

BIOL 3040: EVOLUTION – Fall 2007

“Nothing in biology makes sense except in the light of evolution”
- *Theodosius Dobzhansky*

Instructor: Dr. Andrew Whitehead. Office: LSA 112, Lab: LSA 124, phone: 578-8210, andreww@lsu.edu.

Office Hours: I prefer to spend time answering questions in person rather than by email or phone. I will be available Mon 9:30-10:30 AM; Tues 10:30-11:30 AM, Wed 4:00-5:00 PM in my office. If you cannot meet with me during these times, then email me to arrange an appointment.

Class meeting times: M,W,F; 8:40 AM – 9:30 AM,

Location: 120 Tureaud

Prerequisite: Genetics (BIOL 2153)

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

Recommended Text: Ridley, M. *Evolution*, 3rd Edition. Blackwell Publishing, MA, 2004.

Required Readings: To be posted on Blackboard.

Course Objectives:

Evolution is the unifying theme and provides the theoretical underpinnings of all of biology. Accordingly, students of biology must have a broad understanding of evolution in order to enrich and deepen their understanding of the biological sciences – whether specializing in medicine, conservation biology, agriculture, etc. This course seeks to instill an integrative and functional understanding of evolutionary biology. We will not focus on memorizing facts and figures, but rather will learn to think like an evolutionary biologist. You will be challenged to think experimentally, to interpret data, to problem solve, and to formulate and evaluate hypotheses. Examinations and assignments are varied so as not to favor any particular learning style. However, extensive writing is required, as knowledge is of limited value if it cannot be communicated effectively.

Grading Structure:

In-class quizzes.

There will be five (5) in-class quizzes distributed throughout the semester. Each quiz will be worth 10 points. These are scheduled on Mondays (the first one will be Sept 17). They will take up the first half (or so) of lecture and will consist of various question types. The questions will be derived from lecture and from assigned readings. A series of study questions pertaining to assigned readings and lectures will be handed out prior to these exams. Some of these questions will appear on the exam. There will be 5 in-class quizzes, and grades from your 4 best quizzes will be included in your final grade. That is, you are allowed to miss 1 of the 5 quizzes without penalty. As such, **no make-up quizzes will be given.** Further missed exams will require prior approval by the instructor and an official excuse (or doctor's note) to arrange for alternative grading.

Assignments.

There are three (3) assignments. The first will be due on Oct 15, the second will be due on Nov 19, and the third will be due on Dec 5. Papers handed in after the due date will be penalized 10% per day, and no papers will be accepted for grading after two late days.

The first two assignments will each consist of a synopsis of primary literature articles. Each synopsis will be worth 15 points. Article selection criteria will soon be posted. You must submit a copy of the original article with your synopsis. The criteria for article selection and an outline for the synopsis will soon be distributed in class and posted on Blackboard.

The third assignment will be a take-home problem set, and will be worth 30 points. You will have at least one month to complete this assignment.

You have one week from the time that the lecture exams and assignments are returned to report errors in the grading. Anything written in pencil will not be considered for re-grading.

Final Examination.

The final exam will be held on Monday December 10 from 7:30 to 9:30 AM and will be worth 30 points – it will be cumulative.

Lecture Topics: (this list is subject to change)

- history of evolutionary thought
- evidence for evolution
- natural selection
- sources of variation
- quantitative genetics
- population genetics
- phylogenetics
- fossils
- speciation
- adaptation
- evolutionary genomics

Important Dates:

September	4	T	Final date for dropping courses without receiving a grade of "W"
	17	M	In-class quiz 1
October	1	M	In-class quiz 2
	15	M	Assignment #1 due
	22	M	In-class quiz 3
November	12	M	In-class quiz 4
	19	M	Assignment #2 due
December	3	M	In-class quiz 5
	5	W	Assignment #3 due
December	10	M	FINAL EXAM (7:30-9:30 AM)

NOTE: Drop policy:

Though you may drop courses through Sept 4th without receiving a "W" grade, you may drop **only one** course following that date to receive a "W" grade.

A few reminders about stuff you already know, some advice, and some rules:

1. TURN OFF YOUR CELL PHONES DURING CLASS! No cell phones or iPods are permitted during exams.
2. You are responsible for all material presented during lectures and assigned readings for exams.
2. This course is not over until the final exam on December 10. Do **not** make arrangements to leave campus before that time, and then expect me to accommodate you. I will be looking at grading a mountain of finals, and will be totally unsympathetic to those wanting to start vacations or jobs early. I cannot reschedule final exams.
3. Most importantly, feel free to ask questions in the lecture if you feel yourself getting lost. The room is big, so it's sometimes hard for me to see your hand, so yell it out if necessary.

