

## Biology 11: Concepts of Biology

Section 18153

Sierra College

Lecture: Monday and Wednesday 12:30-1:50pm

Lab: Monday and Wednesday 2-3:20pm



### Contact Information:

Keely Carroll

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Office Location: V-322A

Office Hours:

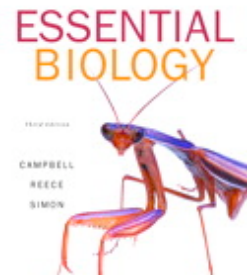
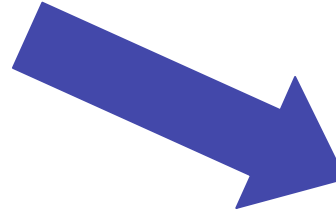
Monday and Wednesday 11-12pm

Tuesday and Thursday 10-11am

Also By Appointment

### What you will need for this class:

Textbook: Campbell, Reece, Simon. 2007. Essential Biology. 3<sup>rd</sup> Edition.  
Pearson Publishing.



Lab Manual: In Progress, You will be provided with copies of the labs during the course of the semester.

**Course Description:**

An introduction to the major concepts of biology as illustrated in plant and animal groups. Covers cell biology, heredity and the nature of genes, evolution, diversity of life and principles of ecology. Not open to those who have taken Bio. Sci. 1 or 10 or 56.

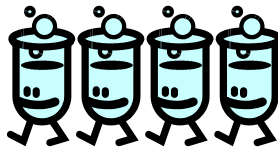
Make sure you are in the right class, don't make the mistake of taking the wrong one. See your counselor.

**So what will we learn in this class?**

- The main steps of the scientific method and the differences between a hypothesis and a theory.
- Recognize the levels of organization of life from the molecular level to the ecosystem level.
- How to describe the characteristics of the main organic compounds and know the roles of organic molecules in living organisms.
- The cell theory.
- The parts of a cell.
- The processes of photosynthesis and respiration and their roles in the ecosystem.
- Cellular reproduction (you used to be a single cell!)
- Mendelian genetics and heredity
- The structure of DNA and its role in living organisms.
- How to go from DNA to protein.
- Evolutionary theory and how species arise.
- The early origins of life on earth.
- How ecosystems function and how organisms interact with each other and the environment.
- How humans have an effect on the earth.

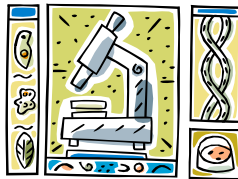
## Blackboard:

This class is web enhanced which means that there is a website for this class. To access the Blackboard site go to the campus website [www.sierracollege.edu](http://www.sierracollege.edu), scroll down to the bottom of the page and click on the Blackboard link. Clicking on the link will take you to the Blackboard login page. Your login is the same as your MySierra account login and your password will be Student (capital S) if you have never logged in before. If you have used Blackboard before, then your password should be the same as last semester. On the Blackboard site you will find lecture note handouts, the Powerpoint lectures, a running point total for the class and other useful material. Please note that I am not responsible for any technical problems that you encounter when using Blackboard or for when Blackboard goes down!!! If you are having problems, contact me and I will try to help.



## How to prepare for class:

Before you come to class each day be sure to read the chapters for that day's topic. (The topics are listed in the schedule). The outlines on Blackboard will reduce the amount of notes that you will need to take each day and reviewing the notes prior to coming to class will help you to better understand the topic. I also recommend reviewing your notes nightly. Studies have shown that retention level increases to as high as 90% if you review nightly. Do not wait to cram right before the exam!!!



## Class Attendance:

You are all grown-ups and accountable for your own actions. Therefore, I will not take away points for not being in class. Be aware however that the grade you receive in class will most likely be a reflection of your attendance and attention to this class.



## Lecture Assignments

### One Minute Papers:

Periodically in class I will ask you to write a one minute paper on a topic just covered in class. These papers are just what they sound like. You will be given a topic to write on for one minute and you can use your notes to write the paper. These will occur periodically during the semester. There are a total of 100 points available for the one minute papers. Each paper will be worth a percentage of the total points possible. So if we do two, each one will be worth 50 points; if we do 10, then each one will be worth 10 points.

**100 Points Possible**

### Critical Thinking:

You will need to complete a total of 13 Critical Thinking Assignments for the semester. Topics will be provided. For each assignment you will need to critically analyze the problem and write a minimum one-page assessment of the situation and your opinion on the subject. It is important that your paper reflect a critical assessment of the situation and demonstrate real thought. One critical thinking paper is due each week by the Sunday of that week by midnight. These may be emailed to me (see rules on emailing) or turned in during class. You may drop a total of 2 of these assignments for the semester.

