circumstance in which they may be involved, solely as individuals on the basis of their own personal abilities, qualifications, and other relevant characteristics.

In this course, each voice in the classroom has something of value to contribute. Please take care to respect the different experiences, beliefs and values expressed by students and staff involved in this course. We support Purdue's commitment to diversity, and welcome individuals of all ages, backgrounds, citizenships, disability, sex, education, ethnicities, family statuses, genders, gender identities, geographical locations, languages, military experience, political views, races, religions, sexual orientations, socioeconomic statuses, and work experiences

For more information, see http://www.purdue.edu/purdue/ea_eou_statement.html.