

Jancy Rickman

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Office in SCI 117

BLC hours: M & W: 1 – 3

T & Th: 9 – 11

Office hours: M & W: 3 – 4:30

T & Th 12:30 – 1:30

Course Description

Bio 10 is a **4 unit** course designed & taught as a non-majors biology course. It is intended to provide a survey of fundamental biological concepts applicable to daily life. For some students, this will be their only exposure to the science of biology; while other students will use Bio 10 as a foundation for further study in biology and its related fields. This course transfers to UC & CSU Gen. Ed area B2, B3.

Class Format - Lab & Lecture

LAB

Biology Learning Center (BLC)

General Hrs: M-Th: 9 am-9 pm, F: 9 am – 3 pm

- Bio 10 labs are a series of videos and corresponding lab activities done in the Biology Learning Center (BLC) with qualified instructors. Worksheets accompany each video and directions for completing each lab activity will guide you through the labs to obtain the information you are expected to learn.
- To get credit for lab you must do your work when a qualified instructor is present. To document your time spent in lab, you will sign into / out of the computer that calculates the number of hours spent per day. **DO NOT FORGET TO SIGN IN AND OUT** every time you do lab work.
- You are solely responsible for completing the assigned lab(s) as listed in the weekly schedule. It is imperative you remain very disciplined & complete all assignments on time. **You must spend a minimum of 4 hours at the same time each week in the BLC with a qualified instructor(s). Their schedule is provided.**
- Upon completion of each lab / video you will take a 15 point quiz testing your knowledge of the material. There are 15 quizzes and two versions of each quiz. This enables you to study and re-take a quiz if you are dissatisfied with your first score. Your highest score for each lab quiz counts towards your final grade.
- To take a quiz, you must show your LMC ID card along with the required information on your scantron already filled out (your name, your instructor's name, quiz number, date, etc.)
- **Each lecture exam covers a set of lectures and corresponding labs. The weekly schedule lists the days when labs and lab quizzes must be done. There are no exceptions so pay attention to all dates.**
- Your quiz & exam scores will be kept in the BLC on an official grade card. I will provide you with an unofficial grade card that I strongly suggest you use to track your own scores.

LECTURE

T & TH 11:00 – 12:20 in Sci 136

Lectures will cover a series of topics outlined in the schedule and that are reinforced in lab. You are expected to attend lecture since I do not supply lecture notes outside of the lecture setting. As well, the lecture exams are administered during the lecture period.

All Required Materials for Bio 10 available in LMC Bookstore

1. **Text** - What is Life? A Guide to Biology with Physiology, by Jay Phelan, 2nd ed.
2. **Bio 10 Lab Manual** – this contains the worksheets and other information needed to do lab work
3. **Headphones** – you need to supply your own – LMC's bookstore carries them
4. Packets of 15 point **scantron forms**

Useful Resources:

1. Website by Mark Lewis: <http://sites.google.com/site/lmcbiology10/Home>
2. Website by book publisher Phelan: www.whfreeman.com/phelan1e
3. Center for Academic Support: **Free tutoring**

Grading Policy

Grades are based on points earned in the following way. Total points = 520.

- a) Three lecture exams @100 pts each = 300 pts
- b) Final (20% comprehensive) = 100 pts
- c) 15 lab quizzes = 100 pts

There are 225 possible points (15 quizzes x 15 pts each). However, a percent of all your quizzes will be translated into a possible 100 points. Example $175 / 225 = 77\%$ translated = 77 points towards your final grade.

- d) Individual Student Presentations = 10 pts. Each student will find a current article related to DNA, proteins and/or heredity of traits then present their summary of the article to me in the BLC, as they understood it, using their knowledge from lecture and lab
- e) Scientific method lab report = 10 pts. Due day of first midterm

NOTE:

- There are **NO** makeup exams!! **No exceptions!**
- Assume I use the standard percent (%) scale: 90 - 100 = A, 80 - 89 = B, 70 - 79 = C, 60 - 69 = D.
- Unauthorized collaboration is unacceptable. You must do your own work. Plagiarism results in NO CREDIT.

Student Learning Outcomes / Objectives

1. Read critically to distinguish a scientific hypothesis from an unscientific idea. Use the scientific method to carry out and write results and conclusions from simple experiments.
2. Relate chemical principles to biological structures and functions.
3. Describe the basic relationship between DNA, proteins, and the transmission and evolution of hereditary traits and critically apply this understanding to real world situations. Communicate orally and/or in writing current ethical or biomedical issues related to this topic.
4. Communicate orally and/or in writing aspects of the interdependence of all life on Earth, and particularly the ethical issues that arise from the dependence of all human societies and cultures on other species and on physical resources in nature.

THE BASIC DOs & DON'Ts TO GET US THROUGH BIO 10

Do.....

