

BIOC 205: BIOCHEMISTRY I

Fall 2014

Class Time and Location:

Room 108, Terrill Hall

Class Sessions: Mon, Wed, and Fri, 10:40 A.M. - 11:30 A.M.

Review Sessions & Exams: Tue, 7:00 P.M. – 9:45 P.M.

Instructor/Course Director:

Jay Silveira

C413 Given Building

Office Phone: 656-3101

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Office Hours: by appointment

Teaching Assistants:

Nikolas Morning – Email: nmoring@uvm.edu

Addi von Eynern – Email: avoneyne@uvm.edu

Megan Meuser – Email: mmeuser@uvm.edu

Course Description:

Biochemistry I is the first half of the Biochemistry I/II course series, and it introduces the chemistry of amino acids, proteins, carbohydrates and lipids. Chemical and thermodynamic principles are fundamental to the course, and will be used to understand the bases for enzymes and their mechanisms, as well as the bioenergetics of metabolic processes. This course introduces the core metabolic pathways of glycolysis, the citric acid cycle, and oxidative phosphorylation, while the remainder of the main metabolic pathways in humans, the integration of metabolism, and the structure, function, and metabolism of nucleic acids and information transfer is covered in Biochemistry II.

Prerequisites:

Two semesters of organic chemistry (CHEM 141/143 and CHEM 142/144) are required.

Textbook:

Biochemistry, 5th Edition, by R.H. Garrett & C. M. Griffin, 2013, Brooks/Cole, Cengage Learning, Belmont., CA, ISBN # 978-1-133-10629-3.

Textbook Reserve:

Two hardcover copies of the textbook are available on two-hour reserve in the Bailey/Howe Library.

Textbook Supplement:

We will be using UVM Blackboard (<http://bb.uvm.edu>) with this course. Copies of lectures and review sessions will be available in the "Course Materials" section of Blackboard, organized by date. The course introductory sheet, and any other information will be available in the "Course Materials" section.



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Lecture Slides and Lecture Audio:

Paper copies of the lecture slides will be provided for each class period – these slides will lack some information so that you can answer questions and make your own notes on your slides during lecture. Full versions of the slides with all the material and notes that the instructor has added will be available on Blackboard after class. The audio from each lecture will be recorded in mp3 format and this will also be available on Blackboard after class. These audio files are not meant to be a replacement for coming to lecture! They are meant for those who are auditory learners, those that would like to listen to the lecture again and refine their notes, those that miss class, or those that want to use it in any way that enhances their understanding of the material. Please note that while we try to record every lecture, it is not an automated process, so we may forget and there can be technical difficulties. It's possible that a lecture may not get recorded for various reasons, so don't rely on them as a substitute for attending lecture.

Review Sessions:

Review sessions will be held by the teaching assistants in every Tuesday evening session in which there is not an exam. During these sessions, they can work book problems, review problems from the problem sets, daily clicker questions, or exams, provide general review, or engage in other activities to help students with the course material. We will also make an effort to record the audio from these sessions as deemed appropriate by the teaching assistants.

Academic Integrity:

With respect to examinations, the use of iClickers, and any relevant course activities, we tightly adhere to the University's policy on academic integrity. Please review it at:

<http://www.uvm.edu/~uvmppg/ppg/student/acadintegrity.pdf>

Missed Classes and Exams: Any student who will miss an exam must contact the instructor BEFORE the exam is scheduled to begin. If this is done, a make-up exam can often be arranged. If the instructor is not contacted by the time the exam begins, an excuse from your Dean's office or other documentation will likely be required. Students are expected to attend all regularly scheduled classes, except for those occasions warranting an excused absence under the University of Vermont Attendance Policy.¹ For the specific cases of absence indicated below, students should make arrangements with their instructor to make up missed work:

Illness: Students need to submit appropriate documentation from the Center for Health and Wellbeing or another medical professional when exams are missed due to illness. This documentation needs to be presented to the Instructor as soon as possible, and no later than one week following the absence.

Religious Holidays: Students should submit to their instructor in writing their documented religious holiday schedule for the semester by the end of the second full week of classes.

Athletic Academic Conflicts: A "Notice of Class Absence Due to Competition" memo should be submitted by the end of the second full week of classes.

Other absences may be excused on a case-by-case basis.

Grade Appeals: Adjustments in exam scores must be made within one week following the release of

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Course Director/Instructor: Jay Silveira

Teaching Assistants: Nikolas Moring, Addi von Eynern, & Megan Meuser

Textbook: Garrett & Grisham Biochemistry, 5th Edition

Date	Lecture	Topic	Textbook Reading	Recommended Problems
8/25 (M)	1	Introduction / Biomolecules	1.2-1.3 (pp. 4-10)	Ch 1: 5a-d
8/27 (W)	2	Bonding	1.4 (pp.10-17)	Ch 1: 7-10
8/29 (F)	3	Water	2.1 (pp. 30-37)	