

## **BIOEE 1780: Evolutionary Biology and Diversity**

### **WRITING IN THE MAJORS (GALÁPAGOS)**

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**Instructor Information:**

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Office: Corson Hall E231

Office Hours: Wednesday 2:15 – 3:15 pm

**Course Information:**

Meeting Times: Monday & Wednesday, 1:25 – 2:15 p.m.

Room: Stimson 106

**Course Description and Philosophy:**

The Writing in the Majors section of BIOEE 1780 is designed to explore the fascinating processes of evolution using the spectacular setting of the Galápagos archipelago. Nearly all of the major themes of evolutionary biology can be understood through high-profile examples in the animals you will see first-hand in during your travels in the Galápagos. Weekly sections will provide a forum for the discussion of concepts, exchange of ideas, and the development of writing, research, and communication skills.

**Course Aims and Outcomes:***Aims*

The intent of Writing in the Majors Galpagos Version is to provide a small group setting where students can openly engage in scientific discussions and gain a thorough understanding of evolutionary principles. Additionally this section aims to provide students with the opportunity to think like an evolutionary biologist while critically analyzing scientific literature and writing scientific pieces.

*Learning Outcomes*

By the end of this course, students will:

- be able to describe major evolutionary processes and connect the principles to prime examples in the Galápagos.
- be able analyze primary scientific articles and draw conclusions about the underlying biology.
- have developed oral and written communication skills through weekly paper discussions and writing assignments, respectively.

**Course Procedures and Requirements:***Lecture textbook assignments and policies*

Required texts:

- Zimmer, C. and Emlen, D.J. 2013. *Evolution: Making Sense of Life*. Roberts and Company Publishers, Inc.
- Hillis, Sadava, Heller and Price. 2013 *Principles of Life: Diversity* (Chapters 19-23). Sinauer and Associates.

To succeed in this course you must attend lecture. As motivation, your attendance will be recorded using the iClicker. Two absences are permitted, but more than two absences will affect your grade. Notice, sharing iClickers is a violation of the academic integrity policy.

Exams will be severely down-weighted in order to alleviate some of the stress associated with attaining high marks. Although exam scores will be down-weighted, it is imperative that time is spent with the material to ensure comprehension. Remember, WIM is a supplement to the lecture, and section will be used to address lecture topics in greater detail.

### *WIM Section Readings*

Readings will be drawn from the required textbook or will be distributed on the Blackboard site prior to section. It is your responsibility to read the assignments before class. **DO NOT** wait until the night before section to begin the reading assignment. You should write down your thoughts, ideas and/or questions as you are reading in preparation for our class discussion. Please refer to: Tips for Reading a Scientific Paper for more suggestions.

### *Attendance and Participation*

We are limited to 100 minutes of class time each week; therefore it is essential that you attend and participate during each class. Tardiness will create a distraction during discussions; therefore, regular or severe tardiness will be counted as an absence. **You are allowed two unexcused absences from either the lecture or the WIM section.** Additional unexcused absences will result in a loss of participation points. Please notify me of any planned absences (e.g., due to an extracurricular or athletic event) at least a week in advance. Health issues can arise suddenly and unexpectedly; if you are not feeling well and may get others sick, it is best to stay home, rest, and recover. Please notify me as soon as possible in the case of an absence due to sickness or other unexpected complications.

Active participation is an essential part of this course. We will strive to create an atmosphere where all students feel confident discussing their perspective. Please be respectful of your fellow students; try to not dominant the conversation or interrupt others. Remember this is a learning process. The goal is to provide an atmosphere where you can refine your communication skills!

### *Peer Revision*

An important component of the writing and scientific thought process is revision. Self-revision is undeniably important. The feedback from others during peer review is considered a valuable form of feedback as well. Additionally, critiquing the work of others causes you to become more critical of your own work. Thus, we will use the peer review process to improve the science and writing during major assignments.

### **Assignment Guidelines:**

- Word-process all written work (either MS Word or Pages)
- 12 pt Times New Roman font
- Double-spaced
- 1 inch margins on all sides
- Proofread and spellcheck each assignment
- Final drafts will be submitted via TurnItIn

- *Late policy*: Late assignments will receive an automatic 10% deduction for each day that it is late.

**Grading:**

Letter grades will be assigned with the following cutoffs:

98% - 100% A+  
93% - 97% A  
90% - 92% A-  
88% - 89% B+  
83% - 87% B  
80% - 82% B-  
78% - 79% C+  
73% - 77% C  
70% - 72% C-  
60% - 69% D  
below 60% F

Grades will be comprised of the following categories:

*Attendance and Participation (30%)*: Attendance and participation make up the largest proportion of this class. Attendance in lectures will be monitored via iClicker points and will constitute half of the portion of the Attendance and Participation grade (i.e. 15% of final grade). Section participation will make up the remaining points and will be based on participation in class discussions and other in-class activities.

*Major Essays (30%)*: There will be three ‘major’ writing assignments throughout the semester referred to as ‘essays’ in the schedule. Each one will count towards 10% of your final grade.

