

Biology 360 - General Ecology Class Syllabus, Spring 2012

Lecture: M-W 1:30-2:45 pm, Salazar Hall C141
Lab: M OR W 10:30 am-1:00 pm ASCB 261
M 3:00 pm-5:30 pm ASCB 261

Instructor: Dr. Kirsten Fisher. ASCL 393, x 2089; kfisher2@calstatela.edu
Office hours: Tuesdays: 9:30 am - 12 pm and by appointment
Lab Instructor: Amber Paasch. ASCL 351; helloamberpaasch@gmail.com
Office hours: Mondays: 10:00 am – 10:20 am
Cindy Kha, ASCL XXX; ckha2@calstatela.edu

Required Text: Ecology SimUText; available online or at the CSULA Bookstore

Course Overview: Simply defined, Ecology is the relationship between organisms and their environment, and this relationship is seen in the distribution and abundance of organisms in nature. Patterns of organisms' distribution and abundance, in both space and time, are complex, and many factors shape these patterns. Therefore, Ecology is multidisciplinary and ecological theory is highly synthetic. Ecological research draws upon statistics, behavioral science, physiology, genetics, and even physics to describe the structure and function of individuals, populations, communities, and ecosystems.

Objectives: You will learn the basic theories explaining the distribution and abundance of organisms and the experimental evidence supporting these theories. To better understand the link between evidence and theory, you will learn about the scientific method, as well as data analysis and interpretation. You will conduct research and statistically analyze the results in the computer lab. Concepts introduced in lecture will be illustrated with examples shown on field trips and in computer simulations in the lab. Throughout the course, you will also learn how humans are affecting natural populations and the possible long-term consequences of this impact.

Grading Policy: Your grade will be based on point totals from exams, participation and laboratory exercises.

Point values for assignments are as follows:

In-class activities.....	40
Lab exercises.....	50
Participation.....	10
Midterm examination	50
<u>Final examination</u>	<u>100</u>
TOTAL	250

Grading will be based on a percentage of total points, as follows:

93-100% = A	80-82% = B-	68-69% = D+
90-92% = A-	78-79% = C+	63-67% = D
88-89% = B+	73-77% = C	60-62% = D-
83-87% = B	70-72% = C-	<60% = F

In-class activities, typically worth 5 points, will give you the opportunity to actively apply some of the concepts we cover in the class. Since activities will be based on concepts covered in the text, it is *critical* that you come to class prepared, having completed the assigned reading for that day. Activities will typically be turned in at the end of the class period; some may require you to upload or enter your work into Moodle after class. *Since participation and interaction with your peers is a major component of these activities, they cannot be made up if you miss class. Your lowest activity score will be dropped – if you miss an in-class activity, this will count as your lowest score.*

Exercises, typically worth 5 points, are assigned in the lab sections, and are designed to further illustrate the concepts and methods introduced in the text and lectures. Most lab and field sessions will have an associated exercise, and each exercise must be submitted by the end of the lab or field trip session (unless otherwise noted). No makeup laboratories or field trips will be given, and late exercises will not be accepted, except in the case of valid and well-documented excuses.

Participation in the labs and field trip is required, and forms part of your grade (10 points). Participation entails signing a roster at the beginning of each lab or field trip (timely arrival is mandatory), and fully participating in the scheduled activity. Since the class schedule is set in advance, conflicts with outside employment will not be accepted as a valid excuse for absence from the field trip.

Exams will reflect the material covered in the lectures, labs and field trip, as well as any assigned reading. Exams will be composed of short answer, short essay, and problem solving questions. There will be one midterm and one final exam. Make-up exams will be given only for absences with valid, documented excuses. The final exam is not cumulative, but will instead emphasize material presented after the midterm. It is essential that you attend all the lectures, as exams emphasize lecture material. *Reasonable accommodation will be provided to any student who is registered with the Office of Students with Disabilities and requests needed accommodation.*

Other requirements: Each student is expected to have an AD account and access to the myCSULA campus portal. Class materials will be made available on the course Moodle site, accessible through the myCSULA portal.

