

BIO 181: GENERAL BIOLOGY I LABORATORY SYLLABUS

FALL 2017

CONTACT INFORMATION:

Lab Teaching Assistant (Lab TA) Name: Michelle DiPalma

E-mail Address: michelle.dipalma@asu.edu

Office Location: LSC S41

Office Hours: Tuesday: 10:30am -11:30am & Thursday: 10:30am -11:30am

Lab Section: 72255 & 73049

Lab Location: LSE S04

Lab Day and Time: Monday: 1:30-4:15 & 4:30-7:15

Laboratory Coordinator: Anup Abraham

Office: LSE B49

E-mail: aabraha8@asu.edu

Office hours: by appointment

The lab coordinator is your second point of contact for any difficulties in the lab with, your lab TA being your first. Issues with grading discrepancies, late assignments, and group contribution should be communicated with your lab TA before speaking with the lab coordinator. However, if you have issues or concerns about your lab TA, please contact the Laboratory coordinator.

REQUIRED TEXT:

BIO181 Laboratory Exercises for General Biology I Sixth Edition (ISBN# 978-0-7380-8175-5)

The manual can be purchased from the ASU Bookstore.

REQUIRED LABORATORY MATERIALS:

If you do not bring the required laboratory materials to lab you will receive an unexcused absence and forfeit all points for the day. The following materials must be brought to every lab class:

1. Lab Manual
2. Safety goggles, Available at the ASU Bookstore
3. Lab coat, Available at the ASU Bookstore
4. Closed toed shoes
5. ASU student ID or another form of ID (needed to check-out microscopes and laptops)

LABORATORY OBJECTIVES:

The School of Life Sciences has specific expectations for learning outcomes for students who complete an undergraduate major. The three main areas of proficiency are:

- Knowledge (e.g. concepts, content, and theories of major areas of life science).
- Research skills (e.g. interpretation of numeric data and models, communication of findings in writing and verbally, basic computer operation).
- Scientific literacy (e.g. ways that scientific research is conducted and knowledge generated).

My goal in this laboratory section is to teach you how to think and communicate about biology. This requires that you:

1. Practice good critical thinking skills by:
 - a. Learning to ask good questions
 - b. Evaluating knowledge and assumptions – how we know what we know
 - c. Applying knowledge to new situations
 - d. Learning to read and write carefully
2. Understand and use scientific language, including the scientific method; recognizing its strengths, limitations, and common misunderstandings.
3. Explore fundamental concepts in biology, particularly cell biology, molecular biology, metabolism, and physiology of selected tissue and organ systems.
4. Improve your written and oral communication skills and share the results of your work with others.

LABORATORY ATTENDANCE POLICY:

- Attendance is mandatory
- **Students missing 3 or more labs, excused or unexcused, will receive a grade E for the course. More specifically, if you miss more than 2 labs, you will receive an E in the lab and lecture combined.**
- Students arriving 5-15 minutes late to lab will be excused once. If it happens again, every time the student is 5-15 minutes late will be considered as an absence.
- Labs will take the full 2 hours and 50 minutes. Showing up more than 15 minutes late and/or leaving early will count as an absence.
- Excused absence are only offered if you have proper documentation. Documentation (doctor's note, accident report, police report, etc.) must be submitted to your Lab TA, and has to be approved by your Lab TA or lab within seven days after the absence. Examples of an excused absence include doctor's appointments, attending a funeral or memorial service, being

involved in an accident, jury duty, religious activities, etc.. Examples of things which are not considered as an excused absence include bad traffic, missing the bus, being hung-over, hanging out with friends, going on vacation, attending a friend's wedding, etc..

- If you have a 'scheduled excused absence', please give your Lab TA a seven day advanced notice. 'Scheduled excused absences' are absences which are not sudden or abrupt; this include religious activities, university approved sports or activities, ROTC commitments, jury duty, etc.. If you have a scheduled excused absence and you know you will be missing a lab at some point this semester, you should contact your TA as soon as possible and arrange to attend another lab section the same week to make up the lab.
- If you have an unexcused absence, you cannot make up the lab or the experiment. Additionally, you will forfeit your pre-lab and post-lab quiz grades (regardless of completion).
- If you have an excused absence, only the post-lab quiz will be excused. The pre-lab quizzes and lab assignments will NOT be excused.
- Once a laboratory has been completed by all the lab sections, the materials and equipment needed for that lab session are dismantled and will not be reassembled later for purposes of making up missed labs.

