

FALL 2018 LABORATORY SYLLABUS: GENERAL BIOLOGY 1 (BIO 181)

Instructor: Dr. Udo Savalli

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Lecture: MWF 8:35 – 9:25 am. Lect 110. TTh 10:30 – 11:45 am. CLCC 299. MWF 9:40 – 10:30 am. CLCC 246.

Laboratory: 12:00 – 2:45 pm

Office Hours: TBA.

Course Description: Biology 181 lecture and laboratory is designed to give students a survey of the basic theories of the discipline and the relationship between structure and function in living organisms at the molecular, cellular, organismal and population levels. This course is designed to be taken as the first of a two-semester series. The second semester (BIO 182) should be taken after this course. Credit is allowed for only BIO 181, 281, or 282.

Course Goals and Learning Outcomes: The goal of this laboratory course is to provide students with a basic understanding of the theories and a sampling of common experimental techniques used in the biological sciences in the study of biochemistry, cell biology and genetics. Upon completion of the course students should be able to describe the basic tenets of the biological sciences at the molecular, cellular and organismal levels, as well as demonstrate a working understanding of the scientific method, basic laboratory skills relevant to biological research, and awareness of safety procedures relevant to a biological research laboratory.

Attendance: Attendance at all laboratory exercises is essential to performing well in this course. It is the student's responsibility to obtain information from missed lectures. Tardiness to laboratory will not be tolerated. It disrupts the lesson, and is disrespectful to other students. If it is unavoidable, please inform the instructor in advance. Reasonable accommodations will be made in cases of religious holidays or emergency situations. It is the student's responsibility to provide the instructor with documentation of holidays and or emergencies and a plan to cover the missed course material.

Students that miss more than two laboratory exercises will not pass the course.

Course Materials:

Biology: How Life Works, 2nd edition (2016), Morris et al. Freeman/MacMillan Learning

Biology Laboratory Manual, 11th edition. (2017), Vodopich & Moore. McGraw Hill

Writing Papers in the Biological Sciences, 6th edition (2017), McMillan. Bedford/St. Martin's

Appropriate Laboratory Attire: Goggles are available for sale in the bookstore and will be available in the lab. Safety goggles must be worn during the lab periods when chemicals are used, as well as gloves (provided during the lab). Close toed shoes are required for all laboratory exercises.

Computer Access: Many of the documents necessary for this course will be posted on the course's Blackboard web site. Students can access this from their myASU account (<https://my.asu.edu>). Computers for student use can be found in West Campus Computing Commons in the basement of Fletcher library.

Assignments and Grading for the Laboratory: Assessment of learning for the laboratory portion of this course will be based on the following point assignment and grading scale:

Quizzes	35%	Mendelian Genetics problem set	5%
Mini reports (4 at 15% each)	60%		

Laboratory Quizzes (35%): At the beginning of each laboratory class, a quiz will be given. Each quiz is worth 10 points. The quiz will be 50% over the current day's lab and 50% over the prior

week's lab. The quiz starts PROMPTLY when laboratory begins, and there will be a time limit. If you arrive late, you will not be allowed to take the quiz. There are no make-up quizzes.

Laboratory Mini Reports (60%): Students will be assigned to laboratory groups of four students each. Each lab group will be responsible for four written laboratory reports during the semester. For each report, the laboratory group will designate a lead author. Each student must be lead author on one of the reports. The final grade given to each student for the lab reports will be weighted by 75% for the report that the student was lead author on, and the remaining 25% will be based on the other three lab reports. Papers will be written in the style of a mini report. See handouts and pages 61-103 of the writing book for details.

Mendelian Genetics problem set (5%): For the genetics laboratory, a set of genetics problems will be given to the student to do on their own. The problem set is due the next week.

Late assignments: Assignments turned in after they are due will be penalized 10% for each day they are late. If the delay was caused by a serious emergency or other dire situation, and the student notifies the professor in advance, (or during lab), the instructor may choose not to penalize the assignment. Decisions are made on a case-by-case basis. The student is responsible for bringing all documentation to the instructor.

Cell Phones: Students whose phones interrupt the laboratory may be asked to leave and receive a penalty to their final course grade of 10% or one full letter of the final grade per infraction.