Academic honesty: Students are expected to abide by the University's Academic Honesty Policy, (<http://www.calstatela.edu/academic/senate/handbook/ch5a.htm>). Students who violate this policy will be subject to disciplinary action, and may receive a failing grade in the course for a single violation. Students are expected to do independent work on all exams and written assignments; copying from each other or from any other source without proper attribution will be considered plagiarism.

Instructions for online purchase of the Ecology SimUText are pasted below. Once you purchase a subscription for the class SimUText, you can access it from any computer with the program software installed on it. This could be your home computer or laptop: the SimUText software will also be installed on laptops for use in several of the Ecology labs.

Please follow the instructions below to subscribe to SimUText for your **General Ecology SP12** class at **California State University, Los Angeles**.

1. To subscribe to your SimUText please visit:
<https://simutext.com/student/pages/Welcome.jsp?accesskey=HXSg-YrJC-uzhE-y5PD-ndrQ>
2. You will need to supply your email address as a login name, your name and student id, and select a password.
3. Should you encounter a problem during registration, the access key for this course is **HXSg-YrJC-uzhE-y5PD-ndrQ**.
4. Follow the remaining instructions to subscribe to your SimUText and download the software you will need.

If you experience any difficulties registering or downloading and installing the software, please visit the [SimUText Support FAQ pages](#).

If your questions are not answered, use the link on those pages to email SimUText technical support.

Biology 360 Lecture and Lab Schedule – Spring 2012

Note that dates, topics and activities may change. Any changes to the schedule will be announced in class or in labs and posted online on the class Moodle site; it is the responsibility of the student to remain informed of any announced schedule changes.

Week-Date	Lecture Topic	Lab Topic	Chapter Reading
1 – Apr 2	Course Introduction – What is Ecology?	Lab check-in and introduction	--
1 – Apr 4	Adaptation, Natural Selection, and Sexual Selection		Evolution for Ecology, Sect. 1,2
2 – Apr 9	Genetics and Evolution	Computer Lab: Finches & Evolution	Evolution for Ecology, Sect. 3,4
2 – Apr 11	Biomes, Physiological Trade-offs, and Acclimation		Biogeography and Conservation, Sect. 4 Physiological Ecology, Sect. 1,2
3 – Apr 16	Physiological Ecology: Homeostasis & Metabolism	Photosynthesis Simulation	Physiological Ecology, Sect. 3,4
3 – Apr 18	Life History		Life History, Sect. 1-3
4 – Apr 23	No Lecture this week – Monday labs to Eaton Canyon	Eaton Canyon Field Trip	<i>Handouts on moodle</i>
4 – Apr 25	No Lecture this week – Wednesday labs to Eaton Canyon		<i>Handouts on moodle</i>
5 – Apr 30	Population Growth	Set up UVR damage experiment.	Population Growth, Sect. 1-3
5 – May 2	Metapopulation Dynamics, Midterm Review		Population Growth, Sect. 4
6 – May 7	Midterm #1	Analysis of UVR damage data	
6 – May 9	Competition: Intraspecific Competition		Competition, Sect. 1,2
7 – May 14	Competition: Modeling Interspecific Competition	Computer Lab: Niche Wars; Discussion of the plant competition experiment	Competition, Sect. 3
7 – May 16	Species Interactions: Predation, Herbivory, and Parasitism		Predation, Herbivory, & Parasitism, Sect. 1-3
8 – May 21	Facilitative Interactions	Collect and analyze plant competition data	
8 – May 23	Community Diversity and Ecological Succession		Community Dynamics, Sect. 1
9 – May 28	No Class – Memorial Day Holiday	No Labs this week	
9 – May 30	Trophic Structure & Community Stability		Community Dynamics, Sect. 2-4
10 – Jun 4	Biological Consequences of Climate Change	Computer Lab: Keystone Predator	Climate Change, Sect. 4
10 – Jun 6	Global Change and Ocean Ecosystems		
Jun 12	Final Exam – 1:30-4:00 pm		