LABORATORY SAFETY:

- You **MUST** wear closed toed shoes that cover your toes and the tops of your feet. If you are not wearing appropriate footwear, you will be asked to leave and you will receive an unexcused absence.
- You **MUST** wear a lab coat at all times while in the lab. If you leave the lab room for any reason, remove your lab coat and put it back on when you return. You should button down your lab coat while in the lab. If you are not wearing a lab coat, you will be asked to leave and you will receive an unexcused absence.
- You **MUST** wear goggles (protective eyewear) while working with chemicals and/or organisms. If you are not wearing appropriate eye protection, you will be asked to leave and you will receive an unexcused absence.
- Food and drink (including water) are **NOT** permitted in the lab room. If you need to drink water, you should step outside the lab to do so.
- Cellphones should be put away and on silent mode (not vibration!) while in the lab. You should not have your cellphone on the lab bench, because of possibility of contamination.
- Electronic cigarettes, (e-cigs, or e-cigarettes), personal vaporizers (PV), or electronic nicotine delivery systems (ENDS) should not be used in lectures or labs.

ASSIGNMENTS:

Online Quizzes:

- All quizzes are **due on Sunday before 11:59:00PM**, unless mentioned otherwise (see the assignment due dates schedule below). If you fail to submit your quiz online before the due date/time, you will receive a 0 for the quiz.
 - Again, the due time is 11:59:00PM ← note that if your submission is 1 second late, Blackboard will count it as a late submission and omit your quiz score (you will get a 0).
- Please pay attention to the deadlines posted on your lab syllabus.
- You have two types of online quizzes: 1) **pre-lab quiz** and 2) **post-lab quiz**. Both quizzes are posted on blackboard, under designated folders labeled folders.
- Each online quiz is worth 10 points.
- Online quizzes are posted a week before the due date.
- All quizzes should be completed individually and independently.
- Quizzes are not considered open book or note quizzes and academic integrity is assumed. Violation of academic policies will result in an XE for the course grade.
- Pre-lab quizzes will cover that week's lab experiments, video lectures, and required readings.
- We recommend that the students complete their required reading and watch/listen to the required video/audio lectures before starting the pre-lab online quiz.
- Post-lab quizzes will cover that week's lab experiments, video lectures, and required readings. We recommend that you complete the post lab quiz within 24 hours after attending the respective lab.
- Quizzes questions maybe multiple choices, or multiple answers, or fill in the blank question.
- Use Google Chrome or Firefox to minimize technical problems with Blackboard. If you have technical problems during the quiz, you must first contact blackboard helpline (for immediate assistance, call ASU at 1-855-278-5080 or visit the My ASU Service Center (my.asu.edu/service) to get personalized support through 24/7 live chat or by submitting your request online) and get a case number before we will reopen the quiz. If the ASU Service Center cannot resolve your problem, then you may contact the lab TA, who will re-start your quiz.
- The lab TAs and the lab coordinator will **NOT** provide any last minute technical assistances or support. We need a 48 hour advanced notice. If you fail to complete or submit a quiz due because of last minute technical issues, you will received your earned grade.

Lab Reports:

- Three lab report will be assigned during this semester. Collaboration on data collection, data analysis, and brainstorming are encouraged. However, all lab reports should be individually written and submitted.
- Resources for writing a lab report is posted on blackboard.
- Lab reports are mandatory and will not be excused (regardless of absence).

Student Presentation:

- There is a student group presentation which is part of your lab grade. The subject of these presentations is currently available on Blackboard. You will be working with your group members (in a group of four) for this assignment. All group members are expected to fully participate in preparation and presentation of these assignments. Lack of participation or availability to work with your group members will result in a grade of zero for the assignment.

Lab Participation:

- There are 20 points assigned to lab participation. To earn all 20 points you should be present in the lab both physically and mentally. Lab participation is graded on the following criteria:
 - Lab attendance
 - Lab participation, which include discussions, communication, and participation in activities.
 - Lab manual completion
 - Cleanness, which includes ensure your lab station is sanitized and equipment are cleaned and dried.

LATE ASSIGNMENTS:**Online Quizzes:**

- Pre-lab and post-lab quizzes cannot be completed after the due date.
- Pre-lab and post-lab quiz due dates are posted below.
- Pre-lab and post-lab quiz due time is 11:59:00 PM (hour:minute:second).

