BIOL 1020 World of Biology Lab (Tuesday 11am-1:50 pm) Fall 2011

I. General Information:

Professor: Mariel Zare
Office: N 251

Credits: 1 unit
Lab Room: N223
Office Hrs: TBA

Email: mzare@csustan.edu

II. **Lab Text:** *World of Biology: Biology 1020*, 4th Edition, by Stevens et al (2009). Always bring to class. The text from your lecture class will also be helpful for all labs.

III. Student Learning Goals

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

IV. The Course

"*World of Biology*" *4th edition*, is designed to provide you with laboratory and field experience in various areas of biological science. We will explore many of the topics that are covered in BIOL 1010: Principles of Biology, although it should be noted that this lab course is graded separately.

Grading: Grades will be based on laboratory write-ups, quizzes, an optional final, and participation in lab. No other points will be available and scores will not be "curved" in any way. **Completed write-ups are due at the beginning of the next laboratory session** (no exceptions). I will grade only five (5) and you will not be told in advance which ones I will grade. Thus, the best strategy is to complete and turn in all write-ups (these will also help you succeed on lab quizzes and the comprehensive final should you choose to take the latter). Write-ups will be graded based on completing all the questions, data collection, and graphs/diagrams requested. Late write-ups will not be accepted. You will work in groups of two to four, however, each student must turn in his/her own write-up for each lab; *photocopies will not be accepted*. Do not simply write the same answers as your lab partner (this will cost you points). Instead, summarize your findings in succinct terms and use your own wording. Science is not a spectator's sport and active participation is required to do the hands-on exercises. This also includes doing your own work, proper classroom demeanor, proper use and care of equipment and materials, and following health and safety regulations.

Grade	Points
Ten (10) quizzes @ 10 pts each, lowest one will be dropped	90
Five (5) write-ups @ 10 pts each	50
Optional comprehensive final	30
Total	140 or 170

A = 100-90%, B = 89-80%, C = 79-70%, D = 69-60%, F <60%, CR > 69%, NC < 70%. No fractional grades will be awarded.

Grading Options: February 23 (census date) is the last day you may change your grading option. No exceptions. To do so you must have your instructor sign a yellow add/drop form. It is your responsibility to turn this form in to Admissions and Records. Your instructor will strictly follow the grading option indicated on the final grade sheet supplied by Admissions and Records. Consult with your advisor before making your decision. Grades will not be changed once they have been submitted.

Executive Order 1037 (effective August 2009) allows students to only repeat a course twice and in which they have earned less than a C grade. Students are only allowed to replace the first 16 units they repeat; those reaching the 16 unit limit may repeat an additional 12 units, but the resulting grade is averaged with all other grades.

V. Laboratory Policies:

World of Biology is a laboratory course and as such requires your active participation. It will be impossible to pass this course without regular attendance. As per university regulations, students with excessive absences or tardiness will be dropped from the lab. Because the lab setup changes from week to week, it is not possible to make up missed labs. **Unexcused absences will result in no points for attendance and lab write-ups, and makeup quizzes will not be available (this includes scheduling other appointments during lab time)**. You can drop your lowest quiz or one that has been missed. **Please turn off cell phones, blackberries, pagers, and beepers upon coming to class**. Allow at least 1 week for quizzes and write-ups to be graded and returned.

Quizzes will begin promptly at 11:00 am. If you are late then you will have less time (or none at all) to complete the quiz. If you arrive after the quiz, there will be no make-up. I have a zero tolerance for cheating. Anyone caught cheating on a quiz or the final will receive an F for the class and the matter will be turned over to the appropriate student disciplinary committee. Submitting write-ups for another student is also cheating. The final is optional. It will be comprehensive, stressing questions from previous quizzes and laboratory write-ups.

For most of the laboratories, you will work in groups of two or four students. However, **each of you will hand in your own write-up**. **Write-ups are due at the beginning of the next laboratory period** and will be graded based on completing all the questions, data collection, and graphs/diagrams requested.

Laboratory Schedule†

Week	Date	Laboratory
1	2/2	Attendance, Give Out Syllabus, Safety Lecture, Critical Thinking DVD
2	2/9	Nature of Scientific Inquiry (pp. 1-9)
3	2/16	Cells, Microscopes & Measurements (pp. 11-25)*
4	2/23	Transport (pp. 27-37)*
5	3/2	Metabolism (pp. 39-45)*
6	3/9	Cell Cycle & Mitosis (pp. 47-53)*
7	3/16	Genetics (pp. 55-70)*
8	3/23	**Spring Break, No Labs**
9	3/30	**Cesar Chavez Day (31 March), No Labs**
10	4/6	Plant Biology (pp. 81-93)*
11	4/13	Animal Adaptations (pp. 95-105)*
12	4/20	Evolution** (pp. 71-79)*
13	4/27	Population Parameters (pp. 107-120)*
14	5/4	Ecology (pp. 121-132)*
15	5/11	Last write-up due, Optional final

†The above schedule and procedures in this course are subject to change in the event of extenuating circumstances.
*Quiz over previous week's lab given at start of lab.
**Dress for outdoors and bring calculator

VI. Recording Policy:

Audio or video recording of classes (tape and digital format) is not permitted under any circumstances. If you do not intend to comply with this policy, please discuss this with the instructor or take another class. An exception is made for students registered with Disability Resource Services, who are approved for this accommodation. In such exceptions, DRS students will be asked to sign a "Recording Agreement" which disallows them from sharing recordings with other individuals unless approved by the DRS program.