EBIO 2040- Principles of Ecology- Spring 2006

Lecture Instructor: Dr. Alexander Cruz
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Course Web Page: http:www.colorado.edu/eeb/courses/2040cruz

Course Description

Lecture - TU and TH, 2 -3:15 PM, Ramaley NIB23. This course provides an overview of ecology, ranging from behavioral ecology to biogeochemical ecology. Broad topics emphasized in this course are populations and communities (including species interactions), ecosystem and landscape ecology, biomes (representing reciprocal interactions between the biota and the physical earth), and conservation biology. The lecture portion is worth 75% of the course.

Laboratory. Laboratory work is an important part of this course. Labs are designed to provide first-hand study of some of the concepts being presented and to illustrate other material. Further information will be provided during the laboratory period. The laboratory portion is worth 25% of the course. ***Labs begin the week of Jan. 23***

Prerequisites: EPOB/EBIO 1210-1220-1230-1240 (General Biology 1 and 2), or EPOB/EBIO 1030-1040-1050 (Biol. - Human Approach).

Time and Place: TU and TH2 to 3:15 PM, Ramaley NIB23.

Textbook: Lecture -Smith & Smith 2003. Elements of Ecology, **5th Edition**
Lab - ***Lab Manual will be handed out in labs***.

Examination and Grading

What will the exam test? Understanding, ability to synthesize, and to apply knowledge in a new context. Test will consist of discussion questions, short answers, completion, and true and false. Test material will come from both lectures and textbook. Lecture Examinations contribute 75% of the course grade; performance in laboratory constitutes 25% of the total grade. There will be 3 examinations, 100 points each. Grades will be award approximately as follows A = 90% and

above; B = 89-89%; C = 70 - 79%; D = 60-69%; F = ≤ 59%. Plus and minus grades will be used to reward students' performance appropriately.

Administrative Reminders

1. If you qualify for accommodations because of a disability, please submit to Professor Cruz a letter from Disability Services in a timely manner so that your needs may be addressed. Disability Services determines accommodations based on documented disabilities. (303 492 8671, Willard 322, www.Colorado.EDU/disability services).

2. Teaching faculty shall make every effort to reasonably and fairly deal with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. I encourage you to notify me of anticipated conflicts as early in the semester as possible so that there is adequate time to make necessary arrangements.

3. Students at CU-Boulder are bound by a student-initiated honor code. "Honor is acting with integrity when no one is looking." As members of the CU-Boulder community, we will abide by in the spirit and letter of this honor code.

4. Sexual harassment has no place on the University Campus or anywhere else. The CU-Boulder policy on sexual harassment is available on-line.

5. Please know and understand the Campus classroom behavior policy. As members of the CU-Boulder community, we will abide by the spirit and letter of this policy, which is available on line.

Ecology Schedule I (EBIO 2040) - Spring 2006

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Jan 17 (TU) L. 1. Introduction and Overview
Chap. 1 - The Nature of Ecology

Jan 19 (TH) L. 2. Natural Selection and Speciation
Chap. 2 - Adaptation and Evolution

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Jan 24 (TU) L. 2. Natural Selection & speciation, & Biotic interactions

Jan 26 (TH) L. 3. Biotic Interactions - Interspecific Competition
Niche box: 28-29.
Chapter 17:(Process Shaping Communities):329-347.
Chapter 14 (Interspecific Competition):269-288.

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Jan 31 (TU) L. 3. Interspecific Competition - cont.
L. 4. Predation
Chapter 15 (Predation):289-308.

Feb 2 (TH) L. 4. Predation (cont). -
L. 5. Parasitism
Chap. 16 (Parasitism and Mutualism):309-318).

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Feb 7 (TU) L. 5. Parasitism - cont
L. 6. Parasitism

Feb 9 (TH) L. 6. Parasitism - cont.
L. 7. Mutualism
Chap. 16 (318-328).

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Feb 14 (TU) L. 7. Mutualism - cont.
L. 8. Intraspecific Interactions
Chap. 11: Intraspecific Population regulation (pp. 203-217)

Feb 16 (TH) L. 8. Intraspecific Interactions - cont.

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Feb 21 (TU) **First Exam**