Lab Reports and Other Assignments:

- Late assignments will be penalized 25% (from your earned grade) per day (includes weekends/holidays/break days).
- You automatically lose 25% (from your earned grade) if you fail to submit your assignment at the beginning of lab. That being said, not having enough time to complete an assignment is not an excuse to plagiarize. You should contact your TA to find out other options you might have.
- The lab reports should be submitted electronically via the SafeAssign (link will be available on Blackboard prior to your lab). Failure to submit your lab report on SafeAssign will result in a zero for the lab report grade.
- A second copy of your lab report should be submitted to your Lab TA's email address.
 - SafeAssign and Lab TA email submissions are due before your respective lab start date and time.

Student Presentation:

- We do NOT accept late presentations.

24/7 Rule:

- We strive to be transparent and fair in grading. If you wish to question a grade you must do so during office hours or by appointment (i.e., not during or immediately following lab). You may not discuss your grade on a recently graded assignment within the first 24 hours of receiving the grade. This period is for you to look over your assignment. If you still have questions after the 24-hour period, you have 7 days to contact me and discuss any issues. If the issue or concern has not been resolved, the lab coordinator can be reached at <aabraha8@asu.edu>. The grade will not be revised after this time has elapsed.

LAB SCHEDULE

Week of	Lab Topic
08/14/2017	No labs this week
08/21/2017	Lab Orientation, Syllabus, and Nature of Science and Scientific Inquiry
08/28/2017	Molecules of Life
09/04/2017	No labs this week (Labor Day Observed)
09/11/2017	Cellular Respiration
09/18/2017	Scientific Literature and Writing a Literature Review
09/25/2017	Photosynthesis
10/02/2017	DNA Fingerprinting
10/09/2017	No labs this week (Fall Break)
10/16/2017	Bacterial Transformation
10/23/2017	Data Collection for Bacterial Transformation
10/30/2017	Student Presentations
11/06/2017	Mendelian Genetics
11/13/2017	Population Genetics
11/20/2017	No labs this week (Thanksgiving Holiday Observed)
11/27/2017	Phylogenetics: Evolution – Domesticating Dogs
12/04/2017	No labs this week

GRADING:

The General Biology I Lab is worth 300 point total. The grades will be added to your final course grade at the end of the semester.

Assignment	Points
Pre-lab Online Quizzes (10pts per quiz)	90*
Post-lab Online Quizzes (10pts per quiz)	90*
Scientific Literature Lab - Cellular Respiration Methods and Results Write-Up	5
Cellular Respiration Lab Report (Individual lab report)	15
Photosynthesis Results and Discussion Write-Up	10
DNA Fingerprinting Lab Report (Individual lab report)	20
Bacterial Transformation Lab Report (Individual lab report)	25
Student Presentation PowerPoint Submission (group of 4)	10
Student Presentation (group of 4)	15
Lab participation points	20
Total	300

All assignments should be completed individually and independently, with the exception of the final student presentation.

*Out of 20 lab quizzes, 1 of your lowest pre-lab quiz and 1 of your lowest post-lab quiz scores will be dropped.

ASSIGNMENT DUE DATES:**Pre-Lab and Post-Lab Quiz Due Dates:**

Lab Topic	Pre-lab quiz due date	Post-lab quiz due date
Lab Orientation, Syllabus, and Nature of Science and Scientific Inquiry	08/20/2017	08/27/2017
Molecules of Life	08/27/2017	09/03/2017
Cellular Respiration	09/10/2017	09/17/2017
Scientific Literature and Writing a Literature Review	-	-
Photosynthesis	09/24/2017	10/01/2017
DNA Fingerprinting	10/01/2017	10/08/2017
Bacterial Transformation	10/15/2017	10/22/2017
Data Collection for Bacterial Transformation	10/22/2017	10/29/2017
Student Presentations	-	-
Mendelian Genetics	11/05/2017	11/12/2017
Population Genetics	11/12/2017	11/19/2017
Phylogenetics: Evolution – Domesticating Dogs	11/26/2017	12/03/2017

Other Assignment Due dates:

