

ECOLOGY AND EVOLUTION

Biology 349/549

Syllabus

Fall 2012

G. H. Adler

Week	Topic
INTRODUCTION	
4-7 Sep	Syllabus, grading, course overview; An introduction to ecology <i>Read Chapter 1 (pp. 3-21)</i>
ORGANISMAL ECOLOGY	
10-14 Sep	Population genetics <i>Read Chapter 2 (pp. 25-43)</i>
17-21 Sep	Natural selection, speciation, and extinction <i>Read Chapter 3 (pp. 45-73)</i>
24-28 Sep	Behavioral ecology <i>Read Chapter 4 (pp. 75-99)</i>
PHYSIOLOGICAL ECOLOGY	
1-5 Oct	Lecture Exam 1, Mon. 1 October Temperature; Water; Nutrients <i>Read Chapters 5, 6, & 7 (pp. 101-137)</i>
POPULATION ECOLOGY	
8-12 Oct	Demographic techniques and population patterns; Life tables and demography <i>Read Chapters 8 & 9 (pp. 155-187)</i>
15-19 Oct	Population growth <i>Read Chapter 10 (pp. 188-216)</i> Lecture Exam 2, Fri. 19 October
SPECIES INTERACTIONS	
22-26 Oct	Competition and coexistence; Facilitation <i>Read Chapter 11 & 12 (pp. 219-265)</i>
29 Oct-2 Nov	Predation; Herbivory; Parasitism <i>Read Chapters 13, 14, & 15 (pp. 267-327)</i>

COMMUNITY ECOLOGY

5-9 Nov Species diversity; Species richness patterns
Read Chapter 17 & 18 (pp. 351-389)

12-16 Nov Species richness and community services
Read Chapters 19 (pp. 391-410)

19-23 Nov Succession; Island biogeography
Read Chapters 20 & 21 (pp. 413-444)
Thanksgiving

BIOMES

26-30 Nov Terrestrial biomes; Marine biomes, Freshwater biomes
Read Chapters 22, 23, & 24 (pp. 447-515)
Lecture exam 3, Wed. 28 Nov. after Thanksgiving, through Island biogeography)

ECOSYSTEMS ECOLOGY

3-7 Dec Food webs and energy flow; Biomass production
Read Chapters 25 & 26 (pp. 517-560)

10-14 Dec Biogeochemical cycles
Read Chapter 27 (pp. 563-579)
Lecture Exam 4, Fri. 12 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)

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