Disabilities: I need to hear from anyone who has a disability, which may require some modification of seating, testing or other class requirements so that appropriate arrangements may be made.

Ethics:

LSU Code of Student Conduct

Breaches of academic conduct will not be tolerated. The following is Section 5.1C of the Code of Student Conduct. It details the definitions of academic misconduct. To access the complete LSU Code of Student Conduct, go to

[http://appl003.lsu.edu/slas/dos.nsf/\\$Content/Code+of+Conduct](http://appl003.lsu.edu/slas/dos.nsf/$Content/Code+of+Conduct)

"Academic Misconduct" includes, but is not limited to, cheating, plagiarism, collusion, falsifying academic records, and any act designed to give an unfair academic advantage to the student (such as, but not limited to, submission of essentially the same written assignment for two courses without the prior permission of the instructors, providing false or misleading information in an effort to receive a postponement or an extension on a test, quiz, or other assignment), or the attempt to commit such an act. Other specific examples of academic misconduct include:

1. Copying from another student's test paper or assignment;
2. Allowing another student to copy from a test paper or assignment;
3. Using during a quiz/test the course textbook or other materials such as a notebook normally brought to a class meeting but not authorized for use during a quiz/test by the person giving the quiz/test. Having such forbidden material open and in sight of the student will be considered prima facie evidence of use;
4. Failing to thoroughly follow requirements related to the preparation and presentation of work, including group projects, submitted for credit in a manner that results in submitting as one's own the work of another or misleading an instructor as to the condition under which the work was prepared;
5. Collaborating during a test or any other assignment with any other person by giving, receiving or otherwise sharing information without prior approval of the instructor. Speaking to another person without the consent of the person proctoring the exam may be considered prima facie evidence of collaboration;
6. Using specially prepared materials (e.g., notes, formula lists, notes written on student's clothing or body) during a test. Bringing such forbidden material to a test will be considered prima facie evidence of use or attempted use;
7. Stealing, buying, or otherwise obtaining through unauthorized access, all or part, including answers, of an unadministered test;
8. Seeing or giving away all or part of an unadministered test, including answers to an unadministered test;
9. Bribing any other person to obtain an unadministered test or information about an unadministered test;
10. Substituting for another student, or permitting any other person to substitute for oneself, to take a test;
11. Submitting as one's own, in fulfillment of academic requirements, any work (such as, but not limited to, a theme, report, term paper, essay, computer software, other written work, painting, drawing, sculpture, or other scholastic art work) prepared totally or in part by another;
12. Selling, giving, or otherwise supplying to another student for use in fulfilling academic requirements any theme, report, term paper, essay, computer software, other written work, painting, drawing, sculpture, or other scholastic art work;
13. Entering a building or office for the purpose of changing a grade in a grade book/computer, on a test paper, or on other work for which a grade is given;
14. Changing, altering, or being an accessory to changing and/or altering a grade in a grade book/computer, on a test paper, on other work for which a grade is given, on a

"drop slip," or on any other academic record of the University;

15. Entering into an arrangement with an instructor to receive a grade of "F" or any other reduced grade in a course, on a test, or any other assigned work in lieu of being charged with academic misconduct under the Code of Student Conduct;

16. Committing Plagiarism. "Plagiarism" is defined as the unacknowledged inclusion of someone else's words, structure, ideas, or data. When a student submits work as his/her own that includes the words, structure, ideas, or data of others, the source of this information must be acknowledged through complete, accurate, and specific references, and, if verbatim statements are included, through quotation marks as well. Failure to identify any source (including interviews, surveys, etc.), published in any medium (including on the internet) or unpublished, from which words, structure, ideas, or data have been taken, constitutes plagiarism;

17. Violating any applicable professional code of ethics or conduct while enrolled in a course of study designed to qualify the student for certification in a profession or while in the course or scope or any required practicum or clinical experience;

18. Attempting to commit, or assisting someone in the commission or attempted commission of an offense listed above.

I understand the rules of academic conduct and accept full responsibility to abide by the LSU Code of Academic Conduct. I understand that a breach of this code will result in immediate referral to the Dean of Students and the Office of Judicial Affairs for possible disciplinary action, which may include dismissal from the University.

Name

Date