

BIOL-32400 Fall 2009

Wonderful Life: Genes, Evolution & Biodiversity



**Instructor:** [Susan Swensen](#), Associate Professor (Biology)  
Office: CNS 254 Phone: 274-3511 E-mail: [sswensen@ithaca.edu](mailto:sswensen@ithaca.edu)

**Textbook:** S. Freeman & J. Herron, 2007. Evolutionary Analysis 4<sup>th</sup> Edition.  
Pearson Education, Inc. Upper Saddle River, NJ. ISBN: 0-13-227584-8

**Description:** An upper level course in evolutionary biology that builds on information presented in the introductory biology sequence. The course covers the concepts of population genetics and the role of selection, genetic drift, and mutation in contributing to microevolutionary change, the study of adaptation and the role of sexual selection in shaping adaptation, how concepts of evolution are relevant to medicine and disease, and the conflict between evolutionary theory and creationism in society

**Learning Outcomes:** After taking the course students should:

- 1) understand the importance of evolutionary biology to science and society
- 2) be able to ask and design an approach to understanding an evolutionary question
- 3) understand how evolutionary concepts can be applied to other fields of science (e.g. conservation, medicine, ecology)
- 4) be able to distinguish religious belief from evidence-based concepts in science
- 5) be able to communicate an evolutionary concept effectively through writing and oral presentation

**Assessment of Learning Outcomes:**

Quizzes assess outcomes 1, 3 and 4, and 5. Graded exercises and homework assignments will assess outcomes 1-5. Project 1 will assess outcome 2; Project 2 assesses outcomes 1, 3 and 5.

**Grading:**

Quizzes (3 x 50 pts ea – 27% grade)	150		
Discussion leading	50	Project 2 (160 pts- 30% grade)	
Class Participation/Preparedness	50	Topic	10
Homework Assignments (3 x 10 pts ea)	30	Literature Review	25
Posting Questions to Bb (5 x 5 pts ea)	25	Paper Draft	25
		Final Presentation	50
Project 1 (75 pts- 14% grade)		Final Paper	50
Topic	5		
Literature Review	20		
Ithaca Fund Grant	50		
		<b>Total Points</b>	<b>540</b>

**Grading Scale:** A = 93-100, A- = 90-92, B+ = 87-89, B = 83-86, B- = 80-82, C+ = 77-79, C = 73-76, C- = 70-72, D+ = 67-69, D = 63-66, D- = 60-62, F < 60.

**BlackBoard (Bb):** Class schedule, readings and other important resources will be posted on Bb. Be sure to log on frequently to be aware of what is available to you there.

**Attendance Policy:** Consistent class attendance is expected. If you miss a class for any reason, it is **your responsibility** to obtain course material or to arrange alternate times to hand in assignments or take quizzes. Consistent attendance and participation are important for receiving grades above a C. Preparedness for class and participation in class are worth approximately 10% of your grade.

**Academic Honesty:** All work in this course must be your own, unless permission is granted to work in groups. Confirmed instances of academic dishonesty will result in a zero for that assignment and possible referral to the campus judicial board. Be familiar with college policy on plagiarism ([www.ithaca.edu/library/research/plagiarism.htm](http://www.ithaca.edu/library/research/plagiarism.htm)).

**Accommodations:** In compliance with Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act, reasonable accommodation will be provided to students with documented disabilities on a case-by-case basis. If you have a disability that needs special accommodation, please contact the Office of Academic Support Services for Students with Disabilities (<http://www.ithaca.edu/acssd/>) in 322A Smiddy Hall or e-mail: [acssd@ithaca.edu](mailto:acssd@ithaca.edu).

**Mental Health & Academic Success:** Diminished mental health, including significant stress, mood changes, excessive worry, or problems with eating and/or sleeping can interfere with optimal academic performance. The source of symptoms might be strictly related to your course work; if so, please speak with me. However, problems with relationships, family worries, loss, or a personal struggle or crisis can also contribute to decreased academic performance.

Ithaca College provides a Counseling Center to support the academic success of students. The Counseling Center provides cost-free services to help you manage personal challenges that threaten your well-being. In the event I suspect you need additional support, I may express my concerns, and remind you of resources (e.g., Counseling Center, Health Center, chaplains, etc.) that might be helpful to you. It is not my intention to know the details of what might be bothering you, but simply to let you know I am concerned and that help, if needed, is available.

**Online Course Evaluation:** Student feedback on teaching is very helpful. All students must submit an evaluation of this course before a grade is given at the end of the semester. The period for completing this evaluation is **November 30-December 2**. Instructions for accessing the online evaluation form will be provided before this time. If you forget, you will get a reminder from the department assistant. If you do not leave any feedback before grades are due, a grade of incomplete will be given.

**General Approach to Teaching & Class:** My goal is for us to become a community of learners: to recognize that each one of us has something important and insightful to contribute to the class. I want this course to involve much interaction and conversation. Never be afraid to ask a question, or to ask me to deviate from my course plan! Questions and comments are often better starting points for learning than lecturing. Although I do plan to lecture on some days, other days will require you prepare ahead for class (do the reading!), be willing to contribute to conversation, be open-minded, and be willing to challenge ideas or mindsets in a friendly way.