

# Conservation Biology

Biology 322, Union College  
Syllabus, Spring 2015

MWF 9:15-10:20 NWSE 222; Lab Mon 1:55-4:45 S&E S101

Office Hours: W 1:30-2:30 or by appointment

Instructor: Dr. Steven Rice; 121 Wold; x-6243, rices@union.edu

**Synopsis:** Natural ecosystems have suffered from declining biodiversity and encroaching human development. In this course, you will examine how these alterations impact populations and ecosystems and will evaluate management strategies designed to facilitate long-term sustainability. Topics include genetics and population biology of rare species, threats to biodiversity and ecosystems management.

**Objectives:** 1) Develop proficiency with the scientific fields of ecology and evolutionary biology to the degree that allows students to understand and evaluate management initiatives and policies within local, national, and international arenas; 2) Appreciate the dynamic nature of science as it relates to the development and application of scientific knowledge; 3) Understand science as a process influenced by cultural agendas; 4) Assess the uses and limitations of modeling to develop and explore scientific hypotheses and to evaluate management plans; 5) Improve analytical thinking and writing ability.

**Structure:** Each week we will meet for three lectures and a lab. In general, lectures will be used to introduce, review and expand upon the material in the readings. It is essential that you do the required reading-**you are responsible for learning from the text and other readings, even if the material is not reviewed in class.** Class meetings will also be devoted to discussions and other exercises where models, experiments, and management strategies are critically evaluated. In addition to reinforcing the lecture content, the laboratories will provide experience with conservation biology in practice.

**Course Requirements:** All work must be completed and handed in to receive a grade for the course. You may make up a test only in the case of a documented emergency. Note that the final exam will be given only on the scheduled date. Make your travel plans accordingly. Attendance in class and lab is expected. Missing more than two lectures may affect your grade. Labs are not to be missed and will be made up with an acceptable, documented excuse brought to the instructor's attention in a timely manner.

**Evaluation:** Grades will be assigned on a straight scale ( $\geq 93$  A,  $\geq 90$  A-,  $\geq 87$  B+, etc ....) and will be derived from the following:

Tests (2 hourly exams 17.5%; final 20%)	55%
Lab (Modeling Project 15%, Other assign. 10%)	25%
Analytical Paper (4-6 pages)	10%
Threats Presentation	5%
Class Participation	5%

**Reading:** The course requires Primack, R.B. 2014. Essentials of Conservation Biology, 6<sup>th</sup> edition. Additional primary and secondary source readings are shown in the "Topic Outline" and "References" sections. These will be available on reserve in the library or through the course Nexus site.

**Academic Honesty:** Union College recognizes the need to create an environment of mutual trust as part of its educational mission. Responsible participation in an academic community requires respect for and acknowledgement of the thoughts and work of others, whether expressed in the present or in some distant time and place. Matriculation at the College is taken to signify implicit agreement with the Academic Honor Code, available at [honorcode.union.edu](http://honorcode.union.edu). It is each student's responsibility to ensure that submitted work is his or her own and does not involve any form of academic misconduct. Students are expected to ask their course instructors for clarification regarding, but not limited to, collaboration, citations, and plagiarism. Ignorance is not an excuse for breaching academic integrity.