- Scientific Literature Lab - Cellular Respiration Methods and Results Write-Up is due on the week of 09/18/2017; due before lab starts. Submit 2 copies: one on Blackboard; the other to lab TA's email.
- Cellular Respiration Lab Report is due on the week of 10/02/2017; due before your lab starts. Submit 2 copies: one on Blackboard; the other to lab TA's email.
- Photosynthesis Results and Discussion Write-Up is due on the week of 10/16/2017; due before your lab starts. Submit 2 copies: one on Blackboard; the other to lab TA's email.
- DNA Fingerprinting Lab Report is due on the week of 10/23/2017; due before your lab starts. Submit 2 copies: one on Blackboard; the other to lab TA's email.
- Student Presentation Blackboard PowerPoint Submission for TA feedback is due on the week of 10/16/2017; due before lab starts. Submit 2 copies: one on Blackboard; the other to lab TA's email.
- Student Presentations are due on the week of 10/30/2017 (- in lab class activity).
- Bacterial Transformation Lab Report is due on the week of 11/13/2017; due before lab starts. Submit 2 copies: one on Blackboard; the other to lab TA's email.

OTHER IMPORTANT NOTES:**CELL PHONE/LAPTOP POLICY:**

Use a cell phone or laptop in lab is NOT permitted unless instructed to. Students should not have the laptops available during the demonstration or lecture portion of the laboratory. Instant messaging and checking email are not appropriate uses for the laptops in the laboratory.

Reminders about using lab laptops:

- You can save your work to 1) the D drive, 2) a USB drive, or 3) email it. Any file saved on the lab laptops and computers will be erased when it is shut down.
- Please ensure that you return computers and power cords to the appropriately numbered location in the cart (please do not plug the cord in when stored in the cart).

CLEAN UP:

Your fellow students will be using the same equipment and specimens. The lab should be left in the same condition that it was found in. Defacing lab equipment in any way will not be tolerated. Please respect your classmates and clean up after yourself. Not

cleaning up after yourself will result in losing some/all of lab participation points. Never leave the lab before you have your TA's approval.

STUDENT CONDUCT:

A major component of the learning process in this lab involves discussion, and therefore we require you to participate in the classroom dialogue. However, we do insist that you be respectful of your fellow classmates and your TA at all times. Please be aware that other students come from different backgrounds and may hold different beliefs. We ask that you be sensitive to these differences and behave in an inclusive manner. In addition, in the interest of fostering a productive learning environment, disruptive behavior of any kind will not be permitted. Inappropriate behavior or language will not be tolerated. Your lab TA holds the right to ask you to leave if s/he feels you are being disruptive to the class at any time.

ACADEMIC MISCONDUCT:

Academic misconduct in any form is in violation of the Arizona State University Student Code of Conduct and will not be tolerated. This includes, but is not limited to, copying or sharing answers on tests or assignments, plagiarism, and having someone else do your academic work. Depending on the act, a student who violates academic policies, partakes in academic misconduct, or violates Arizona State University Student Code of Conduct will receive and XE for the course grade or expelled from the University. For more information of academic misconduct, please see refer to the Lecture and Lab syllabus. Refer to page 6 for more details.

Pre-lab quizzes, post-lab quizzes, lab reports, and all assignments must be completed /on an individual basis unless the TA instructs otherwise. Any plagiarism violations will result in a zero for the assignment; the incident will be reported to the lab coordinator, lecture professor, and may result in a grade of XE for the class. Plagiarism, includes but is not limited to, copying another student's assignment, copying another student's quiz, using another students account to obtain the answers, copying information of the internet and submitting it as your own, copying another student's lab report, and/or using a lab report you have used in a previous semester or different class.

SALE OR UNAUTHORIZED DISTRIBUTION OF COURSE MATERIALS:

Please do not sell or distribute the course materials. Our (BIO 181 lecture and lab) documents (including PowerPoint, video, audio, notes, reviews, and other forms of files/documents) have copywritten materials we (BIO 181 lecture and lab) are authorized to use; however, we (BIO 181 lecture and lab) nor you have the authorization to sell these materials without the copywriters permission. If you sell or distribute BIO 181 course materials, we will file an academic misconduct incident report with ASU Student Services, CLAS Student Affairs, and SoLS. Additionally, we may report the incident to the copywrite holders.

To further clarify with some specific examples, you are not permitted to distribute or sell lab PowerPoint presentations, quizzes, quiz responses, video lectures, audio lectures, laboratory instructional notes (e.g. lab report rubrics, "Instructions for Writing a Lab Report," etc.), the lab syllabus, or other assignments you may have submitted for a grade. Again, if you violate this policy, we will file an academic misconduct incident report with ASU Student Services, CLAS Student Affairs, and SoLS. Furthermore, we will request the department and the university to withdraw your course grade and issue you an XE for the course.

