Biology 1010: Principles of Biology (Spring 2010)

I. General Information

Professor:	Dr. Michael T. Stevens
Office:	N273 (Naraghi Hall of Science)
Office Hours:	MTR 11:00 a.m. – 12:00 p.m., and by appointment
Phone:	667-3603
Email:	mstevens@biology.csustan.edu
Website:	http://arnica.csustan.edu/stevens
Class Time/Place:	TR 12:55 p.m. – 2:22 p.m. in P167 (Demergasso-Bava Hall)
CLS NBR & SEC:	20092, 002
Text:	*Basic Concepts and Applications in Biology*, 7th ed. (custom), by Starr, Evers, & Starr

II. Course Description

Welcome to Biology! This course will focus on cellular and molecular levels of organization, genetics, evolution, and ecology. Since biology is the study of life, you will find this course to be especially relevant.

III. Learning Objectives

1. Provide an overview of basic knowledge, principles, methodologies, theories, and perspectives in biology.
2. Offer opportunities to work in groups with other students to practice effective communication about concepts and issues in biology.
3. Provide a broad understanding and appreciation of biology and encourage continuous inquiry and lifelong learning.
4. Provide the framework to critically evaluate and use information from various scientific sources to answer questions relevant to biology.
5. Understand the relationships between the fields of biology, chemistry, physics, geology and other sciences.
6. Appreciate the interdependence of humans, natural ecosystems, and the diversity of life on earth.
7. Develop more informed and responsible citizens with respect to issues concerning the living world.

IV. Course Requirements

This course requires your involvement both inside and outside of classes. Students are expected to attend class and to actively participate in the learning process. Being present for in-class activities is an excellent way to learn the material and improve your grade. During lectures, students should take careful notes and review them frequently. The textbook is an important supplemental resource.

V. Grading

Exams (400 points)
There will be a total of four exams including one comprehensive final. Each exam is worth 100 points. Exams may consist of multiple choice, true/false, matching, and diagrams. Always bring a #2 pencil and Scantron Form 882-E on exam day.

Students should mark their answers on the Scantron form and also circle their choice on their exam. Only students who use this marking system will be able to get credit for correctly answered questions that the Scantron machine misinterprets. Scantrons are generally accurate, but sometimes they make mistakes especially in cases of incomplete erasures. Students have until the next class period, after the exam is returned, to get credit for Scantron mistakes.

On exam day, please plan ahead and arrive early. Students who arrive late will have less time to complete their exam and risk not being able to take the exam at all. Students who arrive after the first exam of the day has been turned in will not be allowed to take the exam. During exams, cell phones must be turned off. No food, drinks, or headphones are allowed during the exam periods. Exams 1-3 will start at 12:55 p.m. in P167. The final exam will be on Tuesday, June 1st at 11:15 a.m. in P167.

The final exam must be taken during the scheduled time. Exams 1-3 should also be taken as scheduled, however, if a student has a valid reason s/he cannot take an exam at the appointed time, the student may be able to take an exam early. Requests for early exams must be submitted in writing to the instructor at least one week prior to the scheduled exam. No makeup exams will be given after an exam has been returned to the class.

In-class Assignments (~100 points)
There will be various in-class group assignments throughout the semester. Each assignment will be worth 10 points. One day's assignments will not total more than 20 points. No makeup assignments will be given, but students can drop their lowest assignment score. These assignments are important because they provide opportunities for cooperative learning and give time for you to discuss new concepts and terminology with your peers. In addition to helping you learn new material and do better on tests, the in-class assignments represent a substantial portion (~20%) of your final grade. Because of the weight given to these assignments, a student who gets an A on all of the tests but only comes to class on exam days could end up with a grade as low as a C. On the positive side, a student averaging a C on their tests can earn a B if they are present for all in-class group assignments. Students who are present generally do very well on in-class assignments.

Grade Calculations
Grades will be based on the percentage of points earned from exams and assignments.

