Course Syllabus

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Office Hours: Monday 11-12:30, or by appointment.

Text: *World of Biology 1020 Laboratory Workbook, 5th ed. by Stevens and Fleming. (2012).* Always bring this text to lab each week. Note also that the lecture textbook (from BIO 1010) will also be useful for labs.

Course Description: World of Biology is intended to provide students with laboratory experience in various biological contexts. We will explore topics covered in BIOL 1010 with the added luxury of actually performing some of the experiments discussed in lecture. Note that this class is graded separately from BIOL 1010.

Learning Goals:

1. To provide an overview of basic knowledge, principles, methodologies, theories, and perspectives in biology.
2. To offer opportunities to work in groups with other students to practice effective communication about concepts and issues in biology.
3. To provide a broad understanding and appreciation of biology and encourage continuous inquiry and lifelong learning.
4. To provide the framework to critically evaluate and use information from various scientific sources to answer questions relevant to biology.
5. To understand the relationship between the fields of biology, chemistry, physics, geology and other sciences.
6. To appreciate the interdependence of humans, natural ecosystems, and diversity of life on earth.
7. To develop more informed and responsible citizens with respect to issues concerning the living world.
8. Use math as it applies to biology. This mostly includes making and interpreting graphs, and may also include calculating averages and variation around an average. I will help you and there will be chances to practice.

Lab Policies:

1. **Arrive to class on time and ready to learn**. You should expect to work productively both in groups and alone. Please demonstrate proper care and use of lab materials and supplies. Most importantly, please do not disrupt the learning environment, rights, and property of others. **Of course, all cell phones/iPods/etc. should be turned off during class.**
2. **Unexcused absences will result in no points for the week.** Like any lab course, this one requires your active participation each week. It will be impossible to pass this course without regular, on-time attendance. As per university regulations, students with excessive tardies or absences will be dropped from the course. Since the lab set-up changes each week, it will not be possible to make up missed labs or quizzes. You may not turn in a lab write-up for a lab you did not attend. If an assignment is due during your unexcused absence, you may not turn it in.
3. **Quizzes will begin promptly at the start of lab.** If you are late you will have less time (or none!) to complete the quiz, so please make every effort to arrive on time. Out of the 10 quizzes for the semester, the lowest score will be dropped.
4. **Zero tolerance for cheating/plagiarism.** Anyone caught will receive an F for the course and be reported to the Dean of Students.
5. **Assignments are due at the beginning of class.** No credit for late work. If you are late, your work is late.
6. The final exam for this class is optional! It will be comprehensive and will be structured similar to lab quizzes.
7. In most labs you will work in small groups of 2-6 people, but **each student is required to hand in their own work**! These will be due at the beginning of the next lab meeting.
8. **Student athletes and DRS students need to notify me at the first lab meeting**.

Recording Lectures and Special Accommodations: Students with documented disabilities should seek special accommodations for all classes through the DRS office on campus. If DRS sends me a file on you that lists recording lectures as an acceptable accommodation, then you may record my lectures. Otherwise, you have to do it the old-fashioned way with pen and paper. If you record my lectures in any form (video, audio, still pictures, etc.) without accommodation from DRS, that constitutes intellectual property theft and will be a bad situation for all involved.

Important Dates: Census Date is Feb. 22nd. This is the last day to add/drop the course or change your grading option without my signature; it is your responsibility to submit the grade change form to Admissions and Records by 5pm that day. Apr. 29th office hour is the last chance to get my signature for grading option change. I strictly adhere to the grading option Academic Records has on file for you when I submit final grades. I will not change grades once final grades have been submitted.

Grading: All materials will be graded and returned to you the following lab period. Grades are based on the percentage of points earned out of points possible on lab write-ups, quizzes, participation, and the optional final exam.

1. 10 quizzes @ 10 points each. Lowest score will be dropped.
2. 13 lab write-ups / assignments @ 5-10 points each.
3. Optional comprehensive final exam. 30 points.
4. Grading scale: A=90-100% B= 80-89% C= 70-79% D= 60-69% F<60% CR>69% NC<70%.
   No fractional grades awarded.

No other points are available. Write-ups will be graded based on completing questions correctly, data collection and careful presentation of graphs/diagrams. After they are graded and returned to you, we will go over all lab write-ups in class and you will have an opportunity to see a key or at least check your answers for correctness. Late work will not be accepted except in dire emergencies; **you must provide documentation of hardship**. All submitted work must be original; no photocopies will be accepted.

Tentative Lab Schedule

Week	Date	Lab Activity
1	30 Jan	Attendance, Syllabus, Lab Safety, and Critical Thinking
2	6 Feb	Scientific Method (pp. 1-11)
3	13 Feb	Cells & Microscopes (pp. 13-27)
4	20 Feb	Transport (pp. 29-39)
5	27 Feb	Metabolism (pp. 41-47)
6	6 Mar	Cell Cycle & Mitosis (pp. 49-55)
7	13 Mar	Genetics & Meiosis (pp. 57-72)
8	20 Mar	Phylogenetic Trees (pp. 13-27)
9	27 Mar	Evolution (pp. 73-81) (outside, bring calculator)
10	3 Apr	SPRING BREAK, NO CLASS!
11	10 Apr	Plant Biology (pp. 81-95)
12	17 Apr	Animal Adaptations (pp. 97-107)
13	24 Apr	Population Parameters (pp. 109-122)
14	1 May	Central CA Ecology (pp. 123-134)
15	8 May	OPTIONAL Final Exam