

# General Ecology - Biology 3410-A

## \*Lecture Syllabus, Spring 2004

Allan J. Landwer, Ph.D.

Lecture: MWF 10-10:50 a.m. Sid Richardson, Room 100

Lab: Tuesday 1 – 4:00 p.m. Sid Richardson, TBA (likely Room 100) & Field

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### *Tentative Lecture Schedule*

<b>Week (Date -- Exam)</b>	<b>Topic</b>	<b>Assignment</b>
1/12	Ecology, What is this Science?	Chapter 1
1/19	Natural History, Biomes, Soils	Chapter 2
1/26	Natural History, Biomes, Soils	Chapter 2
2/2	Life in Water	Chapter 3
<b>2/9</b>	<b>Exam I</b>	<b>Material to date</b>
2/9	Temperature Relations, Water Relations	Chapter 4, 5
2/16	Energy Relations	Chapter 6
2/23	Population Genetics & Natural Selection	Chapter 8
3/1	Populations, Distn. & Abundance	Chapter 9
3/8	<i>Spring Break</i>	
3/15	Population Dynamics	Chapter 10
<b>3/17</b>	<b>Exam II</b>	<b>Material since Exam I</b>
3/22	Population Growth, Life Histories	Chapter 11, 12
3/29	Competition, Predation	Chapter 13, 14
4/5	Exploitation, Mutualism	Chapter 14, 15
<b>4/9</b>	<b>Exam III</b>	<b>Material since Exam II</b>
4/12	<i>Easter Monday Holiday</i>	<i>Chapter 16, 17</i>
4/13	Species Abundance & Diversity, Food Webs	Chapter 16, 17
4/19* <u>Nutrient Cycling (Active Learning Assignment 4/21)</u> , Succession		Chapter 19, 20
4/26	Landscape Ecology, Geographic Ecology	Chapter 21, 22
<b>5/3 (Monday)</b>	<b>Final Exam (10:30-12:20 a.m.)</b>	<b>Material since Exam III</b>

Biology 3410 is General Ecology. It is a biology core course offering a broad introduction to ecology for the biology major or minor. Ecology is the study of the interactions between organisms and their environment. I will focus on primarily population and community ecology in this course. Laboratory is required with this course, and participation in class, on field trips, and in \*the active learning exercise is essential. Participation in a weekend camping trip is optional. Laboratory is field and lab oriented; we will take several short field trips to interesting habitat areas near Abilene. Several lab periods may be quantitative exercises in ecological methodology. Class attendance is mandatory.

*I will provide a separate laboratory syllabus in lab which starts the second week of class*

**Lecture Text:** Ecology, Concepts and Applications by Manuel C. Molles, Jr., 2<sup>nd</sup> Ed. 2002.

<http://www.mhhe.com/biosci/pae/molles/ontheweb.mhtml>

**Lab Manual:** I will provide you with handouts for the quantitative laboratory exercises before the upcoming lab period. You should purchase a field notebook to be used on field trips. This should ideally be a waterproof engineer's surveying notebook available at Abilene Reproduction.

**Lab Write-ups:** Laboratory write-ups will be due the next laboratory period following their assignment.

**Research Presentations: Students** will present a 20-minute seminar on an ecological question, which they find interesting. I will provide you with presentation guidelines, and a list of potential topics in class. You may use overheads, computer multimedia (PowerPoint) and slides if you wish to enhance your presentation.

**Exams:** Lecture exams may be short answer, multiple choice, matching, essay, and fill in the blank. I sometimes give bonus questions.

**Makeup Exams:** Makeup exams are given only for excused absences. *If you are ill then take a makeup exam (call or email me).*

You must contact me within **one** week following a missed exam in order to take a makeup exam.

**Grading:** Your course grade is based on four lecture exams {which includes the final} – (60%), and also participation (see the official University Class Attendance Policy in the Undergraduate Catalog – grade includes attendance and active learning assignment), lab notebook & write-ups, and seminar presentations (10% + 10% + 20% = 40%). I will use the following grading scale:

A: 90-100%

B: 80-89%

C: 70-79%

D: 60-69%

F: <60%

**Cellular Phones and Pagers are *NOT* allowed in the classroom – HSU Policy.**

Students will teach the Chapter on Nutrient Cycles as their active learning assignment – more information will follow in class.

*\*Any student with a professionally diagnosed learning disability and/or other professionally diagnosed disability that may affect course performance may choose to seek accommodation. If so, the student has the responsibility to notify the Office for Students with Disabilities of such at the beginning of the semester. Notification **must be** given during the first week of classes. This will allow time for documentation of the disability through the HSU Office for Students with Disabilities **670-5842** and for discussion of legitimate alternate means by which the student will be successful in the course.*