BIOLOGY 181: General Biology
Summer I 2007
Phoenix College

Instructor: Herb Wildey
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Office hours: By Appointment
Lecture section: 0258: MTWTh 9:30-11:20, Room DB-201
Lab sections: 0260: MW 12:00-3:45 pm, Room DB-108

Required Textbook and Lab Manual:
Biology,Campbell & Reece, 7th ed., 2005, Benjamin Cummings.
Biology 181 Laboratory Manual, furnished by the Biology Department

COURSE GOALS:

1. Acquire understanding of:
   - basic characteristics of life
   - chemical structure and function of organic building blocks
   - cell structure and function
   - membrane structure and cellular transport
   - characteristics of prokaryotic and eukaryotic cells
   - process of cellular respiration and photosynthesis
   - process of mitosis, meiosis, DNA duplication and protein synthesis
   - Mendelian genetics and genetic crosses
   - gene regulation and genetic applications
   - biological classification and characteristics of each kingdom
2. Learn to apply the scientific method to ask questions and seek answers
3. Obtain understanding of the contemporary applications of science
4. Develop and utilize critical thinking and communication skills

A note from the Arizona Board of Regents: The Arizona Board of Regents has established as a general guideline that each course should require a student to spend a minimum of two hours in preparation outside the class for every hour spent in class. This time should be devoted to reading, taking chapter notes, writing papers, completing assignments, and studying for tests and quizzes. BIO 181 is a science class. For many students, the above recommendations are conservative when it comes to science classes. I suggest you add up these hours and determine if you have time outside of class for BIO 181. If not, you may have to consider retaking it when you have more time to devote to school.

"The young specialist in English Lit, ...lectured me severely on the fact that in every century people have thought they understood the Universe at last, and in every century they were proved to be wrong. It follows that the one thing we can say about our modern "knowledge" is that it is wrong.

... My answer to him was, "... when people thought the Earth was flat, they were wrong. When people thought the Earth was spherical they were wrong. But if you think that thinking the Earth is spherical is just as wrong as thinking the Earth is flat, then your view is wronger than both of them put together." Isaac Asimov (1920-1992)

Evaluation: You will be evaluated on the basis of quizzes, exams, and lab work. Class participation and attendance are MANDATORY. Students who miss a lecture quiz will be able to make it up ONLY if they have contacted me BEFORE the exam with a LEGITIMATE reason. Lecture quizzes will be mostly multiple choice and matching, with some short answer questions as well. Quizzes will cover the material of the week not covered by the previous quiz. See schedule for lecture quiz and assignment dates.

Grading for the entire class is as follows:

Lecture Quizzes (6 at 50 each)	300 points
Writing Assignments (2 at 25 each)	50 points
Genetics Problem Set	50 points
Lab Quizzes (9 at 10 each)	90 points
Lab Completion (9 at 10 each)	90 points
Attendance & participation	20 points
Lab report (lab 3-enzyme lab)	50 points
Total	**650 points**

90-100%	A
80-89%	B
70-79%	C
60-69%	D
Below 60%	F

Academic Dishonesty: Academic dishonesty includes **cheating** and **plagiarism** and will be dealt with in accordance with college policy. (Phoenix College Student Handbook pages C-7/C-8.) I encourage all of you to form study groups to help each other learn this material outside of class. This does not mean that work from members of a study group should be identical. This is especially important when it comes to lab papers. Your papers should reflect your work and knowledge and nobody else's. You must put ideas in your own words, else it is considered plagiarism.

Disruptive behavior: Disruptive behavior in class will not be tolerated and will be dealt with in accordance with college policy. (Phoenix College Student Handbook pages C-23/C-28.) Disruptive behavior includes harassment of other students or instructor and inappropriate or unsafe activities with respect to other students, instructors, equipment or supplies. Habitual tardiness is disruptive, as is text messaging, answering your cell phone, letting your cell phone ring, continually chatting with your friend, snoring, eating potato chips…… Please refrain from doing these activities.

Class website: A class website will be available for us to use. The address is:
http://www.geocities.com/biology181
On this website I will post 'barebones' lecture notes, assignments and other items. Check this website early and often. The password for accessing all documents is "biowow".

Disability Support Services: It is a students responsibility to meet with the campus Disability Support Services Office before the first week of class, or as soon as possible. (Phoenix College Student Handbook pages A-13/A-14.)

"I think, however, that there isn't any solution to this problem of education other than to realize that the best teaching can be done only when there is a direct individual relationship between a student and a good teacher - a situation in which the student discusses the ideas, thinks about the things, and talks about the things. It's impossible to learn very much by simply sitting in a lecture, or even by simply doing problems that are assigned." -- Richard Feynman (1918-1988)

LECTURE SCHEDULE

Section #0258
Summer 2007

Schedule is subject to change at instructors discretion

Course Outline (Topics, Reading, Assignments)	Week
Characteristics of Life (Ch 1) Chemistry of Life (Ch 2) Polarity of water and pH (Ch 3) **Quiz #1-Thursday, May 24**	Week 1 (May 21-24)
Carbon & Diversity of Life (Ch 4) Macromolecules (Ch 5) Energy & Metabolism (Ch 6) **Quiz #2-Thursday, May 31** **No Class or labs Monday May 28**	Week 2 (May 28-May 31)
Cell Structure & Function (Ch 7) Membrane Structure and Function (Ch 8) Cellular Respiration (Ch 9) Photosynthesis (Ch 10) **Quiz #3-Thursday, June 8** **Writing Assignment 1-Due Wednesday, June 7**	Week 3 (June 5-8)
Cell Cycle & Mitosis (Ch 12) Meiosis (Ch 13) Mitosis & Meiosis (Ch 12-13 continued) **Quiz #4-Thursday, June 15**	Week 4 (June 12-15)
Mendelian Genetics (Ch 14) Patterns of Inheritance (Ch14) Human Chromosomes and human disorders (Ch 15) **Quiz #5-Thursday, June 22**	Week 5 (June 19-22)
DNA Structure and Duplication (Ch 16) Protein Synthesis (Ch 17) **Quiz #6-Wednesday, June 28** **Writing Assignment 2-Due Tuesday, June 27**	Week 6 (June 26-28)

"Equipped with his five senses, man explores the universe around him and calls the adventure science." -- Edwin Hubble