*Quizzes (20%)*: Four quizzes will be given throughout the semester. **These quizzes will take the place of the prelims given in lecture.** Each quiz will consist of five short-answer questions drawn from a pool of ten possible questions. Students will be provided with the list of possible questions at least one week in advance of each quiz. Questions for each quiz will be drawn at random from the list of possible questions and students will not be able to use text books or other course materials to answer these questions during the quiz. Make-up quizzes can be arranged, but they must be arranged at least one week in advance.

*Small Assignments (20%)*: There will be four smaller assignments throughout the semester. Each one will count towards approximately 5% of your final grade. They will vary in content and structure according to the given assignment.

**The Public Domain:**

Because a major goal of this course is to improve everyone’s writing ability, all student writing for the course may be read and shared by all members of the class. When discussing written excerpts with the entire class, I will strive to keep works anonymous.

**Electronics Policy:**

Unless I give direct permission, electronics are not to be used during class. This includes, but is not limited to: laptops, cell phones, mp3 players, and tablets. Having electronics out, whether in active use or not, is distracting for everyone.

**Statement on University Policies and Regulations:**

I respect and uphold University policies and regulations pertaining to the observation of religious holidays; assistance available to the physically handicapped, visually and/or hearing impaired student; plagiarism; sexual harassment; and racial or ethnic discrimination. All students are advised to become familiar with the respective University regulations and are encouraged to bring any questions or concerns to my attention.

**Statement on Students with Disabilities:**

In compliance with the Cornell University policy and equal access laws, I am available to discuss appropriate academic accommodations that may be required for students with disabilities. Requests for academic accommodations are to be made during the first three weeks of the semester, except in unusual circumstances, so that arrangements can be made. Students are encouraged to register with Student Disability Services to verify their eligibility for appropriate accommodations.

**Statement on Academic Integrity:**

All the work you submit in this course must have been written for this course and not another and must originate with you in form and content with all contributory sources fully and specifically acknowledged. Make yourself familiar with Cornell's Academic Integrity Code, which is available at <http://www.theuniversityfaculty.cornell.edu/AcadInteg/>. In this course, the normal penalty for a violation of the code is an F for the term.

**Statement on TurnItIn:**

Students agree that by taking this course all required papers may be subject to submission for textual similarity review to Turnitin.com for the detection of plagiarism. All submitted papers will be included as source documents in the Turnitin.com reference database solely for the purpose of detecting plagiarism of such papers. Use of the Turnitin.com service is subject to the [Usage Policy posted on the Turnitin.com site](#).

**Calendar:****PLEASE NOTE THAT THE SPECIFIC DATES AND ASSIGNMENTS LISTED HERE ARE SUBJECT TO CHANGE****DEPENDING ON THE TRAJECTORY OF THE COURSE.** In the event of a change in the syllabus, students will be notified and an updated version will be distributed.

Week	Date	Topic	Assigned Reading	Assigned Work	What's due?
1	1/22/14	No Class	–	–	–
2	1/27/14	Introduction to Course	How to Find Scientific Articles How to Read Scientific Articles Module on Blackboard	Assignment #1	–
	1/29/14	Library Session #1 Mann Lib. Room B30B	ZE8.1 Pg. 220–224	–	–
3	2/3/14	Natural Selection	Grant and Grant (2002) Grant (1983)	Essay #1	Assignment #1
	2/5/14	Trip logistics	–	–	–
4	2/10/14	Quiz #1 Phylogenetics	–	–	–
	2/12/14	Phylogenetics	–	–	Essay #1
5	2/17/14	<b>February Break</b>	–	–	–
	2/19/14	Phylogenetics	Omland et al. (2008)	Assignment #2	–
6	2/24/14	Phylogenetics	–	–	–
	2/26/14	Trip logistics	–	–	–
7	3/3/14	Quiz #2 Adaptive Radiations	Losos and Ricklefs (2009)	Essay #2 – 1st Draft	Assignment #2
	3/5/14	Library Session #2 Mann Lib. Room B30B	–	–	–
8	3/10/14	Galápagos Biodiversity	Parent et al. (2008)	–	–
	3/12/14	Trip logistics	–	–	–
9	3/17/14	Galápagos Biodiversity	–	Essay #2 – Final Draft	Essay #2 – 1st Draft
	3/19/14	Galápagos Biodiversity	–	–	–
10	3/24/14	Quiz #3	–	–	–
	3/26/14	Trip logistics	–	–	Essay #2 – Final Draft
11	3/31/14	<b>GALÁPAGOS</b>	–	Assignment #3	–

	4/2/14	<b>GALÁPAGOS</b>	–	–	Assignment #3
12	4/7/14	No Class	–	–	–
	4/9/14	Population Genetics	–	Essay #3 – Outline	–
13	4/14/14	Population Genetics	Tzika et al. (2008)	Assignment #4 Essay #3 – 1st Draft	Essay #3 – Outline
	4/16/14	Photo and Pizza Party	–	–	–
14	4/21/14	Population Genetics	–	–	–
	4/23/14	Recent Advances	–	–	Assignment #4
15	4/28/14	Quiz #4 Recent Advances	Losos et al. (2013)	Essay #3 – Final Draft	Essay #3 – 1st Draft
	4/30/14	Peer Review	–	–	–
16	5/5/14	No Class	–	–	–
	5/7/14	Semester Wrap-up	–	–	Essay #3 – Final Draft