Missed Laboratory Exercises Policy

Missed laboratory sessions may NOT be made up. Students who miss a laboratory session as a result of illness (documented with a doctor's note), religious holiday, or other extenuating and documented circumstance (as determined by the instructor of the laboratory) should consult the laboratory instructor to resolve the situation on a case by case basis.

The ASU Writing Centers across all campuses

The ASU Writing Centers offer free tutoring for all enrolled ASU students. Tutors from a wide range of majors help students hone writing skills and gain confidence at any stage of the writing process. The ASU Writing Centers are located at the West, Downtown Phoenix, Tempe, Thunderbird, and Polytechnic campuses. Online tutoring is also available.

All writers can benefit from visiting the Writing Center to:

- explore, plan, and develop ideas
- organize and structure a paper
- integrate and cite sources
- engage in writing and revision
- discuss editing and proofreading strategies
- find a place to write

For more information about the ASU Writing Centers, please visit their website at <https://tutoring.asu.edu/writing-centers>.

The ASU West Writing Center

The ASU West Writing Center is located on the lower level of Fletcher Library. In the Writing Center, tutors from a wide range of majors help students hone writing skills and gain confidence at any stage of the writing process. Appointments are 30 minutes long, and you can schedule an appointment online, in person, or over the phone with a receptionist. If you have any questions, please call the Writing Center at (602) 543-6169.

For more information about the ASU Writing Centers, please visit their website at <https://tutoring.asu.edu/writing-centers>.

Course Schedule For 181 Laboratory – CLCC 204 (Subject to Change with Notice):

Date	Topic	Manual Exercise	Assignment
Aug 27-30	Introduction and safety talk Measuring & Graphing	2, handouts	
Sept 10-13	pH	5	Mini report 1
Sept 17-20	Diffusion and Osmosis	handout	
Sept 24-27	The Microscope and the Cell	3 & 4	
Oct 1-4	Enzymes	11	Mini report 2
Oct 15-18	Respiration 1	12 & handouts	
Oct 22-25	Respiration 2	12 & handouts	Mini Report 3
Oct 29-Nov 1	Mitosis & Meiosis	14 & 15	
Nov 5-8	Bio-Rad pGlo transformation	handouts	Mini Report 4
Nov 26-29	Bio-Rad pGlo transformation results/ Mendelian Genetics	17 & handout	Mendelian Genetics handout

Course/Instructor Evaluation

The course/instructor evaluation for this course will be conducted online 7-10 days before the last official day of classes of each semester or summer session. Your response(s) to the course/instructor are anonymous and will not be returned to your instructor until after grades have been submitted. The use of a course/instructor evaluation is an important process that allows our college to (1) help faculty improve their instruction, (2) help administrators evaluate instructional quality, (3) ensure high standards of teaching, and (4) ultimately improve instruction and student learning over time. Completion of the evaluation is not required for you to pass this class and will not affect your grade, but your cooperation and participation in this process is critical. About two weeks before the class finishes, watch for an e-mail with **"NCIAS Course/Instructor Evaluation"** in the subject heading. The email will be sent to your official ASU e-mail address.

Withdrawals: The instructor will NOT withdraw students for any reason. Specifically, students should be aware that non-attendance will **NOT** automatically result in their being dropped from the course. Therefore, if a student does not attend class during the first week or for any extended period of time during the semester, they should not presume that they are no longer registered. **It is the student's responsibility to be aware of their registration status.**

Please note the following dates:

Session Date & Deadlines	Session C 08/16/2018 – 11/30/2018 (Final Exams 12/03/2018 – 12/08/2018)
Classes Begin	August 16, 2018
Drop/Add Deadline (w/out College approval)	August 22, 2018
Tuition & Fees 100% Refund Deadline	August 29, 2018
Tuition Fee Payment Deadline (registration through 8/18/2018)	August 25, 2018
Labor Day – No classes/University Closed	September 3, 2018
University 21st Day	September 5, 2018
Tuition Fee Payment Deadline (registration from 8/19/2018 through 9/18/2018)	September 25, 2018
Course Withdrawal Deadline	October 31, 2018
University 45th Day	September 29, 2019
Deadline to Apply for Graduation	October 1, 2018
Fall Break – Classes Excused	October 6-9, 2018
Tuition Fee Payment Deadline (registration from 9/19/18 through 10/18/18)	October 25, 2018
Veteran's Day Observed – University Closed	November 12, 2018
Thanksgiving Holiday Observed – University Closed	November 22-23, 2018
Complete Session Withdrawal Deadline	November 30, 2018
Classes End/Last Day to Process transactions	November 30, 2018
Study Days	December 1-2, 2018
Final Exams	December 3-8, 2018
Final Grades Due	December 3-10, 2018
Commencement (Graduate and Undergraduate)	December 10, 2018
Degree Conferral Date/Academic Standing Processing	December 10, 2018
Grade Replacement/Academic Standing Processing	December 11-12, 2018
Holiday Break – University Closed	December 24-25, 2018

