

BIOL 1020 World of Biology Lab

Fall 2014

Instructor: Catherine Bennett

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Office Hours: Mondays 10-10:50, Tuesday 5-5:50 or by appointment in N 252

Text: *World of Biology 1020 Laboratory Workbook, 6th ed. by Stevens and Fleming. (2014).* Bring this each week. Photocopies are not allowed.

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 further with added hands-on experience of performing some of the experiments discussed in lecture. This lab 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/etc. should be turned off and stored during class. After 2 warnings, the**

student will be dismissed from the lab, and any assignments pertaining to that lab will not be graded.

2. In-class 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 11 quizzes for the semester, the lowest score will be dropped. Quizzes cover the lab material from the previous week, but might contain some on the lab for that week. Once you start a quiz, you may not leave the room and return to complete it.

3. 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 absences or who are consistently late will be dropped from the course. Since the lab set-up changes each week, it will not be possible to make up missed labs. 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, even if you were present to do the lab.

4. Absences are excused if they are documented medical or traffic emergencies. Please contact the instructor to schedule a make-up time for your quiz, and to turn in any assignments that were due during your absence. If you are not able to make up the lab you have missed because you cannot attend another section that week, or you are in the last lab section of the week, unfortunately, there will be no other make up, and therefore, you will not be able to turn in any assignments that are related to the lab you are missing. Students who find themselves in this unfortunate situation can drop one assignment grade instead of dropping their lowest quiz grade. Bring your documentation with you during your quiz make up.

5. Read the chapter in the lab manual prior to lab. Students are expected to be prepared for the lab by reading the lab ahead of time. Groups who have read the lab ahead of time are more efficient, make fewer mistakes, and don't have to start over. Also, some of the in-class quiz questions could be on the lab that week, so be prepared.

6. Zero tolerance for cheating/plagiarism. Consequence: an F for the course and being reported to the Dean of Students.

7. Assignments are due at the beginning of class. No credit for late work. If you are late, your work is late.

8. The final exam for this class is optional! It will be comprehensive and will be structured similar to lab quizzes. If you sign up (opt in) to take the final and don't show, you will receive a zero on it.

9. In most labs you will work in small groups of 2-4 people, but each student is required to hand in their own work! These will be due at the beginning of the next lab meeting.

10. Biology Lab Safety Quiz on Blackboard. **All students must complete this online safety quiz by the next lab session in order to secure their enrollment in lab.** Students who do not pass this quiz are not allowed to be in the lab room at any time. You may take the quiz as many times as you need to. (You do not need to purchase lab coats or goggles)

Student athletes and DRS students: please to notify me at the first lab meeting, or during my office hour.

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, will result in a zero in participation points, and preclude you from turning in any assignments related to the lab session.

Important Dates: Census Date is September 18th. This is the last day to add/drop the course or change your grading option; it is your responsibility to submit the grade change form to the Admissions and Records Office by 5pm that day.

Grading: All assignments will be graded and returned to you the following lab period. Graded quizzes will be discussed the following week, but must be returned to the instructor. You may not use phones to take photos of quizzes. Grades are based on the percentage of points earned out of points possible on assignments, quizzes, participation, and the optional final exam. Categories are not weighed. As a habit, keep all passed back work and check your progress on Blackboard.

1. In-class quizzes: 11 @ 10 points each. Lowest score will be dropped. = 100 points.
(All 11 quizzes count in the case of an excused absence where a make-up could not be scheduled.)
2. Participation and assignments: sharing group data, presenting answers to observation and group study questions, displaying graphs, typed lab reports, individual completion of study questions from the lab manual, graphs, etc. Specific expectations of participation and details of assignment will be discussed during each lab. 5-10 points each lab session.
3. **Optional** comprehensive final exam. 30 points. Opting in is a commitment. Students who opt to take the final will receive a zero if they are not present at the final.
 - Grading scale: A=90-100% B= 80-89% C= 70-79% D= 60-69% F<60% No fractional grades awarded.
 - For those who change their grading option before census date: CR≥70% NC≤69%
 - No other points are available.
 - Late work will not be accepted except in dire emergencies where **you must provide documentation of hardship** (a note from a doctor, a tow truck receipt, etc). All submitted work must be original; no photocopies will be accepted.

| Week of | Tentative Lab Schedule |
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| August 26 | Attendance, Syllabus Intro to Critical Thinking (10 red flags) |
| September 2 <i>Online Biology Safety Quiz must be passed with a score of 100% in order to secure your enrollment.</i> | Cells & Microscopes |
| September 9 | In-Class Quiz 1 Scientific Method and Daphnia Lab |
| September 16 | In-Class Quiz 2 Transport |
| September 23 | In-Class Quiz 3 Metabolism |
| September 30 | In-Class Quiz 4 Cell Cycle & Mitosis |
| October 7 | In-Class Quiz 5 Genetics & Meiosis |
| October 14 | In-Class Quiz 6 Phylogenetic Trees |
| October 21 | In-Class Quiz 7 Evolution |
| October 28 | In-Class Quiz 8 Plant Adaptations |
| November 4 | In-Class Quiz 9 Animal Adaptations |
| November 11 | No lab, Veteran's day <i>Make up is Nov 25th</i> |
| November 18 | In-Class Quiz 10 Central CA Ecology Last day to opt-in to take the final exam |
| November 25 th Tuesday labs only | In-Class Quiz 11 Make up Population parameters lab |
| December 1 | OPTIONAL Final Exam |