

Instructor: Greg Horwitz, Ph.D.
Spring 2015 Section 0394
MSA 005

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F 9:35am-12:50pm
Office Hours: F 1:00pm or by appointment

BIOLOGY 3A INTRODUCTION TO BIOLOGY (LECTURE)

IMPORTANT: READ THE SYLLABUS! ANSWERS TO MOST OF YOUR NON-BIOLOGY QUESTIONS CAN BE FOUND HERE!

NOTE ABOUT ME : I REQUIRE YOU TO USE YOUR BRAIN

My teaching style requires effort and participation from your part. This is not a class where you learn passively by just listening to me talk. I believe that people learn best from DOING. In addition, I believe that, in life, people who simply TRY generally are more successful than people who don't put in effort. Therefore, a significant portion of your grade is based on the amount of effort you put in as evidenced by the completion of assignments/quizzes, some of which are homework and some are in-class. In other words, you cannot expect to do well in this class if you do not attend class, even if you ace all of the exams. Another reason to make sure to complete assignments: **in the event of borderline grades, those students who achieve 80% or better in completing assignments/quizzes will receive the next higher grade.**

The easiest way, by far, to help improve your grade is to complete the homework assignments (25% of your grade!)

COURSE DESCRIPTION

This is a course in general biology designed to fulfill a laboratory science requirement and will also provide a foundation for advanced courses in biology, including human anatomy, physiology, and microbiology. The lecture portion of the course emphasizes the basic principles in biology, cell structure and function, and the levels of organization in the human body. Lecture topics include the scientific method, biological chemistry, cellular respiration, photosynthesis, heredity, molecular genetics, evolution and ecology.

Exams focus heavily on lecture content, not the textbook – another important reason to show up!

The laboratory portion of the course includes an introduction to the microscope, detailed study of cells and tissues, a survey of the microorganisms, plants, and animals that comprise the five kingdoms of life, and a detailed dissection and study of the fetal pig. Emphasis is on critical analysis and the diversity of life.

You will receive a separate grade for each.

It is not necessary to have the same instructor for both.

We recommend that you take both the same semester.

In addition, this course will help students achieve the following Institutional Student Learning Outcomes:

A. Critical Thinking: Analyzing problems by differentiating fact from opinions, using evidence, and using sound reasoning to specify multiple solutions and their consequences.

B. Technical competence: Utilize the appropriate technology effectively for informational, academic, personal, and professional needs.

REQUIRED TEXTBOOK

S. Mader; Biology: Inquiry Into Life; McGraw-Hill Publishers;
2014 (14th ed) with CD ROM [ISBN 07-352552]

***Textbook reading is a required part of the course. You MUST own or have access to the textbook. There is a copy on reserve in the library. DO use the textbook for background and details, to aid in the comprehension of lectures, and for further exploration – in other words, as a tool. DO NOT memorize the textbook in preparation for exams – you would be missing the point.**

REQUIRED: ACCESS TO A COMPUTER & THE INTERNET

Website that will be crucial to your success in this class:

1. The Bio3A class website: <http://sites.google.com/site/wlacbio3aS15/>

All class-related information, including this syllabus, will be posted on this website. As I try to use as little paper as possible, ALL of your homework assignments will be posted and submitted online. You will also find lecture PowerPoint presentations and your exam scores posted on this website.

EXAM SCHEDULE

Exam 1: March 6

Exam 2: March 27

Exam 3: April 24

Exam 4: May 15

Final: Friday, June 5, 9:35-11:35AM *The Final Examination is comprehensive for the entire semester.*

All examinations will consist of objective-type questions (ie., True/False; Multiple Choice; and Matching questions) that will be answered on **SCAN-TRON (882) forms** and short-answer questions. You will be expected to provide SCAN-TRON 882 forms (available at the bookstore) and a **soft lead no. 2 pencil with a good eraser** for each examination for computer scoring.

The Final Examination is comprehensive for the entire semester.

The lowest **midterm** exam score is dropped. **There are NO make-up examinations.** If you must miss one exam, that will be the one dropped. If you already know that you must miss more than one exam, this section is not suitable for you.

Consider the exam dates carefully; they are NOT flexible. Changes in exam dates occur only in the event of serious emergencies and will be approved on a case-by-case basis. I teach multiple courses at multiple schools and am only on this campus on a limited basis. Therefore, I am not available to proctor alternative exam dates/times.