Any withdrawal transaction must be completed by the deadline date in accordance to the appropriate session at the registrar's office. If not, you will still be officially enrolled and you will receive a grade based on your work completed.

*As part of a complete session withdrawal a student must withdraw from all classes in a session. Beginning the first day of classes, undergraduate students are required to work with a Student Retention Coordinator to facilitate the withdrawal process. Please refer to <http://students.asu.edu/StudentRetention> for additional information about ASU's withdrawal policy and the possible consequences of withdrawing from a class, contact Registration Services or your academic counselor.

Students are responsible for their registration status!

The Grade of Incomplete: A grade of incomplete will be awarded only in the event that a documented emergency or illness prevents a student who is doing acceptable work from completing a small percentage of the course requirements at the end of the semester. The guidelines in the current general ASU catalog regarding a grade of incomplete will be strictly followed. **A grade of incomplete will NOT be awarded unless there is documented evidence of extreme personal or immediate family hardship.** Changes in work hours, child-care emergencies, or other similar personal problems will not be approved as reasons for awarding incompletes. The Director of the School of Mathematical and Natural Sciences must approve all incomplete grade requests.

Assessments: Please be aware that student scores on exams or other graded work may be used for assessment of program goals of degrees offered by the School of Mathematical and Natural Sciences.

Reasonable Accommodations for Students with Disabilities: The Disability Resource Center (DRC) provides information and services to students with any documented disability who are attending ASU West. Individualized program strategies and recommendations are available for each student as well as current information regarding community resources. Students also may have access to specialized equipment and supportive services and should contact the instructor for accommodations that are necessary for course completion.

Academic Integrity and Code of Conduct:

As defined in the *ASU Student Academic Integrity Policy*: <http://provost.asu.edu/academicintegrity>.

Each student has an obligation to act with honesty and integrity, and to respect the rights of others in carrying out all academic assignments. A student may be found to have violated this obligation and to have engaged in academic dishonesty if during or in connection with any academic evaluation, he or she:

- Engages in any form of academic deceit;
- Refers to materials or sources or employs devices (e.g., audio recorders, crib sheets, calculators, solution manuals, or commercial research services) not authorized by the instructor for use during the academic evaluation;
- Possesses, buys, sells, obtains, or uses, without appropriate authorization, a copy of any materials intended to be used for academic evaluation in advance of its administration;
- Acts as a substitute for another person in any academic evaluation;
- Uses a substitute in any academic evaluation;
- Depends on the aid of others to the extent that the work is not representative of the student's abilities, knowing or having good reason to believe that this aid is not authorized by the instructor;
- Provides inappropriate aid to another person, knowing or having good reason to believe the aid is not authorized by the instructor;
- Engages in plagiarism;
- Permits his or her work to be submitted by another person without the instructor's authorization; or
- Attempts to influence or change any academic evaluation or record for reasons having no relevance to class achievement.

General Biology 1 (BIO 181) laboratory follows the ASU Academic Integrity Policy in the administration of all course examinations and assignments. Violations of the University Academic Integrity policy will not be ignored. Penalties include reduced or no credit for submitted work, a failing grade in the class, a note on your official transcript that shows you were punished for cheating, suspension, expulsion and revocation of already awarded degrees. The university requires that the implementation of any of these penalties for violations of the academic integrity policy be reported to the Dean's office. The Integrity Policy defines the process to be used if the student wishes to appeal this action.

