

Biology 203 Syllabus – Spring 2014

General Information on Course Requirements and Grading

Time and Place:

Tuesday / Thursday from 12:30 – 1:45 PM, Exercise and Nutritional Sciences (ENS) 280

Introduction:

Biology 203 (BIOL 203), "Principles of Cell and Molecular Biology," is one course of a two-semester sequence for biology majors, Biology 203 and 204. Note: this course is not a GE course; it is a required course for all biology majors. In BIOL 203, we introduce principles that apply to all living organisms. The underlying theme is the unity of life, while Biology 204 covers the diversity of life. The biological disciplines covered include biochemistry, cell biology, classical genetics, and molecular biology. Consequently, BIOL 203 provides a foundation for much of your upper division coursework in biology, particularly Genetics and Evolution (Biol. 352) and Biochemistry, Cell, and Molecular Biology I, II, and III (Chemistry 365, Biology 366, and Biology 567).

Instructor

Dr. Ralph Feuer

Office: South Life Sciences 358

Phone: (619) 594-7377

Email: rfeuer@mail.sdsu.edu

Office Hours: Tues 3:30pm-4:30pm or by appointment

If you must contact the instructor, make sure to put "BIOL 203" at the beginning of the subject line in order to properly pass email spam filters.

Information regarding Biology 203L (BIOL 203 Laboratory Course):

Starting in the fall of 2009, BIOL 203L (a previously-associated laboratory course) has been detached from BIOL 203 (lecture course).

Enrollment Information / Obtaining Add Codes for BIOL 203:

Add codes for Biology 203 will be given to SDSU students after verification of enrollment in Biology 203L (a separate laboratory course administered by Dr. Forest Rohwer - frohwer@gmail.com). An email with an attached snapshot showing BIOL 203L enrollment will be considered sufficient verification. Thereafter, an add code will be emailed to students. Students already enrolled in BIOL 203 do not need to verify co-enrollment (computer enforced) with BIOL 203L. Please direct any questions regarding BIOL 203L (a separate laboratory course), including enrollment and add code questions, to the BIOL 203L Laboratory Coordinator - Felise Wolven (fwolven@mail.sdsu.edu). If a student has previously taken BIOL 203L (laboratory course) and would like to repeat BIOL 203 (lecture), please contact Undergraduate Advising and Curriculum – bioundergrad@sunstroke.sdsu.edu regarding enrollment and verification of laboratory completion.

Prerequisites:

Although BIOL 203 is introductory in nature, we will cover a great deal of material. Therefore, as a minimum background you should have **all of the following**:

1. A **college-level chemistry course** such as **Chem. 200** is required as a prerequisite. **You should not take BIOL 203 course without Chem. 200 or its equivalent. You face possible course failure for lacking prerequisites.**
 2. A **working knowledge of algebra** (graphing, interpreting graphs, simple equations, logs, exponents, etc.).
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Biology 203 Course Information:

All information for this course will be posted on Blackboard. Also, a limited amount of material will be posted on Dr. Feuer's Web Page (<http://www.bio.sdsu.edu/Pub/feuer/ralph.html#courses>) for students not yet enrolled in the course. The BIOL 203 Blackboard site contains course information including the lecture schedule, lecture notes, and a bulletin board for course announcements. Students can obtain a free email account if they do not already have one; check in the Student Computing Center in the Love Library.

Course Organization:

This semester, BIOL 203 will be taught by one lecturer. The course will be divided into 4 unequal segments:

**Cell Structure and Function
Energy Metabolism**

**Classical Genetics
Molecular Biology**

Textbook Required:

Campbell and Reece, *Biology* 9th Edition; Pearson/Benjamin Cummings, 2011

Publisher Website : www.campbellbiology.com

“**Mastering Biology**”, the on-line tool which accompanies the text, is **required** for access to many study guides and **all** homework assignments and extra credit quizzes.

Assigned reading from the text accompanies each lecture. Each reading assignment is described on the Course Schedule. You are responsible for all text material assigned with emphasis on material that relates directly to the lectures. You need not bring the text to lectures. There is a Lecture Notebook and/or CD that may be packaged with the textbook; this contains figures from the text and space for lecture notes. Some of you may have acquired the 8th edition of Campbell. The information in the two editions is similar, but the course will rely on the information contained within the 9th edition of the textbook. Access to MasteringBiology comes with new copies of the textbook. MasteringBiology can be purchased separately if you purchased a used textbook or are renting a textbook.

Learning Objectives:

In this course you will learn the fundamentals of Cell and Molecular Biology - principles that apply to all living organisms.

By the end of the course, students will be able to:

- Describe the importance of water to biological systems
- Understand the basic principles of organic (carbon-based) chemistry as it relates to life
- Describe and understand the structure and function of large biological molecules
- Describe and understand the basic structures and properties of cells
- Understand and explain membrane structure and function
- Describe and understand the principles and processes of cellular metabolism and respiration
- Understand the process of photosynthesis
- Compare and contrast the similarities and differences between mitosis and meiosis
- Describe the principles of Mendelian genetics
- Describe and understand the principles and major features of the chromosomal and molecular basis of inheritance
- Understand the flow of genetic information from DNA to RNA to Protein and describe those processes at the molecular level
- Understand and describe the basic properties of gene regulation and cell communication

Grading:

Exam I material	100 points
Exam II material	100 points
Exam III material	100 points
Exam IV material	100 points
Homework - 10 assignments	100 points

Your grade will be based on a percentage basis calculated by adding Exams Scores + Homework Assignment Scores / 500 points. Any Extra Credit given during the course will be “extra credit”. For example, if you receive

perfect scores on all Exams and Homework Assignments, and extra credit opportunities your grade can be calculated in the following way: 400 points (four Exams) + 100 points (10 Homework Assignments) + 40 points (Extra Credit assignments) / 500 Points = 540 points / 500 points = 108% = "A" grade (assuming 40 Extra Credit points will be provided during the semester).

