

BIOLOGY 1050 – General Biology 1
Fall 2019

Lab: T 9:00-11:50 am N211

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Office Hours: T 12:00 -13:00 hrs. or by appointment

Course Summary

This component of BIOL 1050 is intended to provide students with laboratory experience in various biological contexts. We will explore topics covered in BIOL 1050 with the added luxury of actually performing some of the experiments discussed in lecture.

Student Learning Outcomes

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.

Course Textbook: *Symbiosis Lab Manual* for BIOL 1050 available at the campus bookstore. Bring this each week. Photocopies are not allowed.

Grading policies: Student's learning outcomes will be assessed as follows:

Assignment/Exams	Points breakdown	Total Points
Quizzes (12)	11 quizzes * 10 points each	100
In class activities and Assignments (12)	11 assignments * 10 points each	100
Lab practical	1 exam	50
	TOTAL	250

Final grades: Students will have 2 working days to appeal any discrepancy regarding the grades following the regrading policy state in the syllabus. The course offers many opportunities to the students to earn a passing grade. **The course DOES NOT offer any makeup assignment or evaluation, extra credit assignment, curve, grade shifting or bump up.**

- **Quizzes (100 points):** 11 quizzes (schedule in calendar, lowest grade drop). Questions range from background vocabulary and specific results of each lab to application of concepts to new scenarios. (1) One to two questions on each quiz will be from the upcoming lab, which you are expected to read ahead of time. These questions are general in nature. For example, if we are about to do the enzyme lab, know the definition of an enzyme! (2) One – two questions will be review/cumulative from previous labs.

Once you begin a quiz, you may not leave the room and return to it. Quizzes will begin promptly at 9 AM. If you are late you will have less time (or none!) to complete the quiz, so please make every effort to be on time.

Students who have done well in the past re-read the previous lab carefully for examples of concepts. They look over all the trends in data. They practice answering questions listed under Discussion, Questions for Review and Applying Your Knowledge at the end of most labs. Although you will not be turning those in, expect to see similar questions on quizzes. Consider writing out some of those answers as you are preparing. Often what we think we know in our minds doesn't come out the way we want on paper. Don't wait till the quiz to realize that.

- **Assignments (100 points):** This includes sharing group data, presenting answers to observation and study questions, displaying graphs, writing lab reports, completion of study questions from the lab manual, graphs, etc. for 10 points in each session. Specific expectations of participation and details of assignment will be discussed during each lab. **Lab assignments are due at the beginning of the next lab session.**

Lab Practical: (50 points): Different than a typical sit-down test, during a lab practical you will be going around the classroom, answering questions at different lab stations. At each station, you will answer 1-2 questions. The content is cumulative. Once you begin the lab practical, you may not leave the room and return to complete it.

General Policies

Attendance: Attendance is mandatory in this course. 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. **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/assignment 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.

Students who arrive later than 10 minutes won't be allowed in the classroom. There will be **NO opportunity to make up any quizzes or assignment under any circumstance.** If you miss a lab session you will receive a

zero for that assessment UNLESS:

1) You have an excused absence such as a college sanctioned absence (athletic competition, performance, etc.) or state or federally accepted religious observance. It is the student's responsibility to contact the instructor prior to the lab session.

2) You have a jury duty commitment. Requires documentation of the commitment by the country.

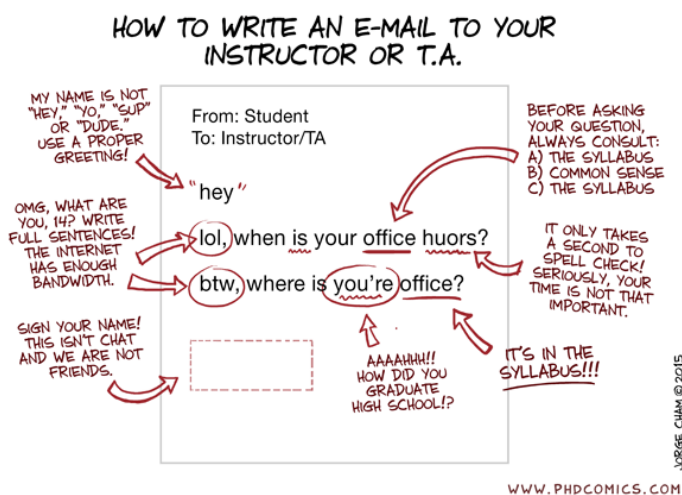
3) You have an unexpected absence due to a severe illness or serious crisis of an immediate family member. It is the student's responsibility to contact the instructor within two working days of the absence. Students are required to document that the absence was excused (note/call from doctor/nurse/dean of students) and provide written and signed evidence within seven days confirming that the illness or crisis was serious enough to justify the absence. Submitted evidence will be verified prior to approval of a provisional grade.