**110 Points Possible**

### Exams:

The exams for this class will all be take home exams. They will require you to do some critical thinking. They will consist of multiple choice, essay, fill-in the blank, true/false and diagram labeling. There will be a total of 4 exams each worth 75 points each. There are **NO** make-ups for the exams but you may drop one exam score for the semester. Exams must be completed individually; no collaborative work allowed on exams. (Note that if you get caught cheating on an exam, you may not drop that score; all exams will be checked for plagiarism). You will need to provide a scantron 882-ES for each exam, which has 50 questions on the front and the back for each exam. You will have one week to complete each exam.

**225 Points Possible**

### Participation:

There are a total of 50 points possible for participation in this class. Participation includes being part of class discussion, interacting with other students during one-on-one assignments, being part of class activities, staying in class for the entire period, silencing your cell phone and helping out your fellow students.

**50 Points Possible**

**485 Points Possible  
(Lecture)**

## Lab Assignments

### Lab Reports:

For lab exercises will be presented as weekly activities. I will be handing out copies of the lab exercises at least two weeks in advance. Copies of the labs will also be available on the Blackboard site. You are required to read the material in the lab exercises prior to meeting for the lab. Before the lab you will need to type up a “pre-lab” of what you will be doing in lab that day. The “pre-lab” must be typed and approximately a page long. The “pre-lab” must be turned into me by 5 minutes after the lab has begun, after that they will not be accepted. No handwritten pre-labs will **EVER** be accepted, even if your printer runs out of ink and aliens abduct your roommate, so don’t ask! The “pre-lab” will be initialed by me and returned to you before you leave lab. The week after the lab is completed you will hand into me your “pre-lab” plus your completed lab from the lab manual. You may not turn in a lab if you were not in class to complete the work. Each lab is worth 10 points each and you may drop three for the semester.

**130 Points Possible**

### Lab Quizzes:

There will be a total of 7 quizzes in lab and they will be given approximately every other week. These quizzes will cover content from both lecture and lab. Each quiz is worth 20 points each and you may drop one for the semester. There are no make-ups for the quizzes.

**120 Points Possible**

**250 Points Possible  
(Lab)**

## Extra Credit

### Extra Credit:

There is a total of 15 points available for extra credit. To get extra credit, you will need to access Blackboard three times during the course of the semester and calculate your grade for the class. You then need to email me your current grade in the class by the dates listed in the schedule. You can receive 5 points per email and can send in three emails for a total of 15 points.

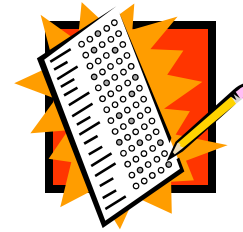
**15 Points Possible**

**15 Points Possible  
(Extra Credit)**

**Overall there are a total of 735 Points available for this class. Grading will be on a straight 100-90, 89-80, 79-70% scale.**

### Academic Dishonesty:

Any act of cheating, including, but not limited to, looking at someone else's exam during a test, plagiarism, using notes during an exam, changing an answer after a test has been graded and handed back and presenting it as improperly graded, will result in a 0 for that exam/assessment and the incident will be reported. Any repeated act of cheating may lead to dismissal from the class and/or college. It is the student's responsibility to know the campus cheating policy listed as the Sierra College Board Policy 5515 which can be found at <http://www.sierracollege.edu/AboutUs/board/policies/pdfs/Chapter%20Five/Board%20Policy%205515.pdf> . (It can be found at the end of this syllabus). You should also pick up a copy of "Student Rights and Responsibilities" from the Campus Life Office located next to the bookstore.



### Drop Policy:

Once you are enrolled in this class, you will receive the letter grade earned unless **you** formally drop the class. The last possible day to drop this class is September 6<sup>th</sup> and the last day to withdraw is November 4<sup>th</sup>.



### Email Policy:

You are welcome to email critical thinking assignments to me but know that I am not responsible for lost emails. If you send me an email, send one to yourself as well, that way if I do not receive the original email then you can forward me a date and time stamped copy of the email. You are also responsible for keeping archives of your sent files during the course of the semester. My email box on campus fills quickly and there is not enough space to keep all of the emails that I receive. If you are sending me an assignment, you will need to put "Your Name: biology 11 critical thinking assignment" in the subject heading. I only look at the assignments once per week and when I see an email subject like this I will place it into an email file for student assignments. All assignments must be contained within the text of the email or be attached as an .rtf document. **NEVER** use the digital dropbox on Blackboard. If you just want to email me a question, please include "Your Name: biology 11 question" in the subject heading, that way I know to open it immediately.



