

BI 445/545 EVOLUTION, M,W,F 2:00-2:50, Cordley 2113, CRN: 32744

Instructor: Michael Blouin

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Office hours: Thursday 1-2 or other times by appointment (just call or e-mail first).

Text: Freeman, S. and J.C. Herron. 2004. Evolutionary Analysis, 3rd Edition. Pearson Prentice Hall.

<u>Week of</u>	<u>Topics</u>	<u>Readings</u>
3/28	Introduction to the topic, Evidence for Evolution via natural selection	Ch. 1, 2, 3
4/4	Finish evidence for evolution Mutation, brief review Basic probability, allele and genotype freq.,	Ch. 5 p.
4/11	Hardy-Weinberg equilibrium Selection on single loci	Ch. 5
4/18	Migration, drift, inbreeding First midterm Friday 4/22	Ch. 6
4/25	Quantitative Genetics	Ch. 8
5/2	Sexual selection	Ch. 10
5/9	Kin Selection	Ch. 11
5/16	Life history evolution	Ch. 12
5/23	Speciation Second midterm Friday 5/27	Ch. 15
5/30	Memorial Day, 5/30, is a holiday TBA	
FINALS	Final Exam, FRIDAY 6/10, 7:30 AM Cordley 2113	

Grading:

Two midterms and a cumulative final. You get to drop the lowest of the three exams. Your final grade will be the average of your two best exam grades.

Final grades: A 90% B 80% C 70% D 60% F < 60%. I grade using pluses and minuses. Grades will be curved if necessary.

Exam policies:

No make up exams. *If you miss a midterm, that will be the one you drop.*
Be sure to bring a calculator to the exams.

Nobody takes the final exam early. Seriously. Plan your end-of-quarter travel accordingly.

Readings for class:

A large part of your mastery of course material must come from readings in the book. In class I will highlight the parts of each chapter I consider to be most important. You will be responsible for all material in readings except that material which I specifically exclude.

Background you must have for this course:

In this course I will assume you are already familiar with the following topics, which you should have mastered in Bi311 or in the intro biology series.

protein structure and function

DNA structure and replication

transcription, translation, including
genetic code

Basic Mendelian inheritance

Inheritance of polygenic traits
(basic quantitative genetics)

If this material is unfamiliar to you and you do not have the time to re-learn it ASAP, then you do not have the necessary background to be successful in this course! Genetics (Bi 311) is a prerequisite for Bi445. Taking Evolution before taking Genetics is a really bad idea.

Misc. info:

Last day to drop is April 8. Last day to withdraw from a course (W entered on transcript) or change to S/U grading is May 13.

Students with disabilities

Students with disabilities documented by SSD and who may need accommodations, who have any emergency medical information the instructor should know of, or who need

special arrangements in the event of evacuation, should make an appointment with the instructor as early as possible, no later than the first week of the term.

Student conduct:

1. What you should know about academic dishonesty:

Cheating includes using study materials during an exam, copying from another student, or using any other unauthorized aid to obtain the answer to a question. Submitting an altered exam for regrading is academic dishonesty. Given evidence of cheating, the instructor may impose any academic penalty including an "F" grade in the course. Further, the incident will be reported to the student's academic dean for possible disciplinary action, and a copy of the report will be filed by the Student Conduct Program. A second incident of academic dishonesty will automatically refer the student to the student conduct committee for a formal hearing, which will likely result in suspension from the University.

2. Expectations for civility and behavior in class:

Any behavior that interferes with other student's ability to learn will not be tolerated. Remedies for serious problems include referral to the Student Conduct Program for disciplinary action and dismissal from class. Behaviors that create a hostile, offensive or intimidating environment based on group affiliation such as gender or race will be referred to the Affirmative Action Office.

Some basic courtesies I expect you to observe include:

- a. Arrive on time and don't leave or prepare to leave until lecture is finished.
- b. Do not chat during lecture, as this behavior is particularly distracting to me and to other students.
- c. And finally, turn off your dang phone.