In **General Biology 1 (BIO 181) laboratory** you are expected to follow the *ASU Student Code of Conduct* (<http://students.asu.edu/srr/code>) especially when communicating with your peers, instructors, and teaching assistants. Violations of the student code of conduct may result in withdrawal from the class.

Absence Policies: In addition to the instructor's general policy on absences and missed work, excused absences and conditions for making up work include "Accommodation of Religious Practices" (<https://www.asu.edu/aad/manuals/acd/acd304-04.html>) and "Missed Classes Due to University-Sanctioned Activities" (<https://www.asu.edu/aad/manuals/acd/acd304-02.html>). Students must notify their instructors of these absences as early as possible in the semester.

Missed Work/Exam Make-up Policy: Due dates for assignments and exam dates are not flexible. Late work will not be accepted, and missed exams cannot be made up, without prior approval of the instructor and without appropriate documentation of a medical or other emergency. The instructor has the right to deduct 10% of the value of the assignment, per day, for any late work or exams that are accepted. The instructor also may add additional provisions to this policy as dictated by course requirements.

Final Exam Make-up Policy: The final exam schedule listed in the Schedule of Classes will be strictly followed. Exceptions to the schedule and requests for make-up examinations can be granted only by the director of the School of Mathematical and Natural Sciences for one of the following reasons:

1. religious observances
2. the student has more than three exams scheduled on the same day
3. two finals are scheduled to occur at the same time

Make-up exams will **NOT** be given for reasons of non refundable airline tickets, vacation plans, work schedules, weddings, family reunions, or other such activities. Students should consult the final exam schedule before making end-of-semester travel plans.

If there is a last-minute personal or medical emergency, the student may receive a grade of Incomplete and makeup the final within one calendar month. The student must provide written documentation and be passing the class at the time to receive an Incomplete. A signed "Request for Grade of Incomplete" must be submitted by the student and approved by the student's instructor and the Director of the School of Mathematical and Natural Sciences.

Please be aware that student scores on exams or other graded work may be used for assessment of program goals of degrees offered by the School of Mathematical and Natural Sciences.

The instructor reserves the right to make changes to this syllabus as needed.

If you find it necessary to leave a note for this instructor, please contact the administrative reception desk of the School of Mathematical and Natural Sciences located at CLCC II 265

Title IX:

Title IX is a federal law that provides that no person be excluded on the basis of sex from participation in, be denied benefits of, or be subjected to discrimination under any education program or activity. Both Title IX and university policy make clear that sexual violence and harassment based on sex is prohibited. An individual who believes they have been subjected to sexual violence or harassed on the basis of sex can seek support, including counseling and academic support, from the university. If you or someone you know has been harassed on the basis of sex or sexually assaulted, you can find information and resources at <https://sexualviolenceprevention.asu.edu/faqs>

Recording of Lectures:

Our aim is to create a learning environment where all feel free to contribute; thus any recording of class sessions is prohibited (with the exception of those who have a DRC-approved accommodation), and no one should post any verbatim accounts of class discussion or say anything that could identify a class member on social media without the express permission of the course instructor.

Policy against Threatening Behavior:

In the classroom and out students are required to conduct themselves in a manner that promotes an environment that is safe and conducive to learning and conducting other university-related business. All incidents and allegations of violent or threatening conduct by an ASU student will be reported to the ASU Police Department (ASU PD) and the Office of the Dean of Students. Such incidents will be dealt with in accordance with the policies and procedures described in Section 104-02 of the Student Services Manual (<http://www.asu.edu/aad/manuals/ssm/ssm104-02.html>).

Potentially Offensive Content:

If you find any of the content of his class offensive, please bring your concerns to the instructor immediately.

Power Outage:

In the event of a campus power outage or other event affecting the ability of the University to deliver classes, any decision to cancel classes will be announced using the ASU emergency notification system. For this reason, it is imperative that students register with the ASU emergency notification system at: <https://cfo.asu.edu/emergency-alert>. In cases in which a limited number of buildings are affected, students should check the university website and/or call the School office at (602) 543-6050.

Emergency Evacuation Plan:

Students should be aware of the evacuation route posted on the exit door of each classroom. Students who cannot walk down stairs should notify the instructor as early in the course as possible so the instructor can provide information regarding the location of the designated meeting area on each upper floor of the building (marked with a blue sign that states Emergency Evacuation Response Area).