



BIOL 3500L – Ecology Laboratory

Course Syllabus – Fall 2016

Individuals with disabilities who need to request accommodations should contact the Disability Services Coordinator, Edgewater Hall 255, (678) 466-5445, disabilityservices@mail.clayton.edu.

INSTRUCTOR INFORMATION – Ann Showalter

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Phone (678) 466-4771
Website www.annshowalter.com
Office LDSC 135K
Office hours MON 11-12:30pm & 2:15-3:30pm, TUES 9:45-11am, THURS 2:45-4:45pm

The best way to contact me is via email. If you do not get a response within one business day, assume I did not get your email. I do not always check email on weekends.

COURSE DETAILS

Course title: BIOL 3500L – Ecology Laboratory (CRN 80674 & 80675)

Classroom location: Lakeview Discovery & Science Center, Room 125

Class meeting day and time: Tuesday 11:15-2:05pm, or Wednesday 9:50-12:40pm

Recommended textbook: Ruxton & Colegrave. 2011. Experimental Design for the Life Sciences. 3rd edition. Oxford University Press.

Students are encouraged to use PriceLoch.com to comparison shop for textbooks.

Credit hours: 1.0 semester credit hour

Catalog description: Laboratory to accompany BIOL 3500, Ecology.

Pre-requisites: BIOL 3500 with a minimum grade of D (can be taken concurrently)

LEARNING GOALS & OUTCOMES

Upon completion of this course, students will be able to:

- Apply the ecological concepts learned in lecture to investigate ecological systems.
- Perform, interpret, and critically evaluate experimental design and statistical analyses (using Excel and R).
- Explain ecological systems and processes using conceptual and mathematical models.
- Communicate ecological ideas through writing, data visualization, and oral presentations.
- Effectively collaborate with other students.

Biology Learning Outcomes:

BIOL 3500L is a required course in the B.S. degree program in Biology. BIOL 3500L supports all seven outcomes of the biology major:

1. Identify and describe the biological core concepts: evolution; structure and function; information flow, exchange, and storage; pathways and transformations of energy and matter; and/or systems.
2. Formulate hypotheses; collect, evaluate, and/or interpret scientific data to solve problems in biological science and supporting fields.
3. Apply quantitative reasoning, modelling and simulations, and/or laboratory skills to answer questions in the biological sciences.
4. Relate knowledge of the other sciences, including computer and social sciences, to biological concepts and skills.
5. Effectively communicate scientific ideas to others inside and/or outside the biology discipline.
6. Identify and describe the impact of biological science on the environment and/or society.
7. Collaborate with other students inside and/or outside the biology discipline.

EVALUATION & GRADING

You will be evaluated with the following assignments/criteria:

	Points	%
2 Practical Exams @ 50 points	100	25%
Assignments & presentations	250	62%
Attendance	50	13%
TOTAL	400	100%

Your grade will be determined as follows:

Grade	Percentage
A	89.5 - 100%
B	79.5 – 89.4%
C	69.5 – 79.4%
D	59.5 – 69.4%
F	below 59.4%

Mid-term progress report: The mid-term grade in this course, which will be issued by October 4, reflects approximately 30% of the entire course grade. Students may choose to withdraw from the course and receive a grade of "W." Students pursuing this option must fill out an official withdrawal form, available in the Office of the Registrar, or withdraw on-line using the Swan by mid-term, which occurs on October 7. [Instructions for withdrawing are provided at this link.](#)

The last day to withdraw without academic accountability is Friday, October 7, 2016.

COURSE SCHEDULE

Week	Day	Lab #	Topic
1	Aug 16/17	1	Introduction to observation & Excel
2	Aug 23/25	2	Crash course in using R
3	Aug 30/31	3	Leaf Stomata Lab: Week 1 Design study & collect data
4	Sep 6/7	3	Leaf Stomata Lab: Week 2 Finish data collection & analyze data
5	Sep 13/14	3	Leaf Stomata Lab: Week 3 Presentations & discussion
		4	Duckweed Lab: Week 1 Design study & set-up experiment
6	Sep 20/21	5	App Developing Lab: Week 1 Build app (Dr. Boudell)
		4	Duckweed Lab: Week 2 Collect data
7	Sep 27/28		PRACTICAL EXAM 1
		4	Duckweed Lab: Week 3 Collect data
8	Oct 4/5	4	Duckweed Lab: Week 4 Analyze data
October 7, 2016 is the last day to withdraw and receive a W grade			
9	Oct 11/12		Fall Break – NO LAB
10	Oct 18/19	5	App Developing Lab: Week 2 Process & analyze data (Dr. Boudell)
		6	Worm Diversity Lab: Week 1 Design study
11	Oct 25/26	6	Worm Diversity Lab: Week 2 Sample worms
12	Nov 1/2	6	Worm Diversity Lab: Week 3 Identify worms & collect data
13	Nov 8/9	6	Worm Diversity Lab: Week 4 Analyze data
14	Nov 15/16	7	Ecological Modelling
15	Nov 22/23		Thanksgiving Break – NO LAB
16	Nov 29/30		PRACTICAL EXAM 2

