

**ECOLOGY AND EVOLUTION**  
**Biology 349/549**  
**Syllabus**  
**Fall 2013**  
**G. H. Adler**

<b>Week</b>	<b>Topic</b>
<b>INTRODUCTION</b>	
3-6 Sep	Syllabus, grading, course overview; An introduction to ecology <i>Read Chapter 1 (pp. 3-21)</i>
<b>ORGANISMAL ECOLOGY</b>	
9-13 Sep	Population genetics <i>Read Chapter 2 (pp. 25-43)</i>
16-20 Sep	Natural selection, speciation, and extinction <i>Read Chapter 3 (pp. 45-73)</i>
23-27 Sep	Behavioral ecology <i>Read Chapter 4 (pp. 75-99)</i>
<b>PHYSIOLOGICAL ECOLOGY</b>	
30 Sep-4 Oct	<b>Lecture Exam 1, Mon. 30 September</b> Temperature; Water; Nutrients <i>Read Chapters 5, 6, &amp; 7 (pp. 101-137)</i>
<b>POPULATION ECOLOGY</b>	
7-11 Oct	Demographic techniques and population patterns; Life tables and demography <i>Read Chapters 8 &amp; 9 (pp. 155-187)</i>
14-18 Oct	Population growth <i>Read Chapter 10 (pp. 188-216)</i> <b>Lecture Exam 2, Fri. 18 October</b>
<b>SPECIES INTERACTIONS</b>	
21-25 Oct	Competition and coexistence; Facilitation <i>Read Chapter 11 &amp; 12 (pp. 219-265)</i>
28 Oct-1 Nov	Predation; Herbivory; Parasitism <i>Read Chapters 13, 14, &amp; 15 (pp. 267-327)</i>

## COMMUNITY ECOLOGY

4-8 Nov Species diversity; Species richness patterns  
*Read Chapter 17 & 18 (pp. 351-389)*

11-15 Nov Species richness and community services  
*Read Chapters 19 (pp. 391-410)*

18-22 Nov Succession; Island biogeography  
*Read Chapters 20 & 21 (pp. 413-444)*  
Thanksgiving

## BIOMES

25-29 Nov Terrestrial biomes; Marine biomes, Freshwater biomes  
*Read Chapters 22, 23, & 24 (pp. 447-515)*  
**Lecture exam 3, Wed. 2 Dec. after Thanksgiving, through Island biogeography)**

## ECOSYSTEMS ECOLOGY

2-6 Dec Food webs and energy flow; Biomass production  
*Read Chapters 25 & 26 (pp. 517-560)*

9-13 Dec Biogeochemical cycles  
*Read Chapter 27 (pp. 563-579)*  
**Lecture Exam 4, Fri. 13 Dec.**

---

## GRADING

### *Basis of grade*

#### Undergraduate students

400 total points

4 lecture exams, 100 points each. **Lecture exams cannot be taken after the scheduled date except in the case of documented medical or personal emergencies, job interviews, etc.** In the case of legitimate absences, a make-up exam will be given but will not be the same as the regularly-scheduled exam. Exams can be taken early, in which case they will be the same as or nearly the same as the regularly-scheduled exams.

#### Graduate students

500 total points

4 lecture exams, **PLUS** one 10-page paper with 15 citations from the primary literature on any topic in ecology or evolutionary biology.

### *Grading scale*

90-100 A

80-89.9 B

70-79.9 C

60-69.9 D

<60 F

Grades of A-, B+, B-, C+, C-, D+, and D- may also be given.

**TEXT**

Stiling, P. 2012. Ecology: global insights and investigations. McGraw Hill, New York, NY. **REQUIRED.**

**OFFICE HOURS** (room HS-37, phone 424-3068, email [adler@uwosh.edu](mailto:adler@uwosh.edu))

Monday, Wednesday, Friday 9-10 AM or by appointment or by chance encounter.