

General Ecology 340

(Section 001 – Lecture; Sections 001 & 002 Lab)

Location: Lecture LDB 219; Lab LDB 136 Mo. and 130 We.

Time: MWF 10:00-10:50am

Credit Hours: 4

Instructor: Dr. Chad Hargrave

Office: LDB 100B

Lab: LDB 102

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Email (preferred contact): cwhargrave@shsu.edu

Office Hours: M-F: 8:30-10:00am; or by appointment

BlackBoard and Email: I will communicate with the class using email via Blackboard (BB). Thus, I expect you to check your email regularly for information regarding the class. Missing an email announcement is not an excuse for missing an assignment. Moreover, I will post general information about assignments, tests, and labs on BB. It is your responsibility to obtain these documents.

Course Description and Objectives: Ecology lecture will introduce the major ecological principles, concepts, and classical hypotheses dominating the field of ecology. As an introductory general ecology course, students should leave with a thorough understanding of this scientific field, how ecologists conduct research, and the importance of general ecological knowledge. Moreover, this class will help develop critical thinking, giving students the tools necessary to link ecological patterns/processes to current human activities.

Prerequisite: Minimum grade of C in BIO 161/111, 162/112

Text: *Ecology – Concepts and applications*; Fourth Edition; Manuel C. Molles Jr.

Attendance: Attendance in this class and laboratory is mandatory, expected, and often is directly correlated with a passing grade. If you want to understand and learn ecology, don't miss class or lab.

Absence and Make-up Policy: Any points for assignments, participation, or exams missed as a result of an absence cannot be made-up. The only exception is if the absence is planned and approved by the instructor at least 14 days prior to the date of absence. In this case an alternative assignment will be given and turned in before the absence.

Class Drop: 5 September 2007 – Last day to drop without a “Q” and receive 100% refund;
10 October 2007 – Last day to drop without a “F”.

Academic Dishonesty: I expect all students to maintain honesty and integrity in this class. Any student found guilty of dishonesty will be subject to disciplinary action. Academic dishonesty includes cheating on exams, copying and/or pasting text directly from the internet (i.e., plagiarism), etc. For a complete listing of the university policy, see:

<http://www.shsu.edu/administrative/faculty/sectionb.html#dishonesty>

Students with Disabilities: Any student with a disability that prevents participation in any class activity or assignment should immediately contact the instructor so that arrangements can be made to ensure that participation and achievement opportunities are not impaired.

Visitors in the Classroom: Visitors (i.e., not registered students) attending the class must be approved by the instructor, and must not cause any disruption to registered students.

Audit: You must have the instructor's permission to audit this course, and auditing students must apply through the Registrar's office.

Lecture Tests (200 pts): There will be eight 25 point tests given every 2 weeks. These short tests will vary in format, from multiple-choice, short answer, to essay, and will test your progress and understanding of lecture material.

Final Exam (100 pts): A comprehensive final, testing basic understanding and assimilation of lecture material will be given Monday 10 December 2007 at 11:00 am. Format of the final will resemble lecture tests.

Lab Objectives: The mandatory laboratory portion of this class will reinforce, using a hands-on approach, the 4 major components of ecology (i.e., the organism, population, community, and ecosystem). Research addressing each topic will be conducted in Harmon Creek, a stream located at the SHSU field station. This means each student should dress appropriately. No sandals or flip-flops. Rather, each student should purchase an inexpensive pair of rubber boots or hip waders. Boots, long pants and long-sleeve shirts are ideal for field work. There are venomous snakes, ticks, and chiggers at the field station, so proper attire is necessary.

Lab Presentation (50 pts): Each lab section will be divided into 4 groups. Each group will give a single powerpoint presentation over one of the 4 areas of major studies conducted this lab (to be assigned randomly). The presentation will be graded as a group, including overall effort, quality of the visual aids, effectiveness of verbal communication, introduction and background to the topic, presentation of data, summary of results, and group cooperation.

Paper (150 pts): Every student will write a scientific paper about the ecology of Harmon Creek (following the format for the journal *Ecology*). This paper will be 20 pages maximum including cover page, graphs, tables, and literature cited. We will write the paper throughout the semester in small sections based on data collected from each of the 4 studies. I will grade and edit each section separately, and assign an initial percentage (out of 100) for each section. The initial grade for the paper will be the average of all sections written. For example, if you averaged 50% on all sections, your initial points for the paper will be 75. However, you will be allowed and expected to revise each section of the paper for up the half of the percentage points deducted from the original draft. Thus, if you edited all sections of your 50% paper perfectly, you would increase your final paper grade to 75% or 112.5 total points. Each section must be submitted via digital dropbox in BB by the due date and time, and you must submit your paper to me as a Microsoft Word document (.doc).

Additional Assignments (50 pts): Additional assignments will be given sporadically throughout the semester to emphasize specific concepts, theories, etc.

Grading: Grades will be assigned based on the following point system: A = 495-550 points, B = 440-494 C = 385-439; D = 330-384; F = 0-329. There will be no curve and no extra credit.

Assignment	Total Points	Tentative Dates
Eight Lecture Tests	200	Aug. 31, Sept. 14, 28, Oct. 12, 26, Nov. 9, 23, Dec. 6.
Final Exam	100	December 10; 11:00a-1:00p
Lab Presentations	50	Nov. 26 and 28th
Paper	150	Final Draft Due: Dec. 6.
Additional Assignments	50	
Total Points	500	

Tentative Lecture and Lab Schedule

Week	Tentative Topic
20-24 August Lab: Introduction to Harmon Creek Ecosystem (Inside)	Introduction to me and to ecology
27-31 August Lab: Organsimal Lab (Outside)	Abiotic Environment and Biomes
3-7 September (No Class or Lab 4 Sept.) No Lab	The Ecosystem Concept
10-14 September Lab: Organsimal Lab (Inside)	Organisms and the Ecosystem
17-21 September Lab: Organsimal Lab (Inside)	Organisms I - Adaptations
24-28 September Lab: Introduction to Populations (Inside)	Organisms II – Life History Theory
1-5 October Lab: Population Lab (Outside)	Populations I – Natural selection
8-12 October Lab: Population Lab (Inside)	Populations II - Structure
15-19 October Lab: Populations (Inside)	Populations III – Dynamics
22-26 October Lab: Introduction to Communities (Inside)	Communities I - Interactions
Tentative Lecture and Lab Schedule Cont...	
Week	Tentative Topic

29 October-2 November Lab: Communities (outside lab)	Communities II - Coevolution
5-9 November Lab: Communities (Inside)	Communities III – Structure
12-16 November Lab: Communities (Inside)	Communities IV – Dynamics
19 November (Thanksgiving Break 22-24 Nov.) No Lab	Biogeography
26-30 November Lab: Presentations (Inside)	Connecting it all
3-6 December	Human impacts/implications