CODE OF CONDUCT:

You and your fellow students are expected to follow the code of conduct for Academic Integrity as established by Arizona State University: <http://students.asu.edu/srr/code>. Please keep in mind that cheating on exams, whether in lecture or in laboratory, damages you and the class as a whole. When one individual cheats to raise their grade dishonestly, all other students in the course lose. The cheater also ultimately loses, because they do not acquire the skills that they have avoided by this act. Academic dishonesty is not tolerated; All work presented in this class must be your own, unless collaboration is explicitly permitted (such as working on a clicker question together or working on a lab together).

- Plagiarism is sometimes harder to define or identify. The 'Student Academic Integrity Policy' manual defines plagiarism [as], "using another's words, ideas, materials or work without properly acknowledging and documenting the source. Students are responsible for knowing the rules governing the use of another's work or materials and for acknowledging and documenting the source appropriately." http://www.asu.edu/studentaffairs/studentlife/judicial/academic_integrity.htm#definitions
- ASU states that "Academic dishonesty, including inappropriate collaboration, will not be tolerated. There are severe sanctions for cheating, plagiarizing and any other form of dishonesty." In serious cases, your instructors can (and have) request that you be expelled from the university.
- All contents of lectures, exercises, quizzes and exams are under copyright protection. You may NOT distribute, post, sell, or buy any notes, exercises, quizzes or exams without written permission from the instructor (and publisher). Unauthorized use of their intellectual property is unethical, illegal, and potentially constitutes plagiarism, and will be dealt with as such.

DISABILITIES:

If you need special accommodation for testing (e.g. extra time) or during the lab portion of the course, please visit the Disability Resource Center, <http://www.asu.edu/studentaffairs/ed/drc/>, and discuss your special needs with the DRC staff within the first week of the semester. Be sure your instructors (lecture and lab) know about your association with DRC as soon as possible. If you need any special accommodations in the lab please also inform Anup Abraham <aabraha8@asu.edu>.

ACADEMIC INTEGRITY

The following is an excerpt from the official Arizona State University policy on Academic Integrity. This policy may be viewed in its entirety at: <http://provost.asu.edu/academicintegrity>.

Each student must act with honesty and integrity, and must respect the rights of others in carrying out all academic assignments. A student may be found to have engaged in academic dishonesty if, in connection with any Academic Evaluation or academic or research assignment (including a paid research position), they:

- Engages in any form of academic deceit.
- Refers to materials or sources or uses devices (e.g., computer disks, audio recorders, camera phones, text messages, crib sheets, calculators, solution manuals, materials from previous classes, or commercial research services) not authorized by the instructor for use during the Academic Evaluation or assignment.
- Possesses, reviews, buys, sells, obtains, or uses, without appropriate authorization, any materials intended to be used for an Academic Evaluation or assignment in advance of its administration.
- Acts as a substitute for another person in any Academic Evaluation or assignment.
- Uses a substitute in any Academic Evaluation or assignment.
- Depends on the aid of others, including other students or tutors, in connection with any Academic Evaluation or assignment to the extent that the work is not representative of the student's abilities.
- Provides inappropriate aid to another person in connection with any Academic Evaluation or assignment, including the unauthorized use of camera phones, text messages, photocopies, notes or other means to copy or photograph materials used or intended for Academic Evaluation;
- Engages in Plagiarism.
- Uses materials from the Internet or any other source without full and appropriate attribution.
- Permits his or her work to be submitted by another person in connection with any Academic Evaluation or assignment, without authorization.
- Claiming credit for or submitting work done by another. (No, you didn't accidentally put your name on another student's assignments and upload it onto Blackboard.)
- Signs an attendance sheet for another student, allows another student to sign on the student's behalf, or otherwise participates in gaining credit for attendance for oneself or another without actually attending.
- Sale or unauthorized distribution of course materials.
- Falsifying or misrepresenting hours or activities in relationship to an internship, externship, field experience, clinical activity or similar activity.
- Attempts to influence or change any Academic Evaluation, assignment or academic record for reasons having no relevance to academic achievement.
- Using academic work or assignments from a previous semester. Students who are repeating the class are NOT allowed to use old assignments, which were submitted for credit.

Plagiarism: Means using another's words, ideas, materials or work without properly acknowledging and documenting the source. Students are responsible for knowing the rules governing the use of another's work or materials and for acknowledging and documenting the source appropriately.