

Biology II Laboratory (BIOL 1625)

Semester: Spring 2017

Location: BNR 120 or 124

I. Course Objectives: This is an investigative laboratory course focused on organismal biology, animal behavior, evolution and ecology. It is designed to be taken concurrently with BIOL 1620. You will apply information learned in BIOL 1620 lectures to asking and answering biological questions while developing the skills and competencies needed for biological research. By the end of BIOL 1625, you will be able to:

1. apply course information when problem solving
2. develop specific skills, competencies, and points of view needed by professionals in the field of biology
3. work effectively in a group

II. Instructor Information

Lab Coordinator: Lauren Lucas

Contact information: e-mail llucas@usu.edu, office phone 797-9461

Drop-in office hours: Thursdays 1-3 pm in BNR 247; See your TA first with any issues.

Teaching Assistants (TAs): Your TA will inform you of the time and location of their office hours the first week of lab.

| TA | Email | Section(s) |
|---------------------|--|---------------|
| Akila Ram | akila.ram@aggiemail.usu.edu | 011, 019, 020 |
| Alex Rego | alexandre.rego@aggiemail.usu.edu | 006, 013, 016 |
| Alice Ruckert | alice.ruckert@usu.edu | 005, 008, 024 |
| Dave Denlinger | david.denlinger@aggiemail.usu.edu | 004, 014, 023 |
| Emily Sadler | sadler.e@gmail.com | 003 |
| George Waldren | george.waldren@aggiemail.usu.edu | 012, 018, 022 |
| Katie Weglarz | kathryn.weglarz@gmail.com | 002 |
| Kristen Heroy | kristen.heroy@aggiemail.usu.edu | 009, 010, 015 |
| Lauren Lucas | llucas@usu.edu | 001 |
| Samridhi Chaturvedi | samridhi.chaturvedi@gmail.com | 007, 017, 021 |

III. Required Lab Materials

- Canvas: You will use our course Canvas site to receive important announcements, download free lab manual documents, take quizzes, and submit group assignments.
- Printing: You will need to bring lab documents to class, either electronically or in print. For a list of printers on campus, see: <http://campusprint.usu.edu/>
- Laptop or tablet with Google Drive for statistical analysis: If you have one, bring it with you. If you don't, we have one you can borrow.
- Course fee: Your \$110 fee is used for disposable equipment (\$30), equipment (\$20) and GTA support (\$50).
- Safety equipment: In compliance with lab safety, you must **wear pants and closed-toe shoes every week**. If you are not wearing the proper attire, you will be sent home with an unexcused absence. No food or drink is allowed outside of your bag while in the room. We will provide disposable gloves, lab coats, and goggles for use when necessary.

IV. Assignments and grading policy

- **Weekly online pre-lab quizzes (40% of grade).** You will read lab documents found on Canvas before coming to lab each week. You will answer a few questions on Canvas regarding this background information. This way, we will all have a strong foundation in the basic information we will apply to the

hands-on projects. The quiz will be available online by Friday of each week and will close an hour before class starts. For all quizzes: it is not timed, you are allowed one attempt, and we will go over the correct answers together in class. Canvas will automatically drop your lowest pre-lab quiz score. Your first two pre-lab quizzes are due before your first class meeting the week of January 23.

- **Weekly in-class scientific reflection (60% of grade).** At the end of each lab session, you and your group members will collaboratively answer questions about the lab project you completed to help you process the science we do together. You will turn this in before you and your group members leave class. Canvas will automatically drop your lowest scientific reflection score. Your first scientific reflection is due the week of January 23.

Your grade will be reflected by your performance on these two major assignments. Final course grades are based on the following scale and will not be rounded up to the nearest whole number: A (93-100%), A- (90-92%), B+ (87-89%), B (83-86%), B- (80-82%), C+ (77-79%), C (73-76%), C- (70-72%), D+ (67-69%), D (60-66%), and F (59% and below).