**How to succeed in this class:**

BE HERE! That is the number one thing. Also, do not wait until the last minute to cram for an exam (see above). Pick a place to study and only study there, this will help keep you on task. Get the phone number of at least one other person in class and meet with them at least once a week to go over your notes to ensure that they are complete. Get to know your fellow students and form study groups. If you have questions or are having difficulty, see me, that is what I am here for. I can't help you raise your grade if you wait until the last minute to see me. Call me, email me, or make an appointment to meet.

Remember, if a certain study technique isn't working for you change it!!! Come by and see me as soon as you are having trouble in class!

### Tentative Schedule

<b>Week of:</b>	<b>Topic</b>	<b>Chapter</b>	<b>Lab Topic (* denotes quiz day)</b>
Aug 25 <sup>th</sup>	Introduction to Biology Scientific Method	1	Introduction Scientific Method
Sept 1 <sup>st</sup>	(Monday Holiday) Essential Chemistry	2	Molecules of Life
Sept 8 <sup>th</sup>	Molecules of Life Cells	3/4	Monday: Finish Molecules of Life Lab Wednesday Lab: Video/Hike
Sept 15 <sup>th</sup>	Energy <b>Exam Handed Out Monday</b>	5	Cells (*)
Sept 22 <sup>nd</sup>	Photosynthesis Respiration <b>Exam Due Monday</b>	7	Energy
Sept 29 <sup>th</sup>	Respiration Fermentation	6	Photosynthesis (*)
Oct 6 <sup>th</sup>	Mitosis Meiosis <b>Exam Handed Out Monday</b>	8	Respiration
Oct 13 <sup>th</sup>	Mitosis/Meiosis Genetics <b>Exam Due Monday</b>	8	Mitosis/Meiosis (*)
Oct 20 <sup>th</sup>	Genetics	9	Genetics
Oct 27 <sup>th</sup>	DNA Structure and Function Protein Synthesis	10	DNA Structure and Replication (*)
Nov 3 <sup>rd</sup>	Protein Synthesis Gene Regulation Evolution <b>Exam Handed Out Wednesday</b>	11/13	Evolution
Nov 10 <sup>th</sup>	(No Class Monday) Evolution <b>Exam Due Wednesday</b>	13	(Monday Holiday) Microbes (*)
Nov 17 <sup>th</sup>	Origin and Diversity of Life Microbes	14/15/16	Monday: Finish Microbes Lab Wednesday Lab: Plants
Nov 24 <sup>th</sup>	Microbes Plants	16	Monday Lab: Plants Wednesday Lab: No Lab
Dec 1 <sup>st</sup>	Plants Animals Ecology <b>Exam Handed Out Wednesday</b>	17	Animals (*)
Dec 8 <sup>th</sup>	Ecology <b>Exam Due Wednesday</b>	18/19	Ecology (*)



**Now that you are a student here there are probably some things that you should know about your campus!!!**

- Love your library. If you haven't already taken a tour of our library, do it this semester. Having a decent knowledge of your library will reduce the time you will spend researching your next paper! (More time to play X-box). Tours of the library can be found at the library website at <http://lrc.sierracollege.edu/library/dropin.html>. Don't be afraid to ask a librarian for help; that's what they are there for!
- There is a facility on campus that is dedicated to extracurricular activities on campus. The Campus Life office is located next to the bookstore, inside you will find comfy couches and resources that can help you develop leadership skills. The Campus Life office is also where the student senate meets. Check out the student senate website at <http://www.sierracollege.edu/StudentServices/campusLifeASSC/senate.html> to get involve with decisions that can affect you at this campus. The Campus Life office can also help you to resolve disputes between you and your instructor. After you have already tried to work things out with the instructor and the Dean, Tim Haenney can help you try to work it out. You can make an appointment to meet with Tim at 916-781-0499.
- We have a great tutor center on campus located in LRC 402A. They have both tutoring by appointment and drop-in tutoring. Tutoring appointments must be set up in person at the tutoring center and last as long as 1 hour. Drop-in tutoring is available any time as long as a tutor is available. If there is not a tutor available for biology 10 or 11, you can use tutors for bio 1. Tutors are a great way of hearing the material from another perspective.
- Do you have trouble taking tests? If you experience anxiety during tests, have difficulty processing information or any other problem taking exams, consider a visit to DSP&S to be tested for learning disabilities. Many students feel that acknowledging a learning disability somehow makes them less of a person, but getting tested for a learning disability can get you more test time, testing in a private location or even assistance with tests. If you have a situation such as this and don't get it checked out, you might find the rest of your college days a struggle!!! Check out <http://www.sierracollege.edu/StudentServices/dsps/services.html> for more information.
- We even have a health center on campus that is for students only!!! They offer services from immunizations, illness diagnosis and treatment, prescriptions and laboratory tests. They are located in Winstead L-183 and their phone number is 916-781-0517.

