

# **FUNDAMENTALS OF ECOLOGY (EVSC 3200)**

## **Spring 2012**

**T-Th 11:00 – 12:15, Room 107, Clark Hall**

**Instructor: Michael Pace**

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**Office Hours:** Monday/Thursday 1:30-2:30 PM and by appointment

**Text:** Elements of Ecology 7<sup>th</sup> ed., Smith & Smith

**Tests and Grading:** There are four tests (see dates on syllabus), each of which will count as 25% of the total grade. Note the fourth test will be given during the final examination period for this course and will focus on the last section of the course as well as a few synthetic questions. Make up tests can be arranged if you are ill or you are participating in a University sponsored event. Please respect this opportunity, and if a test must be missed, notify the Instructor as soon as possible. Grading will be based on your final course average as follows: > 98 = A+; 94-98 = A, 90-94 = A-, 88-90 = B+, 84-88 = B, 80-84 = B-, 78-80 = C+, 74-78 = C, 70-74 = C-, 65-70 = D, < 65 = F

**Attendance:** Attendance is required. My experience teaching this course indicates those who attend each class will learn the material best. To reward attendance I will give 4 pop quizzes during the course of the semester. These quizzes will be scored: no answer = 0, incorrect answer = 1 point, correct answer = 2 points. Points earned on quizzes will be added to your most recent test grade.

**Lecture Presentations:** I will post the lecture Powerpoints on the class Collab site and try to do so at least 1 hour before class. Posting the lectures is done to aid you in following lectures during class and for later study not so you can skip class.

**Lab:** Fundamentals of Ecology Laboratory (EVSC 3201) operates as a separate class and does not need to be taken simultaneously with this course (note, however, EVSC majors are required to take EVSC 3201). We do not coordinate the presentation of concepts and materials in lecture and lab because the schedule for the lab is driven by field trips which are best done during the warmer weather period of the semester.

**Distractions:** Please turn off and do not use cell phones during class. Students are allowed to use computers to extract lecture presentations and to make notes. Please close other programs and do not use computers except to support your work in class.

**Readings:** The course topics follow the text and generally one chapter from the text is assigned for each class. Please read chapters before class.

**Syllabus:**

<u>Date</u>	<u>Topic</u>	<u>Reading</u>
Jan. 19, Thursday	Introduction: The Science of Ecology	Chapter 1
Jan. 24, Tuesday	Ecology & The Physical Environment	Chpt. 2, 3, 4
Jan. 26, Thursday	Ecological Genetics: Adaptation & Natural Selection	Chapter 5
Jan. 31, Tuesday	Plant Adaptations	Chapter 6
Feb. 2, Thursday	Animal Adaptations	Chapter 7
Feb. 7, Tuesday	Life Histories & Reproduction	Chapter 8
Feb. 9, Thursday	Test 1	
Feb. 14, Tuesday	Populations: Distribution, Density, Demography	Chapter 9
Feb. 16, Thursday	Populations: Growth	Chapter 10
Feb. 21, Tuesday	Populations: Regulation	Chapter 11
Feb. 23, Thursday	Metapopulations	Chapter 12
Feb. 28, Tuesday	Competition	Chapter 13
Mar. 1, Thursday	Predation	Chapter 14
Mar. 6 & 8	No Class, Spring Break	
Mar. 13, Tuesday	Disease Ecology & Mutualisms	Chapter 15
Mar 15 Thursday	Test 2	
Mar. 20 Tuesday	Community Structure: Dominance and Diversity	Chapter 16
Mar. 22 Thursday	Community Interactions: Food Webs	Chapter 17
Mar. 27 Tuesday	Community Dynamics: Succession	Chapter 18
Mar. 29 Thursday	No Class	
Apr. 4 Tuesday	Landscape Ecology and Spatial Heterogeneity	Chapter 19
Apr. 6 Thursday	Ecosystems: Primary and Secondary Production	Chapter 20
Apr. 10 Tuesday	Decomposition and Nutrient Cycling	Chapter 21
Apr. 12 Thursday	Test 3	
Apr. 17 Tuesday	Biogeochemical Cycles	Chapter 22
Apr. 19 Thursday	Patterns of Biodiversity	Chapter 26
Apr. 24 Tuesday	Human Ecology	Chapter 27
Apr. 26 Thursday	Biodiversity and Conservation	Chapter 28
May 1 Tuesday	Global Ecology	Chapter 29
May 5, Saturday	Test 4	