V. Lab format and schedule: There will be brief lectures and out-of-class readings and quizzes to cover background content, but hands-on, collaborative projects and in-class discussions will dominate the course.

| Week of | Lab project |
|----------------|--|
| Jan 9 | <i>No lab this week</i> |
| Jan 16 | <i>No lab this week</i> (MLK Jr. Day on Mon.) (First pre-lab quiz due 5pm Jan 22.) |
| Jan 23 | 1. Tracking disease outbreak with ELISA (Second pre-lab quiz due an hour before class.) |
| Jan 30 | 2. <i>Daphnia</i> on drugs |
| Feb 6 | 3. Arthropod behavior |
| Feb 13 | 4. Get-to-know seed beetles |
| Feb 20 | <i>No labs this week</i> (President's Day on Monday) |
| Feb 27 | 5. Research proposal for seed beetle project |
| March 6 | <i>No labs this week</i> (Spring Break) |
| March 13 | 6. Seed beetle project |
| March 20 | 7. Seed beetle project Evolution of multicellularity I |
| March 27 | 8. Seed beetle project Evolution of multicellularity II |
| April 3 | 9. Seed beetle project Evolution of multicellularity III |
| April 10 | 10. Seed beetle project Human population ecology |
| April 17 | 11. Seed beetle project Bird community ecology |
| April 24 | 12. Seed beetle project presentations |
| May 1 | <i>No labs during finals week</i> |

VI. Attendance Policy (from the USU Course Catalog): The university views class attendance as an individual student responsibility. You may not attend a lab other than the one for which you are registered. Your TA will not provide you an opportunity to make up work missed because of an unexcused absence. Unexcused absences include: being sent home due to coming to lab without the proper attire, coming to lab more than five minutes late and being sent home due to safety risks, leaving before your group work has been submitted, family vacation. The following are considered excused absences if properly documented: absences demanded by university-sponsored or sanctioned activities; mandatory participation as a student-athlete in NCAA-sanctioned competition; injury, illness or medical condition/status that is too severe or contagious for the student to attend class; major injury, illness, medical condition/status, or death in a student's immediate family; required participation in military duties; mandatory admissions interviews for professional or graduate school; participation in legal proceedings that require the student's presence. In the case of an excused absence, you must provide your TA with written evidence substantiating the reason for the absence (for example, a medical confirmation note that contains the date and time of the visit and the medical professional's confirmation) prior to the date of absence if feasible. In cases where advance notification is not feasible (e.g., accident or emergency), the student must provide written documentation by the end of the second working day after the absence. If the absence is excused and properly documented, you must meet with your TA outside of class to discuss make-up work. Any make-up work must be completed within 14 calendar days of the last day of the absence. Your TA will deny any excused absence make-up work requests that exceeds 20% of class sessions (more than two class sessions).

VII. The Honor System and Plagiarism: To enhance the learning environment at Utah State University and to develop student academic integrity, each student agrees to the following Honor Pledge: "I pledge, on my honor, to conduct myself with the foremost level of academic integrity." A student who lives by the Honor Pledge is a student who does more than not cheat, falsify, or plagiarize. A student who lives by the Honor Pledge:

- espouses academic integrity as an underlying and essential principle of the Utah State University community;
- understands that each act of academic dishonesty devalues every degree that is awarded by this institution;
- is a welcomed and valued member of Utah State University.

Plagiarism includes knowingly "representing, by paraphrase or direct quotation, the published or unpublished work of another person as one's own in any academic exercise or activity without full and clear acknowledgment. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials." The penalties for plagiarism are severe. They include warning or reprimand, grade adjustment, probation, suspension, expulsion, withholding of transcripts, denial or revocation of degrees, and referral to psychological counseling.

VIII. Students with Disabilities: The Americans with Disabilities Act states: "Reasonable accommodation will be provided for all persons with disabilities in order to ensure equal participation within the program. If a student has a disability that will likely require some accommodation by the instructor, the student must contact the instructor and document the disability through the Disability Resource Center (797-2444), preferably during the first week of the course. Any request for special consideration relating to attendance, pedagogy, taking of examinations, etc., must be discussed with and approved by the instructor. In cooperation with the Disability Resource Center, course materials can be provided in alternative format, large print, audio, diskette, or Braille."