

# Syllabus

## Biology 346 – Ecosystem Ecology

### Spring 2006

#### Instructor

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#### Schedule

Lectures and discussions: 8:00- 9:20 TTh, Moody Science 302

Lab: 1:30-4:20 W, Moody Science 323

Labs may occasionally run late.

Office Hours: Wed. 3-4; Thurs. 1:30-2:30; Fri. 11:30-12:30

#### Academic Integrity Policy

No student may unfairly advance his or her academic performance or impede the performance of other students. Any activity that unfairly gives an advantage to a student or group of students is a violation of academic ethics and will be punished according to College policy. Any source of information you use for a report, paper, or presentation should be cited.

#### Readings

Available at bookstore:

Chaplin, Matson, & Mooney, *Principles of Terrestrial Ecosystem Ecology*

Additional readings will be distributed in class.

#### Grades

Exam 1	10%
Exam 2	15%
Final Exam	20%
Participation & Leading discussion	10%
Lab Reports	25%
LTERR	
Outline	4%
Written Report	8%
Oral Presentation	8%

3 exams (45% of course grade) - Exams will include material from lectures, discussions, readings, and laboratory activities. The second mid-term exam will emphasize material that was not covered on the first mid-term, but questions require integrating material discussed before the first mid-term. The final exam will be comprehensive, but will emphasize material presented after the second exam.

Long Term Ecological Research (LTER) site reports (25% of course grade) - Details of this project will be presented in lab. Components of your LTER report will include an outline, a written report covering the background and an oral presentation of a proposed research project at your selected site.

Participation and leading discussion (10%) – Success of the course will depend on your active engagement. Plan to be called on during class to summarize or comment on the assigned readings.

I will also have each student lead class discussion on selected journal articles. Discussion leaders AND participants will receive participation grades.

Lab reports (25%) – specific details for write-ups will be distributed in labs. We will be collecting data from the field, analyzing it in the lab, and then interpreting the results.

Letter grades as defined in the Austin College Bulletin are:

- A Unusual and superior achievement
- B Intelligent, articulate achievement, above-average in fulfilling course requirements
- C Passing work, representing graduation average
- D Passing work below the standard required for graduation
- F Failure without privilege of re-examination
- U Unsatisfactory work

### **Late Policy**

Work submitted late will be reduced 1/3 of a letter grade for each day. In other words, an assignment submitted one day late that would have received an A will receive an A-. An assignment 3 days late that would have received a B will receive a C.

### **Fields Trips**

Several lab activities will be held in the field. You should wear comfortable clothes that you would not mind getting dirty. Recommended items include: boots, long pants, a long sleeve shirt, a hat, sunglasses, and water to drink. If the weather is cool or cold, dress in layers and dress more warmly than you think is necessary. You will need a notebook and a pencil. Depending upon the weather, you may also want to bring rain gear. We will not go out in lightning, but may go if it is just raining lightly.

Trips to the field site will depart campus promptly at 1:30 and will generally return by 4:20. However, field trips may occasionally run late. Because we only have 3 hours for field trips, we will not wait for latecomers.

### **Attendance**

If other activities will require you to miss a lab, discussion, or an exam, please let me know ahead of time. I reserve the option to drop you from the course if you miss class frequently or frequently disrupt class sessions with late arrivals.

Date	Lecture Topic	Reading
31-Jan	Introduction & Ecosystem Concept	Ch. 1
2-Feb	Climate Systems	Ch. 2
7-Feb	Geology & Soils	Ch. 3
9-Feb	Geology & Soils	
14-Feb	H <sub>2</sub> O & Energy Budget	Ch. 4
16-Feb	H <sub>2</sub> O & Energy Budget	
21-Feb	Carbon Input	Ch. 5
23-Feb	Carbon Input	
24-Feb	Review (optional) time to be determined	
28-Feb	<b>Exam 1</b>	
2-Mar	Terrestrial Production	Ch. 6
7-Mar	Terrestrial Production	
9-Mar	Terrestrial Decomposition	Ch. 7
14-Mar	Terrestrial Decomposition	
16-Mar	Terrestrial Nutrient Cycling	Ch. 9
28-Mar	Terrestrial Nutrient Cycling	
30-Mar	catch-up day	
4-Apr	Trophic Dynamics	Ch. 11
6-Apr	Trophic Dynamics	
11-Apr	Community Effects	Ch. 12
13-Apr	Community Effects	
17-Apr	Review (optional) time to be determined	
18-Apr	<b>Exam 2</b>	
20-Apr	Temporal Dynamics	Ch. 13
25-Apr	Temporal Dynamics	
27-Apr	Landscape Heterogeneity	Ch. 14
2-May	Global Biogeochemical Cycles	Ch. 15
4-May	Synthesis; Evaluations	
8-May	Review (optional) time to be determined	
12-May	<b>12-2 Final Exam</b>	

Assignment Dates – Exam dates and LTER project due dates are firm; data analysis and lab write-up due dates will only be changed if there is a problem collecting the data.