

Biochem 523: General Biochemistry
Fall 2009
Course Information

9 Sep 2009

Instructors

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Supplementary Instructor: TBA

The first half of the course will be taught by Prof. Garman, and the second half will be taught by Prof. Heuck.

Class meetings

Lectures will be held in the Integrated Sciences Building (ISB) 221. Classes meet MWF, starting at 11:15am sharp and continuing until 12:05pm.

Prerequisite courses

- Intro to Molecular & Cellular Biology (Biochem 285 or equivalent) with a grade of B- or better.
- Organic Chemistry (Chem 261 or Chem 265 or equivalent)

We assume familiarity with the formalisms of organic chemistry, including chirality, nucleophile/electrophile reactions, and lone pair electron shifts. Please refresh your organic chemistry if you are rusty.

Required materials

- *Essential Biochemistry* by Charlotte W. Pratt and Kathleen Cornely (ISBN 0-471-39387-8)
- *Protein Structure and Function* by Gregory A. Petsko and Dagmar Ringe (ISBN 0-878-93663-7)
- Radio Frequency Personal Response System (PRS) transmitter

Other resources

- Course homepage: <http://www.courses.umass.edu/bioch523/>
Please check the homepage frequently for all course information. It will be updated frequently with announcements, links to pdf, flash, and mp3 materials from the lectures, etc.

Personal Response System - PRS

Purchase a "clicker" in the bookstore and bring it to **every** class. We will be using the Radio Frequency clickers in the course (UMass no longer supports the older infrared clickers). We will use the PRS transmitters to ask questions during the class time. Bringing your PRS clicker to class every day is a very easy way to get points in the course. The PRS will count for 1/6 of the credit in the course, so please make sure the batteries are fresh and your clicker is in good working order. No makeup credit will be given for PRS.

Exams and Quizzes

There will be four exams. The first three exams will be held in the evenings on Wednesday September 30th, Wednesday October 28th, and Wednesday November 18th. The final exam will be held during finals week, at a time to be determined by the Registrar's Office.

If you are unable to attend one of the scheduled evening exams, you must inform us one week ahead of the exam. Makeup exams will take place **before** the scheduled exams, in the morning during class time.

We will have four in class quizzes throughout the semester, on September 21st, October 14th, November 9th, and December 2nd. The quizzes are intended to ensure that you keep with the reading and the homework. There are no makeup quizzes allowed.

We expect that you will abide by the academic honesty policy of the campus. We expect you to do your own work on exams and quizzes. You may bring **ONLY** your brain and pens or pencils to exams. The exams will not require complex calculations, so all electronic devices must be turned off for the exams: no cell phones, calculators, PDAs, etc. **We take honesty very seriously.**

If you miss an exam or quiz for medical reasons, please bring a note from your physician.

The final will not be given early, so to be safe, don't schedule your flight until the end of exam period.

Grading:

Exam 1	100 pts	Wednesday, September 30
Exam 2	100 pts	Wednesday, October 28
Exam 3	100 pts	Wednesday, November 18
Exam 4	100 pts	To be scheduled
4 Quizzes	100 pts	Sep 21, Oct 14, Nov 9, & Dec 2
Other	100 pts	PRS, etc.
Total	600 pts	

An overall grade of 93% is assured to get an A, 83% will earn at least a B, and 73% will earn at least a C. We might adjust grades upwards at the end of the semester depending on exam averages.

Extra credit problems will be available on exams and quizzes throughout the semester.

Miscellaneous

We introduced some new technology into the course last year, and we will continue based upon very positive student feedback. The Biochemistry department received a grant to improve student learning through the use of inking, wireless, and capture technologies. We intend to record our lectures and have the results available as flash and mp3 downloads from the course web site.

In the event of a serious illness or family emergency, please contact the instructors any way possible (preferably by e-mail; voice mail or via a friend are also possible) so we have your name and written information. We will help you every way possible to catch up with material missed.

How to do well in this course:

1. Come to class every time.

Learning biochemistry is like learning a language. Hearing it spoken and learning to speak it yourself are just as important as learning to read and write it. You are responsible for all of the assigned material (even if we didn't "cover" it in class or if you didn't attend class).

2. Do your homework regularly.

The way to learn general biochemistry is to do active learning: work problems, read the text, and study your notes. Think actively: draw structures and work problems with a pencil and paper. Work the problems all the way through to a solution before you look at the answers. It is well known that waiting until the last minute to "cram" for exams is not an effective way to learn.

3. Read the book ahead of class time.

You will understand the lecture material much better if you have done the reading ahead of time. Lectures only cover a small fraction of the information that appears in the texts.