

Introduction to Environmental Studies - Biology
ENST/BIOL 295
M-W-F, 1-2 pm; McDonnell 162

Instructor

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Overview

A broad and integrative overview of biological aspects of environmental science focusing primarily on ecology, including behavioral, population, community, and ecosystem ecology; animal behavior; and conservation biology.

Course Website - <http://www.nslc.wustl.edu/courses/Bio295/bio295.html>

Relevant course materials and updates will be posted to the course website throughout the semester.

Textbook

e-book - <http://ebooks.primisonline.com/> - Click on the link for custom e-books and then follow the instructions to access/purchase course book.

If you want to purchase the hardcover versions, here is the relevant info:

Raven and Johnson. Biology, seventh edition. McGraw-Hill.
Cunningham and Cunningham, Principles of Environmental Science, second edition.
McGraw – Hill

Exams

There will be three in-class midterm exams and a final exam. Each of the three mid-term exams will be worth 100 points. The comprehensive final will also be worth 100 points. The final grade will therefore be based on 400 total points.

Proposed Schedule

This is a tentative guide for your class preparation. The schedule is subject to change; it is your responsibility to attend class and to keep up to date on any changes.

Date	Lecture Topic	Reading
8/27 - Wed 8/29 - Fri	Introduction to Course <u>Evolution and Natural Selection</u>	R&J Ch. 20-22
9/1 - Mon 9/3 - Wed 9/5 - Fri	Labor Day – No Class Evidence for Evolution Evolutionary Constraint	
9/8 – Mon 9/10 - Wed 9/12 – Fri	Forms of Selection Species and Speciation <u>Population Ecology</u>	R&J Ch. 24
9/15 – Mon 9/17 – Wed 9/19 – Fri	Population Distribution and Abundance Population Dynamics Population Growth	

Date	Lecture Topic	Reading
9/22 – Mon 9/24 - Wed 9/26 – Fri	Human Populations <u>Community Ecology</u> Ecological Niches	C&C Ch.4 R&J Ch.25
9/29 – Mon 10/1 - Wed 10/3 – Fri	Species Interactions Cooperation – Mutualism, Commensalism etc. Exam 1	
10/6 – Mon 10/8 - Wed 10/10 – Fri	Cooperation – con't Succession Species abundance and diversity	
10/13 – Mon 10/15 - Wed 10/17 – Fri	<u>Animal Behavior</u> Behavioral Genetics Fall Break – No Class	R&J Ch. 26
10/20 – Mon 10/22 - Wed 10/24 – Fri	Learning Communication and Social Groups Orientation and Migration	
10/27 – Mon 10/29 - Wed 10/31 – Fri	Animal Cognition <u>Behavioral Ecology</u> Foraging Behavior	R&J Ch. 27
11/3 – Mon 11/5 - Wed 11/7 – Fri	Exam 2 Spatial Dynamics Reproductive Behavior	
11/10 - Mon 11/12 - Wed 11/14 - Fri	Reproductive Behavior cont'd Evolution of Social Behavior <u>Conservation Biology</u>	R&J Ch. 31
11/17 - Mon 11/19 - Wed 11/21 - Fri	Vulnerability and Extinction Preserving Endangered Species <u>Large-scale Ecology – Global Environment</u>	
11/24 - Mon 11/26 -11/28	Ecosystem processes Thanksgiving Break	R&J Ch. 28-30
12/1 – Mon 12/3 – Wed 12/5 – Fri	Biodiversity-Why do we care Env. Conservation: Parks and Nature Preserves Open	C&C Ch. 6
12/8 – Mon 12/18 - Thu	Exam 3 Final Exam – 1-3 pm (McDonnell 162)	

