

West LA College-Science Division



Bio 3b #3406: FUNDAMENTALS OF BIOLOGY LAB

FALL 2015

Instructor: Dr. Begona de Velasco
E-mail: develab@wlaac.edu (the best way to contact me)
Off hours: Th 8:30-9:00 pm, by email, OR by appointment
Lab: Th 6:45-10:00 pm , MSA-309

COURSE DESCRIPTION: This is a course in general biology designed to fulfill a laboratory science requirement. This lab emphasizes the diverse types of organisms and their anatomy and physiology. Laboratory topics include an introduction to the microscope, study of the cell, study of enzyme activity, a survey of the microorganisms, plants, and animals that comprise the 5 Kingdoms of life, and the anatomic study of the earthworm, grasshopper and fetal pig.

Student Learning outcomes: Upon completion of this course, students should be able to:

1. Measure using the metric system.
2. Manipulate a light microscope and describe its parts.
3. Differentiate the appearance of a prokaryotic & eukaryotic cells when viewed through the microscope
4. Recognize the influence of concentration, temperature and pH on an enzyme activity.
5. Analyze and describe the difference between diffusion and osmosis
6. Identify a simple method to test for sugars, starch and protein.
7. Describe the main type of cell division: mitosis and meiosis
8. Isolate DNA molecules
9. Analyze basic mendelian genetic problems and read familial pedigrees

Material required: Laboratory manual & 3 scantrons (50 questions on a side available at the book store)

GRADING:The grade in this course will be calculated as a percentage of points earned on

- 2 Exams at 50 pts each: 100 pts
- Quizzes-activities: 50 pts

Grade Scale (% at the end of the semester): A=100-90%, B=89-80%, C=79-70%, D=69-60%, F=59-0%

Exams will be given during the semester based on the lab. The exams will be in the format of multiple choice questions, fill-in the blank, matching concepts. There will be **NO** makeup exams; students who miss an exam **will take the final** and the grade of the final exam will be **doubled**.

Quizzes and activities points are tied to several forms of quizzes and other class activities offered through the semester.

CLASS POLICIES

Lab Safety

There will be NO eating or drinking in lab. Students must follow safety instructions and dress appropriately (no loose fitting or hanging clothing, jewelry or hair that could get caught or burned). Students must follow all directions, take proper care of and be respectful to the live animals.

Attendance is mandatory. No opportunity for make-up labs. Class meetings are to clarify and expand on your readings. **All readings have to be done previous to coming to the lab.** If there is anything you do not understand, I want you to feel free to ask questions during lectures as discussions are welcomed (time permitting). You are also encouraged to see me if you need any extra help. Students who are absent for 3 class meetings without informing the instructor with a valid excuse will be dropped.

Class Rules: Please be respectful of both your fellow students and me, your hardworking instructor. Respect includes: **on time attendance**, no laptops for MOVIES, no cell phones, texting or headphones in class.

Religious observances: Please notify the instructor in advance of religious observances that interfere with class attendance.

Students with disabilities: To receive accommodations, students with disabilities must register with Disabled Student Services.

Academic Integrity and plagiarism: Any student caught cheating or plagiarizing will receive an F on the assignment, may fail the class and will be penalized according to the College regulations. See the College Catalog under Academic Integrity for further information. **I will take pictures/videos if needed** during exams.

Tips for Success: Successful students usually have utilized the following strategies;

- Budget 1 hour of study per lab hour. Form study groups.
- Complete and understand **all** the problem/review question/study guide sets.
- Have excellent lab attendance. Ask questions during office hours. Participated in class discussions.

TENTATIVE SCHEDULE

WEEK	DATES	LABORATORY TOPIC	LAB MANUAL SECTION
1	Sept 3	0-Lab Orientation	
2	Sept 10	1-Measurement in Biology	A
3	Sept 17	2-The Microscope & Its Uses	B
4	Sept 24	3-The Cell	D
5	Oct 1	4-Cell Division-8	F
6	Oct 8	5-Identification of Organic Molecules	F, C
7	Oct 15	6-Diffusion, Osmosis	X,E
8	Oct 22	7-Enzymes	CC
9	Oct 29	MIDTERM	
10	Nov 5	8-Classification Viruses, bacteria, Protista, Fungi	G, H, I, J, K
11	Nov 12	9-Kingdom Plant	L
12	Nov 19	10-Vegetative Organs & Repro Angio, Dichotomous Keys	M, N, MM
13	Nov 26	Thanksgiving	
14	Dec 3	11- Animals	O, P, R, S, T
15	Dec 10	12-Fetal Pig	U
	Dec 17	FINAL EXAM (No lab exercise class meetings)	