

**BIOLOGY 350A – Evolution
Spring 2006**

INSTRUCTOR: Marjorie B. Larkin
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CLASS MEETING:

Lecture Room 214 Proctor Hall East
MWF 12:30 – 1:20 pm

TEXTBOOKS: *An Introduction to Biological Evolution* by Kenneth Kardong, 1st Edition.
McGraw-Hill Publishers, 2005
The Origin of Species by Charles Darwin

PURPOSE: Biology 350 is a survey of current concepts in evolutionary biology, including Darwinian and neo-Darwinian theories, punctuated equilibrium model, modes of speciation, and molecular clock. Prerequisites: BIO 101 and 102, or BIO 111 and 112, or consent of the instructor. 3 hours credit.

ATTENDANCE: You are expected to attend all classes.

METHOD OF EVALUATION:

EXAMS: There will be 4-one hour exams which will include material from the lectures held during the time the exam covers. The exams will be weighted equally and their average will count 60% of your final grade.

READINGS AND PRESENTATIONS:

- (1) Each student will read a recent book on some current subject in evolution. The student will give an oral presentation with a visual aid or handout during a class. 15% of final grade.
- (2) Each student will study current research in the evolution of a kingdom of life using a primary research journal (Ex. Nature, Scientific American, etc.) Each student will make an oral presentation with a handout or visual aid during class. 15% of final grade.
- (3) Each student will read three evolution articles from trade publications (Ex. Discover, Time, etc.) The student will abstract and critique each article. 10% of final grade.

GRADING SYSTEM:

A = 90 – 100	C+ = 77 – 78	F = below 60
A- = 89	C = 70 - 76	
B+ = 87 – 88	C- = 69	
B = 80 – 86	D+ = 67 - 68	
B- = 79	D = 60 - 66	

4 Exams	60%
Book Presentation	15%
Research Presentation	15%
<u>Evolution Articles</u>	<u>10%</u>
	100%

Make ups: All exam make-ups must be taken within two class days. Presentations must be made during the assigned class period for full credit.

Honor Code: This course will be conducted under the Greensboro Honor Code.

COMPETENCIES ADDRESSED BY THIS COURSE ARE ON FILE IN THE DEAN'S OFFICE.

GENERAL EDUCATION OBJECTIVES:

This course fulfills the following General Education objectives:

- Reason to reach logical conclusions (#4)
- Think critically about ethics and values (#6)
- Analyze numerical data critically (#7)
- Explore and understand the natural world in a scientific fashion (#10)

Teacher Certification: Biology teacher certification majors should save at least one example of their work in this course for inclusion in their teaching portfolios.

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Date (Week of)	Topic	Readings
Week 1	The Evolution of Evolutionary Thought	Chapter 1(text) Introduction (Darwin)
Week 2	Evolutionary Time	Chapter 2 (text) Chapter 9 (Darwin)
Week 3	Emergence of Life	Chapter 4 (text)
Week 4	Diversity of Life	Chapter 5 (text)
EXAM 1 – Through Emergence of Life		
Week 5	Evidence for Evolution	Chapter 6 (text) Chapters 11, 12 (Darwin)
Week 6	Selection	Chapter 7 (text) Chapters 3, 4 (Darwin)
Week 7	Variation	Chapter 8 (text) Chapters 2, 5 (Darwin)
Week 8	Speciation	Chapter 9 (text) Chapters 8, 9, 10, 11, 12 (Darwin)
EXAM 2 – Through Variation		
Week 9	Co-Evolution	Chapter 10 (text)
Week 10	Life History Strategies	Chapter 11 (text)
Week 11	Life in Groups	Chapter 12 (text)
Week 12	Extinctions	Chapter 13 (text) Chapter 10 (Darwin)

EXAM 3 – Through Life in Groups

Week 13	Human Evolution	Chapter 14 (text)
Week 14	Human Evolution	Chapter 15 (text)
Week 15	Evolution Today	Chapter 16 (text)

ORAL PRESENTATIONS

**EXAM 4 – Through Evolution Today
(given during Exam Week)**