You will not be able to keep exams and answer sheets, but you will be able to review your Scantron with the exam keys upon request. Exam scores are posted on the class website but will only remain there for a limited amount of time.

RULES OF CONDUCT DURING EXAMS

1. You **MUST** arrive at class with a Scan-tron, sharpened pencil, and a good eraser. You may not begin an exam until you have these items, and you will not be allowed to borrow them from classmates.
2. Once you have received your exam, you may not leave the room until you have finished.
3. Anything that makes noise or allows you to communicate with anyone/thing else must be turned off.
4. Anyone who is **SUSPECTED** of cheating will be asked to leave the room and will fail the exam. Additional disciplinary procedures will follow.

GRADING

Writing assignments – 25%

Exam 1 – 18%

Exam 2 – 18%

Exam 3 – 18%

Final – 21%

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

WITHDRAWAL

You are responsible for your credit and enrollment status. Any student withdrawing from class must inform the admissions office of this decision. **Students failing to follow the correct procedure for withdrawals may receive a grade of "F" for the semester.**

EXPECTATIONS OF STUDENT CONDUCT

1. BE CONSIDERATE of others. Don't talk during class. Don't text. Turn off your cell phone. Raise your hand before speaking.
2. Arrive on time. Frequent tardiness is disruptive to others, bad for your learning, and is strongly discouraged.
3. Attendance: students who miss three classes may be dropped.
4. Please do not leave the room more than once during class. If you find yourself having to do so, please take the day off.

In addition, students are expect to adhere to the WLAC Standards of Student Conduct as published in the college catalog and the Schedule of Classes.

CHEATING/ACADEMIC DISHONESTY

Each student is expected to do his/her own work on all assignments, reports, examinations, etc. **CHEATING WILL RESULT IN DISCIPLINARY ACTIONS.**

Here is a list of some (but not all) actions that are considered cheating:

- Showing a fellow student your exam, or passing information in any way.
- Using translation dictionaries.
- Turning in someone else's work.
- Providing your work for someone else to copy.
- Talking during the exam.
- Looking at other people's exams.
- Using notes of any kind.

SUGGESTIONS ON DOING WELL IN THIS CLASS

1. Start monitoring your grade from day 1. Have a plan of attack. Develop a Plan B. Don't wait until Exam 3 or 4 to start worrying about your grade.
2. Keep up with the reading and review everyday. Don't cram. It is never too early to start studying!
3. Be an active learner. Take notes, go on the Internet to find additional information, ask questions, quiz each other on information, etc. DOING facilitates learning.
4. If you miss class, it is your responsibility to get information that you missed. Check with your classmates.
5. Be organized!
6. This class is not hard, but there is a lot of information. In addition, taking a science class is similar to learning a new language. So expect to put in effort. But also, always, keep in mind that you are absolutely capable of doing well in this class.
7. Recognize when you need help and seek it out. Some resources available to you include: seeing me during office hours, your classmates, tutoring, and your textbook.
8. Nothing simplifies like repetition. When in doubt, repeat repeat repeat.
9. Attend class!!!

SCHEDULE (Subject to change)

Week	Date	Lecture Topic	Textbook Reading
1	Feb 13	Introduction; Scope of biology; Characteristics of living things; Atoms & Molecules	p.1-17; p.18-30
2	Feb 20	Molecules of life; The cell	p.30-42; p.43-62
3	Feb 27	Moving in and out of the cell; Cell division	p. 63-78, p.79-98
4	Mar 6	Exam I ; Cancer	p.509-514
5	Mar 13	Structure of DNA; Mendelian Genetics	p. 494-509; p. 38-40; p.480-493; p.462-479
6	Mar 20	Molecular Genetics; DNA Technology	p. 517-532
7	Mar 27	Exam II ; Taxonomy & Evolution	p. 533-560
8	Apr 3	Biochemical Reactions and Energy; Enzymes	p.99-112
	Apr 10	SPRING BREAK	
9	Apr 17	Photosynthesis	p.126-141
10	Apr 24	Exam III ; Cellular Respiration	p.113-125
11	May 1	Immune System; Nervous System	p. 231-251; p.310-338
12	May 8	Endocrine System; Microbiology	p.387-407; p.561-582
13	May 15	Exam IV ; Ecology	p. 671-687
14	May 22	Populations; Communities & Ecosystems	p.688-702
15	May 29	Biogeochemical cycles; Impact of human activity on biodiversity	p.703-717; p.738-760
16	June 5	Final Exam 9:35-11:35 AM	