A	90-100%	B	80-89%	C	70-79%	D	60-69%
F	0-59%						

If you take the credit/no credit option:

CR	70-100%	NC	0-69%

VI. Credit/No Credit and Adding/Dropping

The last day to apply for the CR/NC option is Thursday, April 29th. To do so you must contact me in person and have your yellow form filled out and ready for me to sign. It is your responsibility to turn this form in to Admissions and Records. I will follow the grading option indicated on the final grade sheet supplied by Admissions and Records. Consult with your advisor before making your decision. Once you have selected the CR/NC option you cannot opt for a grade. The last day to add or drop the class is Monday, March 15th.

VII. Learning Environment and Citizenship

Student Conduct
In such a large class it is essential that students maintain an environment conducive to learning and avoid distracting others. Please set your cell phones to vibrate and refrain from texting. Please don't engage in side conversations. If you have something interesting or relevant to say, please share it with the class. Only bring your laptop to class if you plan to use it in a way that helps both you and your neighbors stay focused on biology. During in-class group assignments each member of a group should fully participate and contribute. In-class group assignments are important opportunities for learning.

Academic Dishonesty
There is a zero tolerance policy for cheating. Any academic dishonesty will result in an F in the class and the matter will be turned over to the appropriate student disciplinary committee. Submitting an in-class assignment for a student who is not present is cheating.

Evolution
Since evolution is the unifying theme of biology, the discussion of evolution is central to this course. Students should not feel threatened by evolution regardless of their personal beliefs. Please remember that your beliefs are but one of dozens. In class we will discuss scientific evidence for evolution. If you would like to talk about evolution in light of your personal beliefs, please set up a time to talk me outside of class.

VIII. Study Skills

Attending class is the best way to succeed in Biology 1010. To gain the most from class time, you should read relevant text material beforehand and come prepared with questions. During lectures be attentive and interactive, take good notes, and fully participate in in-class group assignments.

Outside of class I recommend taking time after each class to review your notes and textbook. Learning takes time, is incremental, and is sometimes difficult to do all in one session before an exam. Form a study group that meets regularly so you can talk about new concepts and review terminology with your colleagues. When studying for exams, focus primarily on lecture notes and concepts learned in in-class activities. Pay particular attention to diagrams and lists. Use your text's glossary and index.

If you need extra help or clarifications, please ask questions during lecture, talk to me before or after class, contact me via email, or visit during office hours. I want you to do well in Biology.

IX. Schedule (subject to change)

Date	Chapter	Topic
T Feb 16	1	Invitation to Biology
R Feb 18	2	Life's Chemical Basis
T Feb 23	3	Molecules of Life
R Feb 25	4	Cell Structure and Function
T Mar 2	5	Metabolism
R Mar 4	6	Where It Starts—Photosynthesis
T Mar 9	7	How Cells Release Chemical Energy
R Mar 11		EXAM 1
T Mar 16	8	How Cells Reproduce
R Mar 18	9	Meiosis and Sexual Reproduction
T Mar 23		NO CLASS (Furlough)
R Mar 25		NO CLASS (Furlough)
T Mar 30	10	Observing Patterns in Inherited Traits
R Apr 1	11	Chromosomes and Human Inheritance
T Apr 6		NO CLASS (Spring Break)
R Apr 8		NO CLASS (Spring Break)
T Apri 13	12	DNA Structure and Function
R Apr 15	13, 15	DNA to Proteins and Manipulating Genomes
T Apr 20		EXAM 2
R Apr 22	16	Evidence of Evolution
T Apr 27	16, 17	Evolution
R Apr 29	17	Processes of Evolution
T May 4	18	Life's Origin and Early Evolution
R May 6	26	Population Ecology
T May 11	27	Community Structure and Biodiversity
R May 13	28	Ecosystems
T May 18	29	The Biosphere
R May 20		EXAM 3
T Jun 1		FINAL EXAM at 11:15 a.m.