No grading curve will be implemented. The point values of the lecture exams are shown on the lecture outline. Consult the course schedule for Exam dates. **There will be no comprehensive final exam.**

Grading Scale:

Grades are earned on a straight percentage basis as shown below:

Scale:	B+: 87-89.9%	C+: 77-79.9%	D+: 67-69.9%	F: <59.9%
A: 93-100%	B: 83-86.9%	C: 73-76.9%	D: 63-66.9%	
A-: 90-92.9%	B-: 80-82.9%	C-: 70-72.9%	D-: 60-62.9%	

Exams will be objective (mostly multiple choice questions). Some short-answer problems/essays (a sentence or two up to a couple of paragraphs) may also be included in the Exams. These Exams will assess your knowledge of both lecture and reading assignments. **Questions will be drawn from both the lecture and reading assignments.** If you have a **legitimate excuse**, be sure to notify the course instructor **by the day after the Exam or Homework Assignment**. Be prepared to provide **written confirmation** (letter from your doctor etc.). Job-related excuses are not acceptable; you are responsible for arranging your work schedule around your classes.

- During the lecture course, there will be opportunities to earn extra credit – these opportunities will be explained in lecture. Attendance during lectures may be necessary to earn extra credit points.
- The **MasteringBiology** CD and website (<http://www.masteringbiology.com/site/login.html>) is a valuable online tutorial and assignment/quiz assessment activity site. The *MasteringBiology* course ID for BIOL 203 - Spring 2014 will be given during the lectures, and also posted on Blackboard. There will be 10 homework assignments in *MasteringBiology* during the course. Each homework assignment will be **available for a limited time only** and announcements will be made in class as to when the assignments are available and for how long they can be accessed. **IMPORTANT:** log on to *MasteringBiology* BEFORE the first assignment to verify your account works without technical problems. Technical problems must be addressed through the *MasteringBiology* website and may result in the loss of valuable points if they occur during a Homework Assignment. Be sure to include your Blackboard name and valid Student Red ID number when registering for *MasteringBiology*.
- A series of self-study quizzes for each chapter may be provided on Blackboard or through **MasteringBiology**. You should take advantage of these quizzes if they are available as they will help you to understand the material in this course.
- If you are having difficulties in the course and you would like our assistance with suggestions on how to improve your grade, please contact us as soon as you begin having difficulties. If you have an issue that is affecting your performance, contact us immediately. **Do not wait until the end of the course** or contact us about difficulties after the course is over. Although any grading errors will be corrected, no replies will be given to emails from students requesting special grade considerations.
- **Once you have earned a grade in the class, there is NOTHING we can do for you!** So let us work with you during the semester – we will help in anyway we can (for example, explain material, answer questions, go over concepts you are struggling with, advise you how to study and prepare, etc.). Please remember, however, that for fairness to all students, no student will be offered opportunities not offered to the entire class. Take

advantage of the opportunities you have: attend lecture, read the book, use the on-line tutorials, complete the homework assignments, ask questions, take advantage of extra credit opportunities, and use office hours!

Cheating, Class Etiquette, and Special Accommodations:

Any offences of cheating, including plagiarism, will result in the student being reported to the judicial office. Cell phones must be turned off during class. If you must be available via cell phone for potential emergencies, set your phone to vibrate mode. Please be considerate of your neighbors and avoid distractions such as carrying on conversations or entering and exiting during lectures. **NO cell phones or ear phones of ANY kind will be allowed during exams!** To request disability accommodations, please make an appointment to speak with the instructor early in the semester.

Lectures:

The instructor will post PDF versions of lectures on BlackBoard – print them and use them to take notes during lectures.

Students with Disabilities:

If you are a student with a disability and believe you will need accommodations for this class, it is your responsibility to contact Student Disability Services at (619) 594-6473. To avoid any delay in the receipt of your accommodations, you should contact Student Disability Services as soon as possible. Please note that accommodations are not retroactive, and that the course instructor cannot provide accommodations based upon disability until he/she has received an accommodation letter from Student Disability Services. Your cooperation is appreciated.

Final Note:

BIOL 203 covers a lot of material. In order to pass the course, you should **keep up with the material on a daily basis. Attend lectures**, take detailed notes of your reading and the lecture (this involves more than copying down what the lecturer writes on the board!) either annotate or recopy your notes while the lecture is still fresh in your mind, and use the text to fill in gaps and correct ambiguities. Try to answer questions at the end of the text chapters or use the "Interactive Study" guide which comes with your text. Take advantage of the online resources provided by the textbook publisher. These are all proven mechanisms for obtaining command of the subject matter, but it requires time. If you need assistance for any reason (for example to clarify a confusing concept or explain what the instructor expects, etc.), please contact the course instructors by email for clarifications.

Finally, be sure you understand the material as we go. Memorizing facts without understanding the conceptual framework is like trying to memorize 100 telephone numbers. Use the text and/or the instructor's office hours to sort out difficulties in understanding the material when these problems arise, not the day before the exam! **Most students find that the exams are hard!** They will test your understanding of concepts as well as the facts that support them. We will ask you to use your knowledge, not just spit it back. One method many students find successful is to study in small groups, but also leave time to study on your own. You should plan on devoting 10-12 hours per week study time (outside of class time).