If an absence is due to one of the three situations listed above and the student has followed the procedures outlined, **then a provisional grade based on the average of the student's other quiz or assignment scores shall be granted.**

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

Electronic Devices: Use of computers will be allowed on certain days when working on assignments during lab session. Electronic devices in this class are viewed as learning tools. Disruptions will not be tolerated. If you are caught texting, gaming or disrupting others, you will be asked to stop and/or leave room. Abuse of this policy may lead to assignment do not be graded.

Communicating: Please write **Bio 1020** in the subject line of your email or it **WILL NOT GET RESPONDED TO**. Please be sure that you follow the e-mail etiquette.



Laboratory Policies: Your attendance and participation are important parts of this course. Please be considerate of your classmates! All phones, electronic devices, and other noisemakers should be off during the entire class. Please do not disrupt class by arriving late or leaving early. You are expected to attend class, participate in the activities and to take your own notes.

As a group, help each other with clean up. Each instance of not cleaning up will result in a deduction of 5 points for the group.

Regrading: The students can request a regrading for any of the assignments and quizzes no later than 3 days after grades are entered. The students should request a meeting with the instructor and prepare the material for regrading, which include (1) graded assignment and (2) clear statement where the student highlights the credits in question.

Calendar/schedule: Labs schedule (due dates for assignments and quizzes) is tentative. If there are any changes, those will be announced during Lab and Blackboard.

Academic Honesty: Although students are encouraged to study together and even work with each during the lab sessions and homework assignments each student must submit their own work. If (1) identical work is submitted, or (2) students who copy from others or use disallowed material, such as cell phones or cheat sheets on quizzes, students involved will be granted with and **F** in the course and will be officially reported to the Dean of Students.

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 lectures. Otherwise, you have to do it the old-fashioned way with pen and paper. If you record 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 19th. This is the last day to change your grading option through Enrollment Services in MSR. Once you change your grading option, it cannot be changed back.

Lab Schedule

Tentative schedule of topics subject to changes. Notifications will be made during lab and posted in Blackboard.

Date	Tentative Lab Schedule	Quiz
8/22-23	No labs this week	
27-August	Lab safety, neurophysiology of learning, study skills, time management	
3 rd - Sep	Lab 1 Microscopes and Cells (pg. 33 in lab manual)	
10-Sep	Lab 2 Scientific Investigation (pg. 5 in lab manual)	Quiz 1
17-Sep	Lab 3-1 Practice Pipetting, DNA extraction, PCR	Quiz 2
24-Sep	Lab 3-2 Restriction Digest, Running gels, Bioinformatics BRING YOUR LAPTOP OR TABLET FOR AN IN-CLASS EXERCISE	Quiz 3
1-Oct	Lab 4 Enzymatic Activity (pg. 85 in lab manual) and (Set up seed germination lab)	Quiz 4
8-Oct	No LAB	
15-Oct	Lab 6 Mitosis and Meiosis (pg. 119 and 125 in lab manual)	Quiz 5
22-Oct	Lab 7 Solving Genetics Problems (pg. 131, 137, 139, 157 in lab manual)	Quiz 6
29-Oct	Lab 8 Photosynthesis (pg. 109 in lab manual)	Quiz 7
5-Nov	Lab 9 Respiration/ Fermentation (pg. 113 in lab manual)	Quiz 8
12-Nov	Lab 10: Population Genetics and Evolution (pg. 159 in lab manual)	Quiz 9
19-Nov	Review Session	Quiz 10
26-Nov	Lab 5: Diffusion and Osmosis (pg. 57 in lab manual)	Quiz 11
3-Dec	Lab Practical	
13-Dec		