

**TENTATIVE SYLLABUS FOR BIOLOGY 213 (EVOLUTION) 4 Units**  
**Winter 2001 CRN 11505**  
**CLASS MEETS 2:00 PM - 3:40 PM MONDAYS & WEDNESDAYS IN 8-4**

<b>WEEK AND DATE</b>	<b>LECTURE TOPIC</b>	<b>CD &amp; Read Chapters in Ridley</b>
01 M 01 Jan	===== <b>H O L I D A Y</b> =====	
W 03 Jan	Intro, epistemology, history, time scales	1 and 19
02 M 08 Jan	Fossils, Dating and evidence	3
W 10 Jan	Human Evolution (lecture, slides, start video)	
03 M 15 Jan	===== <b>H O L I D A Y</b> =====	
W 17 Jan	Human Evolution (finish video)	
04 M 22 Jan	genetics review	2
W 24 Jan	<b><u>TEST 1 – 1/3 of GRADE</u></b>	
05 M 29 Jan	Variation, Natural Selection	4, 5, 6, + skim & read summary of 7
W 31 Jan	Evolutionary Genetics	
06 M 05 Feb	Quantitative traits, heritability, genome evolution	9, 10
W 07 Feb	Analysis of Adaptation, units of selection	11, 12
07 M 12 Feb	Adaptive Explanation	13
W 14 Feb	Species and speciation, Review	15, 16
08 M 19 Feb	<b><u>TEST 2 – 1/3 of Grade</u></b>	
W 21 Feb	Classification, Evolution, Cladograms	14
09 M 26 Feb	Evolutionary biogeography	18
W 28 Feb	Rates of evolution; macroevolution	20, 21
10 M 05 Mar	Coevolution and species selection	22
W 07 Mar	Extinction and mass extinction	23
11 M 12 Mar	<b><u>FINAL EXAM -- 1:40 PM - 3:40 PM -- 1/3 OF GRADE</u></b>	

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## **TENTATIVE SYLLABUS FOR BIO 213 Winter 2001 ADDITIONAL COURSE INFORMATION**

**OBJECTIVES:** The main objective of this course is to give you a solid understanding of the modern study of evolution in living organisms. In addition, the course will introduce you to the fundamentals of evolutionary genetics, adaptation and natural selection, classification and phylogenetics, paleobiology and macroevolution. Although non-majors may take the course, this is the evolution course for students majoring in biology, zoology and botany.

**INSTRUCTOR:** Dr. Stephen H. Bryant Bldg. 94 - Room 321 Phone: 869-4094. Office hours: after class, or by appointment: for appointment, call 869-3567. Email address is [shbryant@csupomona.edu](mailto:shbryant@csupomona.edu). **I prefer email to voice mail, and you'll get a faster response therefrom.**

### **REQUIRED MATERIALS:**

**TEXT:** Ridley, Mark. 1997 (the book says 1996, but it wasn't really published until 1997). *Evolution, 2nd ed.* Boston: Blackwell Scientific Publications. This is the second edition of a fairly new comprehensive text on evolution. Ridley's book is well-illustrated, straightforward to read, and gives a good general overview of the types of evolutionary research being conducted at this time (along with the standard classical examples). It is important that you read the whole book, as assigned, for I will lecture mainly on the topics that Ridley covers less thoroughly. Tests, however, will cover BOTH the reading and lecture material. (If you have the CD for the book, and wish to look at it, it will enhance your experience. Especially look at the videos.)

**CALCULATOR:** Bring a calculator with you to tests; any calculator with a square root key will do; you can use as fancy a calculator as you want. If your calculator has a memory, you must clear the memory before starting the test.

**PREREQUISITES:** Introductory college biology. Your introductory biology course should have given you the fundamentals of genetics, evolution, ecology and classification necessary for this course. In addition, I assume you have had the equivalent of intermediate algebra (which is a prerequisite for admission to Cal Poly) and can solve simple algebraic equations and work with graphs of various sorts.

**EXAMS:** Two midterm exams and a final will be given; each counts 1/3 of your grade. Exams will be closed book, and consist of a mix of question types, and may include objective, short answer, problems, essay etc. About a third to a half of the points on each exam will be over material covered by the assigned reading which is NOT covered in lecture. Bring your student ID to each test; instructor may check IDs. Students not having proper ID may have their tests invalidated. **WARNING: You MAY NOT take the final exam at any time other than the scheduled time (even if it is the middle final of the day for you).**

**GRADING:** Grading will be done more or less on a curve. Instructor will post on the web a histogram of test scores and the grading scale for each exam. The grading will be no more stringent than 90% = A; 80% = B; 70% = C, 60% = D. Thus, it is possible for every student to earn an "A".

**WEB MATERIALS:** Lecture notes, previous test keys, and other materials are available from my web site, which contains previous tests and more information on evolution, including a copy of this syllabus. The URL for the class web site is <http://www.csupomona.edu/~shbryant/213.htm>. Download **and install** the Adobe Acrobat viewer as instructed to view the documents.

**ACADEMIC INTEGRITY:** See the statement on academic integrity in the 1999-2001 Cal Poly Catalog on page 49. (Also available at [http://www.csupomona.edu/~academic/catalog99-01/05\\_Admissions.pdf](http://www.csupomona.edu/~academic/catalog99-01/05_Admissions.pdf) — Acrobat page 31, catalog page 49) I will follow University Policy and "... report each instance of academic dishonesty to the Director of Judicial Affairs and Student Development."

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