1. Do be on time for lecture. I start class on time & end on time. You need to as well.
2. Familiarize yourself with the assigned material **prior** to class. You will gain a far better understanding of both lecture & lab, as well as enjoy them more, if you are prepared.
3. Every student is entirely responsible for completing all labs within the scheduled time period. **Lab material is NOT available indefinitely** so be attentive to time & scheduling.
4. Clean Up!!!! It is essential that each of you take full responsibility for your "mess". At the end of your lab session, please be sure you have done your part in leaving the BLC ready to use by other students.
5. Keep track of your quiz & exam scores (keep your exams) so YOU always know how YOU are doing in the class. A grade card is kept for you in the BLC with current scores AND you have one as well.
6. If you are struggling with the class material, don't wait to let me know. Come see me early, I will do all I can to help.
7. **Course repeatability** – You are only allowed to attempt a course a total of 3 times, assuming you received a substandard grade (D, F or W) on your first and/ or second attempt. However, on the third attempt you would need to prove extenuating circumstances for permission to enroll.
8. **IF YOU NEED TO DROP** the course, **THE RESPONSIBILITY IS ON YOU**. The college drop dates are:
With no W = September 6, 2013 **With a W = November 22, 2013**
9. Students with documented learning & /or physical disabilities may receive reasonable classroom &/or teaching accommodations. Please make these arrangements with the instructor at the beginning of the semester or as soon as possible after documentation has been determined. Last minute requests may not be determined reasonable. For further assistance please contact DSP&S at ext. 3353.

Don't.....

1. For lectures, DON'T forget to turn off your cell phones, pagers, other disturbing devices ALONG WITH your urge to socialize. Talking over you is impossible & not tolerated.
2. During exams, absolutely NO electronic devices are allowed to be in your possession.
3. Although group work is highly effective, **DON'T engage in unauthorized collaboration** on tests, lab reports or any other assignments. No credit is given for unauthorized work.

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~ ~ **WELCOME** ~ ~

!! GOOD LUCK !!

**** ENJOY ****
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Dates (T & Th)	Lecture Topic	Phelan Text Reading	Lab Materials Videos & Activities
Aug 20 & 22	Intro to class Characteristics of Life	Chp 1.1 – 1.2 & pgs 778 - 779	Introduction to BLC #1 Characteristics of Life
Aug 27 & 29	What is Science? Basic Chemistry	Chp 1 Chp 2.1 – 2.4	#2 Microscope & Metrics #3 Chemistry
Sept 3 & 5	Molecules of Life & Macromolecules	Chp 2.5 – 2.6 Chp 4.1 – 4.4 for ATP	#3 Chemistry cont.
Sept 10 & 12	Macromolecules con't. Cell Membrane Transport	Chp 2.7 – 2.21 Chp 3.1 – 3.11	#4 Molecular motion, diffusion, & osmosis
Sept 17 & 19	MIDTERM 1 (Covers →) Cell Structure / Function	1st set of lectures & labs Chp 3.13 – 3.21	Labs 1 - 4 must be done by Mon. 9/16 #5 Cell Theory & Structure
Sept 24 & 26	Plant Structure & Photosynthesis	Chp 17.4 – 17.7 Chp 4.1 – 4.11	Use: www.whfreeman.com/phelan1e #6 Photosynthesis
Oct 1 & 3	Photosynthesis cont. Cellular Respiration	<i>Continued</i> Chp 4.12 – 4.17	Use: www.whfreeman.com/phelan1e #7 Cellular Respiration
Oct 8 & 10	Cellular Respiration cont. Animal systems: Digestive & Respiratory	<i>Continued</i> Chp 22.1– 22.3 & chart pg 862 Chp 21 (chart 824)	Review 5, 6, & 7 with Phelan website
Oct 15 & 17	Respiratory & Circulatory MIDTERM 2 (Covers→)	Chp 21.1 – 21.6 2nd set of lectures & labs	Labs 5 - 7 must be done by Wed. 10/16
Oct 22 & 24	Gene Expression & Protein synthesis	Chp 5.1 – 5.10 <i>Continued</i>	# 9 Protein Synthesis
Oct 29 & 31	Cell cycle / DNA Replication Mitosis / Cancer	Chp. 6.1 – 6.5 Chp 6.6 – 6.9	#8 Cell Cycle & DNA structure/function #10 Mitosis
Nov 5 & 7	Meiosis / Mishaps Sexual Reproduction	Chp 6.10 – 6.15 / 6.17 – 6.18 <i>Continued</i>	#11 Meiosis
Nov 12 & 14	Finish topics MIDTERM 3 (Covers→)	3rd set of lectures & labs	Labs 8-11 must be done by Wed. 11/13 #12 Genetics
Nov 19 & 21	Genetics Genetics	Chp 7 - All Chp 7 cont.	#12 Genetics #13 Evolution
Nov 26 & 28	Adaptations THANKSGIVING	Chp 8 All	#13 Evolution cont. Review with Phelan website
Dec 3 & 5	Evolution Ecology	Chp 8 cont. Chp 15 - All	#14 Ecology
Dec 10 & 12	Environmental Issues No Class / Finals week begins	Chp 16- All	#15 Environmental Issues
Tuesday Dec 17	Final Exam @ 10:00 am	20% comprehensive 80% 4th set of lectures & labs	Labs 12 - 15 must be done by Friday, Dec. 13th

****The Phelan website is very helpful for many of these topics but
is the only video required for Photosynthesis and Cellular Respiration.****

Assignment Due Dates

Scientific Lab report –Tues, Sept 17

Student Presentation- No later than Tues, Dec 3

Important College dates:

Last day to drop w/out a "W": Sept. 6, 2013

Last day to drop with a "W": Nov. 22, 2013