

# Rhodes College Digital Archives - DLynx

## BIOL 200-01, Evolution, Fall 2004

Item Type	Syllabus
Authors	Olsen, John S.
Publisher	Memphis, Tenn. : Rhodes College
Rights	Rhodes College owns the rights to the digital objects in this collection. Objects are made available for educational use only and may not be used for any non-educational or commercial purpose. Approved educational uses include private research and scholarship, teaching, and student projects. For additional information please contact <a href="mailto:archives@rhodes.edu">archives@rhodes.edu</a> . Fees may apply.
Download date	2026-06-16 17:56:55
Link to Item	<a href="http://hdl.handle.net/10267/699">http://hdl.handle.net/10267/699</a>

**Biology 200  
Evolution  
Fall 2004**

**Dr. Olsen  
A Hour; 8:00-8:50, MWF  
201 Kennedy**

**Text: Evolution, third edition, M. Strickberger, 2000.** This is an excellent Evolution text. It is not required for this course, but I recommend it as a reference, especially for those of you with interests in Evolutionary Biology.

**Course Objectives:**

My objectives for this class are that each of you will develop:

1. an appreciation for the historical development of evolutionary thought,
2. an understanding of the basic mechanics of evolutionary change, and
3. an understanding of the application of evolutionary ideas to the study of organisms in time and space.

**Course outline:**

Historical perspective

Meiosis

Hardy-Weinberg equilibrium

Mutation, selection, flow and drift

Introduction to Systematics

The nature of the species

Speciation

Biological races

Isolating mechanisms

Modes of speciation

allopatric

chromosomal, polyploidy

hybridization

sympatric

Where, When and How?

Biogeography

Fossils

Homologies and vestigial structures

Embryology  
Biochemistry

Phylogenies

**Exam 1      Wednesday, September 29, 2004**

**Exam 2      Monday, November 8, 2004**

**Final Exam   regularly scheduled final exam time**

**General class policies:**

1. **Attendance** – I expect you to be present (and on time) and prepared for all scheduled class meetings, just as you should expect the same from me. I will send the names of anyone whose absences exceed **three** to the office of the Dean of Student Academic Support.
2. **Grades** - I utilize a 90 (A), 80 (B), 70 (C), etc. system of grading. There will be two hour exams (100 pts each). The dates for these exams are printed in the schedule above. These exams will account for 50% of your final grade. You will have 5 written assignments totaling 25% of your final grade. The cumulative final exam will form the remaining 25% of your final grade.

Exams in this class will include definition of terms, identification of individuals and organisms, short answer questions and usually one longer synthetic question. Where applicable, problem solving is also included.

One of my goals for this course is to increase your ability to read and understand scientific literature, as well as to write about science effectively. To accomplish this goal you will be writing news articles drawn from the literature of Evolutionary Biology. I know that primary literature will be difficult reading for you, so the essays will be team efforts. I will assign teams of three students, changing these randomly during the semester. Your team will select an article from a recent (no more than four months old) issue of the journals *Evolution* or *Systematic Biology* (if you find an evolution research article you find interesting in another source, check with me for permission to use it).

Read the article you have chosen carefully. Understand the basic question being addressed, the experimental methodology being used to address the question, and the conclusions drawn. Find and read appropriate background information. When you are comfortable with your understanding of the article, write a news story for me. You are to write these as though you were reporting as a member of the news media on an important scientific discovery. Be sure that your news story adequately summarizes the research itself, and also answers questions

about the impact of the information. Your goal is to accurately report the information while making it an interesting subject for the reader. How will your report capture the interest of someone skimming through the newspaper (your title)? What is the question being addressed? Why should the reader care about this subject? How does this research change, support or refute the current understandings on the topic? What is the next step to be in this research? Make sure that you supply the complete citation for the article used and any references you found to provide background for the research. Turn in a copy of the article along with your finished project.

I want well written **(No handwritten work will be accepted!)** articles. Since good, effective writing is as necessary in the sciences as it is elsewhere, I will grade these essays on the basis of both content and style. I expect that these written assignments will each be about 2-3 pages in length, double spaced. **Pledge your work. Your pledge will include the understanding that all members of the group participated more or less equally in the work.**

**The due dates for these articles are as follows:**

**Friday, Sep. 10**

**Friday, Oct. 1**

**Friday, Oct. 15**

**Friday, Nov. 5**

**Friday, Nov 19**

**3. Honor Code** - I subscribe to the Honor Code at Rhodes College. All work done in this class is to be pledged.

**4. Office hours** - I will be in my office (221 Palmer Hall) MWF between 1 and 2:30, TuTh mornings between 10:30 AM and 11:15AM and TuTh afternoons between 1:30PM and 3:30PM. You are very welcome to come by and talk with me during these times. I know my schedule may become tight, so if these times are inconvenient for you or you have difficulty reaching me, e-mail me and we'll arrange a specific time for us to get together.