

INSTRUCTOR: Robert Colombo, Ph.D. **OFFICE:** LS 2027 **PHONE:** 581-3011
OFFICE HOURS: 3:00-4:00 MWF or by appointment **E-MAIL:** recolombo@eiu.edu
Meetings: LS 3071, M, W, F 10:00-10:50

Description:

This course is designed to introduce students to the field of population ecology. In this course, we will investigate how to populations grow, interact, and spread. This course is largely quantitative and students will be given the tools to model population growth in both excel® and populus using classic models. Learning will take place through a combination of lectures, sample exercises, and case studies.

Goals of the Course:

1. Familiarize students with classic population ecology models
2. Prepare students for advanced study in population modeling

Objectives:

At the conclusion of this course students will have been introduced to:

- Some pertinent primary literature
- Density Independent Models
- Density Dependent Models
- Demographic and Environmental Stochasticity
- Age and Stage Structured Models
- Matrix Algebra
- Sensitivity and Elasticity of Matrix Models
- Population Viability Analysis
- Harvesting Populations
- Interspecific Competition Models
- Predation Models
- Host-Parasite Models
- Metapopulation dynamics

Readings:

Several required readings will be made available to the students during the course of this semester. They will be a combination of peer reviewed literature and book chapters. Book chapters will come from the following text.

1. Gotelli, N.J. 2001. A Primer for Ecology 3rd edition. Sinauer Associates
 - a. These books will be provided to you for a deposit of \$10.00. If at the end of the semester you would like to return the book I will return your \$10.00.

Grading:

Your grade will be based on the accumulated score of 100 percentage points, where: A \geq 90%; B = 80-89%; C = 70-79%; D = 60-69%; F < 60%. There will be three in class exams during this class two hour midterms and a synthetic final. During the course of the semester 5

home work assignments will be assigned. Additionally, each student will be required to do a presentation and lead a discussion regarding a paper in population ecology.

Assingments	Points
Homework Assignments	50
Literature Discussion	50
Midterm I	100
Midterm II	100
Final	200
Total	500

Exams: Lecture exams will be comprised of short answer, matching, multiple choice and essay. Material for the exams will be derived **EXCLUSIVELY** from the **LECTURES**. **THE FINAL EXAM WILL BE COMPREHENSIVE**. Missing an exam without prior consent from the instructor will result in a grade of ZERO for the exam. **Lecture Attendance:** Although I will not take attendance, all exam questions will be based solely on lecture material.

Disabilities: Any student with a disability is asked to contact me so that we can discuss any accommodations. Also, the university has services available should you need them:

Disability Services: 581-6583

Career Services: 581-2412

Learning Assistance: 581-6696

Counseling Center: 581-3413

Academic integrity:** "It is assumed that students will honor the tradition of academic honesty. Should incidents of suspected classroom cheating or plagiarism occur, however, the following steps will be taken:

1. The instructor who has witnessed academic dishonesty or who has other evidence that academic dishonesty has occurred will confront the student to inform him/her of the allegation. Time permitting; the instructor will contact the Office of Student Standards prior to talking with the student. If the student admits the violation, the instructor will assess an appropriate academic penalty and will inform the Office of Student Services using a Notation of Academic Misconduct form.
2. If the student disputes the allegation, or if a sanction greater than a failing grade for the course is warranted, a hearing will be provided by the Office of Student Standards in accordance with provisions of the Student Conduct Code. If as a result of the hearing the student is found responsible for the violation, the instructor will assess an appropriate academic penalty. Other sanctions such as disciplinary probationary status or separation from the institution can be imposed by the University's disciplinary system. Full conditions and explanations are cited in the Student Conduct Code. A student accused of academic dishonesty in a course may not drop the course until such time as disciplinary action, if any, is concluded. A grade (A, B, C, D, F, CR, NC, AU, I, W, X) may be

changed to reflect the disciplinary sanction, if any, imposed as a result of academic dishonesty. In the event that the alleged violation occurs at the end of a term, no grade shall be assigned pending conclusion of the disciplinary process. All students are subject to the provisions of the University's Student Conduct Code, available online at www.eiu.edu/~judicial."**

** from http://catalog.eiu.edu/content.php?catoid=17&navoid=435#acad_inte

Cell Phones: Please refrain from using cell phones during the class and the lab. Make sure that your cell phone is set to all sounds off during the class periods.