# **SIERRA COLLEGE BOARD POLICY No. 5515**

## **Honesty in Academic Work**

Date Adopted: 7/12/1994

Date Revised: 1/13/2004

Date Reviewed: 1/13/2004

References: Education Code Section 76224

Success in college, as in other aspects of life, demands absolute honesty at all times. Sierra College expects that students, as well as faculty, will observe the principles of ethical conduct in their treatment of fellow members of the academic community and in their accomplishment of academic work. Students are responsible for familiarizing themselves with these principles as they pertain to each course in which they enroll. When completing assignments, students should be careful to follow the principles of ethical conduct. Students who are uncertain about the ethics involved in particular courses or assignments should make it a point to talk with instructors. Proven misconduct or violation of these principles, will be disciplined as set forth in this policy.

The instructor has absolute authority over issuing the final course grade (Education Code, Section 76224).

It is important to remember that the principles of academic honesty in no way restrict free inquiry and the open exchange of diverse, and sometimes unpopular, ideas. These the college encourages, for they are vital to learning and the pursuit of reason and truth.

Students who fail to comply with this policy will be subject to disciplinary action as described in Administrative Procedure 5515.

See Administrative Procedures 5500 and 5515, and Board Policies 4220 and 5500.

## **CLASSROOM EMERGENCY PROCEDURES**

Faculty members are responsible for the safety and well-being of students during scheduled instructional activities. It is expected that each semester, faculty will notify their students of Sierra College emergency procedures both verbally and in the course syllabus.

If an emergency occurs in the immediate area, faculty should contact Police Services at ext. 1111 from any on-campus phone or emergency phone or call (916) 624-3333 (and press 1 - 1111) from an outside line. In the event of a campus emergency, lines of authority may change. Faculty will be expected to follow the direction of those who have been placed in charge of specific functions relating to the emergency. Faculty will be contacted as appropriate regarding the situation and given instructions on further actions needed.

### **IMPORTANCE OF ATTENDANCE DOCUMENTATION**

In the event of an emergency, it is vital to be able to account for the whereabouts of all students, faculty, and staff. Faculty who take attendance should keep rosters with them and turn them over to the appropriate authority upon demand. Faculty who do not regularly take attendance should work with students to develop a buddy system or some other method of accounting for all of the students in the section.

### **FIRST CLASS MEETING**

- 1) Review emergency exits for the room and building.
- 2) Review location of nearest emergency phone.
- 3) Identify building evacuation gathering point(s).
- 4) Notify students that if more than one building is being evacuated the primary gathering point is: ROCKLIN - THEATER, with the GYM as the backup location if the theatre is not available.  
NCC – CAFETERIA, with M101 as the backup location if the cafeteria is not available  
GATEWAY, TRUCKEE – main parking lot
- 5) Develop a “buddy” system or other method for attendance accounting.
- 6) Review the actions to be taken in the event of an evacuation.
- 7) Review the actions to be taken in the event of a lockdown or shelter in place.
- 8) Notify students that backpacks and other personal belongings are to be kept with them at all times. Do not disturb a suspicious object. Backpacks left unattended pose a risk and may be confiscated or destroyed.

### **IN THE EVENT OF A COMMAND TO EVACUATE:**

- 1) Instruct students to gather personal belongings.
- 2) Proceed with class to the established gathering point.
- 3) Report to the emergency staff assigned to supervise the gathering point.
- 4) Wait with class at the gathering point until given further instructions by the appropriate emergency personnel.

### **IN THE EVENT OF A COMMAND TO “LOCK DOWN”:**

- 1) Close all doors and lock, if possible.
- 2) Close all blinds and drapes.
- 3) Turn off any unnecessary equipment.
- 4) Keep everyone away from all windows.
- 5) Instruct students to remain as quiet as possible.
- 6) Do not allow anyone to leave until notified by emergency personnel.
- 7) Ask students to turn cell phones off to free up frequencies for emergency personnel.

### **IN THE EVENT OF A COMMAND TO CREATE “SHELTER IN PLACE”:**

Follow all steps identified for lock down. Additionally, ensure that all ventilation is either closed or shut down.