

# Biology 459 - 659, Evolution

## Spring, 2006

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Web site: <http://www.ndsu.nodak.edu/instruct/fawley/evolution>

Time: 12:30 - 1:50 Tuesday and Thursday

Text: *Evolution* by Douglas Futuyma, Sinauer Associates

This course emphasizes evolutionary mechanisms and covers general and selected advanced topics. Each undergraduate student will make one short presentation, prepare a short (3-4 pages, double spaced) summary of the presentation and discuss other students' presentations in class. There will be three in-class exams.

Graduate students will be expected to have a significantly higher level of participation in discussions and also meet for special presentations and discussions of primary literature articles outside of regular class time. Graduate students will also be required to write a short (5-7 page, double-spaced) paper on an evolutionary topic.

Any student who may need special accommodations for learning or who has special needs is invited to share these concerns or requests with the instructor as soon as possible.

### Grading

Presentations - 60 pts

Presentation summary - 60 pts

Presentation discussions - 40 pts

Additional participation, based on assigned readings - 40 pts

Exams - 300 pts

Total - 500 pts

Grades will be based on 90-100%, A; 80-90%, B; 70-79%, C; etc.

All work in this course must be completed in a manner consistent with NDSU University Senate Policy, Section 335: Code of Academic Responsibility and Conduct (<http://www.ndsu.nodak.edu/policy/335.htm>).

### Tentative outline

Week	Chapters	Topic
1-2	1	Introduction and historical background Assigned reading: Chapter 8
3-5	9-11	Variation and Genetic Drift Exam 1
6-8	11-14	Natural Selection
9-10	15-17	Species and Speciation Exam 2
11	18	Coevolution
12	19	Molecular Evolution
13	20	Evolution and Development
14	21	Macroevolution
15	2-3	Phylogenetics, Patterns of Evolution
May 10, 10:30		Scheduled Final Exam