

BioES 278  
Evolutionary Biology, Track 2

Spring 1999  
Writing in the Majors

### General Information

TA: Tim Carr  
*Office:* Corson E443

*Phone:* 254-4285 (o), 254-4239 (1)  
*e-mail:* tgc2@comell.edu

*Office hours:* 11 a.m. - 1 p.m. Mondays & by appointment

**Note:** To enroll for the 4 credit option of BioES 278 you need to drop lecture 01 (#068-122) and add lecture 02 (#069-522). You will also need to drop your old section and add this section (#069-545).

**Text and Readings:** Evolutionary Analysis by S. Freeman and J.C. Herron. 1998. PrenticeHall. 786pp.

The text is accompanied by its own website: <http://www.prenhall.com/freeman>

*The Beak of the Finch* by J. Weiner. 1994. Vintage Books. 332 pp.  
Additional readings will be made available by your TA as a course packet and/or placed on reserve in Mann Library.

### Goals:

I have a number of goals for this class this semester. The primary goals are to 1) increase your understanding of and appreciation for evolutionary biology and your ability to think critically about science and to 2) develop your writing ability, especially your ability to write about science for academic and interested public audiences. There are a large number of subsidiary goals including introducing you to the primary literature and helping you to read scientific articles, improving confidence and skills in written and spoken communication, providing opportunities to think about ideas and understanding how writing and thinking are related, providing some insight into the nature of science, and creating an appropriate classroom atmosphere..

### Requirements/Assignments:

*Lectures: Your attendance at the lectures is absolutely required!* The lectures are designed to develop and illustrate fundamental concepts in the field of evolutionary biology, including facts, examples, history, and implications relevant to these concepts. This section is organized around the schedule for lectures and textbook readings. *You also need to read the textbook as assigned in lecture!* These readings complement both the lecture and the section. I expect everyone to be learning the material presented in both text and lecture as independently as possible. Only then can we

move on to more in-depth and advanced discussions of the fundamental concepts. Your knowledge of material presented in lectures and in the text will be evaluated in two take-home problem sets, one at mid-term and one at the end of the semester (see below).

*Section:* Section will consist of discussions and activities. Most discussions will be student led and will focus on additional readings assigned by the TA. Activities include in-class projects as well as field trips to visit the insect collections, view fossils, etc. Almost all activities require completing a worksheet.

*Participation:* *Your participation in section is essential for section to be as valuable and rewarding as possible!* Additionally, it is important to become comfortable with public speaking and to improve your ability to think about what others are saying and respond in a clear manner. Your participation also helps me assess how well the class is understanding the material. During many sections, two members of the class will lead discussing on assigned readings. The discussions will be most valuable and lively if everyone is prepared and participates. To this end, a set of study questions will be assigned prior to each reading and collected in section the day of the discussion. Remember that you will be leading discussion at some point and be relying on your classmates to be well prepared participants.

We need to create an atmosphere of friendship, respect, and trust based on a collective, mutual understanding that the class is a community. We will discuss this, but both continued silence and overbearing, incessant participation are unacceptable. I will not hesitate to call on those who are not speaking. After most sections I will record who participated and who did not on a check plus, check, check minus, zero scale. There are other ways to let me know that you are participating in class. These include e-mail messages about questions or insights you had regarding a topic/discussion, notes, journal entries, attending my office hours, providing feedback on how the class is organized and run, etc. Ultimately, none of these will replace active participation in class discussions, but they do indicate to me that you are paying attention and thinking. Of course, your attendance is expected at all sections (you will receive a zero for each section missed).

*Papers:* You are required to turn in four papers over the course of the semester, two shorter papers (2-4 pages) and two longer papers (4-6 pages). You are allowed to rewrite one shorter paper *once* and one longer paper *once* to improve the quality of your work and to potentially improve your grade. Rewritten papers must be substantial improvements over the original version. Correcting grammatical and spelling errors only does not count as a rewrite and defeats the purpose of permitting rewrites.

*Assignments:* Various smaller assignments will be given throughout the course of the semester. These will usually be in the form of worksheets relating to some activity from section. They are designed to help you understand and think about the concepts involved.

*Problem sets:* There will be two take-home problem sets, essentially a midterm and a final. These are designed to test your knowledge of the material from lectures and texts but in a more relaxed setting. The emphasis will probably be on fewer but deeper questions that require thought and a well-written answer.

\* All of the above assignments (papers, assignments, and problem sets) are due at the beginning of section on the date specified in the 'course schedule.' Late papers and problem sets will be penalized unless you speak with me ahead of time.

*Presentation I Poster Group Project:* There will be a group project mid-way through the semester culminating in a presentation at the I st Annual WIN4-Evolution Meetings tentatively scheduled for April 17th.

*Journals:* You are expected to keep a 'journal of your thoughts on evolutionary biology, science and other things (but nothing too personal, please!). I will check the journals twice over the course of the semester and once at the end. The journal is for you. It is your opportunity to think about and process ideas through writing, to speculate, to question and critique, to make links between concepts in this class and what happens in other classes, in your life, etc. For the two longer papers, one option will be to be choose and develop your own topic. The journal is a great way to get started on this.

### **Plagiarism:**

Plagiarism will likely be obvious to your TA. It will result in a zero for that assignment and may result in your dismissal from the section. There is no reason to plagiarize. You should cite others liberally (what is the definition of plagiarize?). More on this later.

### **Grading:**

Participation/Attendance in Section: 10%

#### Assignments:

|                                |    |
|--------------------------------|----|
| Study Questions:               | 4% |
| Natural Selection Worksheet:   | 1% |
| Genetics Problem Set:          | 2% |
| Drift Worksheet:               | 2% |
| Phylogeny Project:             | 3% |
| Evolution in Plants Worksheet: | 2% |

#### Papers (including preparatory assignments):

|           |     |
|-----------|-----|
| Paper #1: | 8%  |
| Paper #2: | 8%  |
| Paper #3: | 12% |
| Paper #4: | 12% |

#### Group Project:

#### Exams:

|          |      |
|----------|------|
| Midterm: | 7.5% |
| Final:   | 7.5% |

Journals: 10%