COURSE POLICIES

1. **Attendance is required for all lab periods, and labs CANNOT be made-up.** If you have a valid excuse for missing lab, please contact me as soon as possible to discuss your situation. Written documentation from an authority (doctor, judge, etc.) will be required to excuse you from attendance points. If you have an unexcused absence, you will lose all your attendance points for the day.
2. **Show up on-time for lab, and stay for the full lab period.** You will be marked late if you are more than 5 minutes late. You can be late one time during the semester without penalty (a freebie!), but for every other tardy, you will lose half of your attendance points for the day. If you are more than 20 minutes late, you will be counted as absent and incur the penalties associated with unexcused absences. There are no freebies for showing up 20 minutes late to lab.
3. **Late policy on assignments.** Unless otherwise indicated, all assignments are due at the start of class. Late assignments are subject to a penalty of 10% of the points for each day (i.e., 24 hour period) that the assignment is late. If you have a valid excuse for submitting an assignment late, please contact me as soon as possible to discuss your situation. Written documentation from an authority (doctor, judge, etc.) will be required for any waivers of the late penalty.
4. **Many assignments will be submitted on Dropbox in D2L.** It is your responsibility to ensure that the appropriate documents have been submitted by the deadline. Submit documents as Word (.doc or .docx), Excel (.xls, .xlsx, or .csv), or R (.R) files only – I will not accept Pages (sorry Mac users!), PDFs, or Google docs for any assignments. If you submit inappropriate documents (e.g., wrong file format or wrong assignment altogether), you will be subject to late penalties until you post the appropriate file to Dropbox.
5. **Help! D2L is not working and something is due today!** If you have problems with uploading a document to D2L, email your assignment to me instead.
6. **Exam procedures.**
 - Exams start at the beginning of class. Students who arrive late will not be given extra time on the exam.
 - Make-up exams will be given only (1) if a valid excuse is provided and (2) if they are taken before graded exams are returned. You are responsible for scheduling a make-up exam within that time frame. In the event that a make-up exam cannot be taken within this time frame, the missed exam will not count in calculating the course grade. This means that other graded work will be responsible for a greater weight in determining the final course grade.

7. **Plagiarism will NOT be tolerated**, and any instances of plagiarism will be subject to disciplinary action (see 'Academic Dishonesty' below). Ignorance is not an excuse. I consider your completion of the plagiarism awareness quiz as evidence that you understand the various forms of plagiarism. If you are ever in doubt, please ask me (or the Writers' Studio) for help.

Plagiarism Detection Software: Students agree that by taking this course all required papers may be subject to submission for textual similarity review to Turnitin.com for the detection of plagiarism. All submitted papers will be included as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers. You should submit your papers in such a way that no identifying information about you is included.

8. **Respectful behavior is expected**. This means active listening when I am talking or when another student is talking during class discussions. Inappropriate side-conversations and the inappropriate use of laptops/cell phones is distracting to other students and disrespectful to everyone. Students repeatedly violating this policy will be asked to leave the classroom for being disruptive.
9. **Visitors are not permitted without the instructor's permission**. Children are not allowed in the classroom at any time.

GENERAL UNIVERSITY POLICIES

General Policy

Students must abide by policies in the Clayton State University Student Handbook, and the [Basic Undergraduate Student Responsibilities](#). The Student Handbook is part of the [Academic Catalog and Student Handbook](#), which begins on page 6.

University Attendance Policy

Students are expected to attend and participate in every class meeting. The university reserves the right to determine that excessive absences, whether justified or not, are sufficient cause for institutional withdrawals or failing grades.

Academic Dishonesty

Any type of activity that is considered dishonest by reasonable standards may constitute academic misconduct. The most common forms of academic misconduct are cheating and plagiarism. All instances of academic dishonesty will result in a grade of zero for the work involved. All instances of academic dishonesty will be reported to the [Office of Community Standards](#). Judicial procedures are described beginning on page 19 in the section of the [Academic Catalog and Student Handbook](#) titled, Procedures for Adjudicating Alleged Academic Conduct Infractions.

Disruption of the Learning Environment

Behavior which disrupts the teaching-learning process during class activities will not be tolerated. While a variety of behaviors can be disruptive in a classroom setting, more serious examples include belligerent, abusive, profane, and/or threatening behavior. A student who fails to respond to reasonable faculty direction regarding classroom behavior and/or behavior while participating in classroom activities may be dismissed from class. A student who is dismissed is entitled to due process and will be afforded such rights as soon as possible following dismissal. If found in violation, a student may be administratively withdrawn and may receive a grade of WF.

More detailed descriptions of examples of disruptive behavior are provided in the Clayton State University [Academic Catalog and Student Handbook](#) starting on page 14.

COMPUTER REQUIREMENTS

Each CSU student is required to have ready access throughout the semester to a notebook computer that meets faculty-approved hardware and software requirements for the student's academic program. Students will sign a statement attesting to such access. For further information on CSU's Official Notebook Computer Policy, please go to [here](#).

Software Requirement

To properly access the course content you will need to download the following free software:

- Adobe Reader (needed to access files in PDF format): <http://get.adobe.com/reader/>
- Adobe Flash (needed to access video content): <http://get.adobe.com/flashplayer/>
- R (needed to analyze data): <http://cran.stat.ucla.edu>
- R Studio (needed to analyze data): <https://www.rstudio.com/products/rstudio/download/>

Computer Skill Prerequisites

- Able to use the Windows™ operating system
- Able to use Microsoft Word™ and Microsoft Excel™
- Able to send and receive e-mail using Outlook™
Only use your CSU e-mail account or the e-mail system included in D2L to communicate academic information to your instructor.
- Able to attach and retrieve attached files via email
- Able to use a Web browser

In-class Use of Student Notebook Computers

Notebook computers may be used in the classroom, provided their use is not distracting for others.

Desire2Learn (Online Classroom)

Students can access course materials on D2L. In addition, students will be required to submit assignments through the Dropbox feature of D2L.

You can gain access to D2L, by signing on to the SWAN portal and selecting: "D2L" on the top right side. If you experience any difficulties in D2L, please email or call The HUB at TheHub@mail.clayton.edu or (678) 466-HELP. You will need to provide the date and time of the problem, your SWAN username, the name of the course that you are attempting to access, and your instructor's name.

Changes or additions to this syllabus can be made at the discretion of the instructor at any time.

Last update: August 15, 2016
