

BioEE1640: On the Origin and Future of Biodiversity

Instructor Information:

Instructor: Nicholas A. Mason (I usually just go by Nick)

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Office: Corson Hall E231

Office Hours: Tuesday 9:00 – 10:00 a.m., or by appointment

Course Information:

Meeting Times: Tuesday & Thursday, 10:10 – 11:25 a.m.

Room: Plant Science Building 141

Official Course Description:

Over the last three and a half billion years, our planet has witnessed the evolution of millions of species. From the giant Blue Whale to the diminutive House Mouse, each species tells a unique evolutionary tale; these stories are shaped by the shifting of the Earth's continents, dramatic glaciation events, and the myriad of organisms that share their habitat. This course will simultaneously develop students writing skills and a greater understanding of Earth's biodiversity through critical readings of both scientific literature and popular media, including scientific blogs such as Carl Zimmer's *The Loom*. Writing exercises will first guide students in effective communication of scientific data, results, and hypotheses. As the semester progresses, students will be allowed to pursue their personal interests in plant and animal diversity by writing and peer-reviewing essays focused on the patterns and processes underlying Earth's biodiversity.

Learning Outcomes:

- **You will improve your writing ability for academic coursework and professional writing.**
This course will require you to read, critique and construct various forms of writing. The goal of this is to enhance your ability to write effectively, which is an extremely important skill in any field or profession.
- **You will develop effective research and communication skills.**
Various assignments will require you to find, interpret and properly cite both primary and secondary sources of information. In addition to writing, this class will also focus on improving your ability to communicate through discussions and oral presentations.
- **You will acquire a basic knowledge of evolutionary biology and conservation.**
Through writing, reading and discussing various works regarding the origin and future of biodiversity, you will gain a basic understanding of the ecology, evolutionary biology and conservation concerns of various species.

Optional Texts:

I will provide relevant chapters from these texts to students via Blackboard. However, if you find the readings interesting and would like to learn more, I highly recommend these texts in their entirety.

- Quammen, D. 1996. *Song of the Dodo*. Schribner Press. Available [here](#) from Amazon.

- Zimmer, C. 2009. *The Tangled Bank*. Roberts and Company Publishers. Available [here](#) from Amazon.
- Coyne, J. 2010. *Why Evolution is True*. Penguin Books. Available [here](#) from Amazon.

Description of required writing:

Writing assignments for this seminar will consist of six essays that will be accompanied by short reading responses and in-class writing exercises. Four of these essays will undergo peer review and/or receive feedback from me prior to submission of a 'final' draft. Essays will include a mixture of research-based assignments and narratives to engage in a wide variety of writing styles and formats, but the main emphasis will be on academic writing in the life sciences.

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
- Numbered pages
- Your name, assignment name/number, and date and essay title at the top of the first page
- Proofread and spellcheck each assignment
- Final drafts will be submitted via turnitin

Individual Conferences:

Each student will be required to meet with me at least **twice** over the course of the semester. I am, of course, willing to meet with anyone at any time to discuss their writing or performance in the class. One of these meetings will occur close to midterms. At that point, we will discuss your performance in the class so far, where your grade stands and how to improve your standing by the end of the semester. The second required meeting will be an exit exam during finals week. You are more than welcome to schedule additional meetings to discuss your writing, performance in the class or anything else you might like to chat about!

Grading Policy:

Contract Grading

The primary objective of this course is to improve your skill as a writer. Traditional grading schemes often hinder this goal by shifting focus from course content to concerns about individual assessment. Therefore, I have chosen to employ a grading system that gives you more power over your grade and deemphasizes the grade that an individual assignment may or may not deserve in favor of promoting the continuous improvement and development of your writing ability.

Here's how it works. **You are guaranteed a B in this course if you:**

1. Attend every class.
2. Show up to every class *on time*.
3. Turn in every assignment on time.
4. Do all of the readings.
5. Actively participate in class discussions.
6. Actively participate in peer reviews.
7. Strive to improve your writing with every new draft or assignment.

You will receive either a ✓+, ✓ or ✓− in each of these categories after every class and for every assignment. I will record this information on Blackboard and will do my best to update it after every class. Only you will have access to your assessments and it will be available to you at all times. That way, you will always know where you stand, and you can check it as often as you like.

The way to receive a check for #1–3 should be straightforward. For example, if you come to class, you receive a check. If you don't, you will receive a minus. My assessments of #4–7 will depend upon your participation in class activities, such as group discussions or in-class responses to reading assignments.

Free Passes

I recognize that we are all human, and that life happens. So, you are allowed two 'free passes' for *each* of the rules above. This means that you will still receive a B, even if you:

1. Miss up to two classes.
2. Are up to 10 minutes late for up to two classes.
3. Turn in two assignments one day late.
4. Receive a ✓− for any two reading assignments.
5. Receive a ✓− for any two class discussions.
6. Receive a ✓− for any two peer reviews.
7. Receive a ✓− for any two writing assignments, including drafts.

Please note that if you miss a day of class, you will be responsible for finding out from other students (not me) what happened in your absence – you will need to get copies of materials, assignments, and figure out what was covered in class through your peers. Barring any extreme circumstances, I will NOT make exceptions beyond those listed above. Failure to meet these requirements will result in the loss of a partial grade for each infringement (B will become a B- if you have more than two unexcused absences).

Grades Above a B

Satisfying the criteria above will guarantee you a B in the course. However, grades above and below a B will be based on your level of engagement and effort in the class, as well as the quality and improvement of your writing. Simply put, if you satisfy all the criteria above and do excellent work you will receive an A. You will earn a grade higher than a B if, consistently throughout the semester, you thoroughly think about the readings and provide particularly insightful talking points, your writing vastly improves in ways we have discussed, you produce stellar papers, your drafts evolve in an impressive manner, you provide in-depth edits for your peers, etc...

The public domain:

Because the primary 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. **Two infractions (whether in the same class period or not) will result in one ✓ – for attendance.**

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 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 may be 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.

NOTE THAT ALL ASSIGNMENT AND DUE DATES ARE SUBJECT TO CHANGE. YOU WILL BE NOTIFIED OF ANY ADJUSTMENTS MADE TO THE SCHEDULE BELOW.

Week	Date	Topic	Assigned Reading	Assigned Writing	What's due?
1	8/29/13	Introduction to Course	Wake (2012); Zimmer (2013)	Essay #1	–
2	9/3/13	Research Tutorial pt. 1 @ Library	Stuart et al. (2004)	–	–
	9/5/13	Transition to College Writing; Amphibian Crisis	Meyers et al. (2000)	Essay #2 (proposal)	Essay #1
3	9/10/13	Origins of Biodiversity	Coyne (2009) Ch. 4	Essay #2 (1 st draft)	Essay #2 (proposal)
	9/12/13	Origins of Biodiversity	–	–	–
4	9/17/13	Origins of Biodiversity	Zimmer (2009) Ch. 10	Essay #2 (final)	Essay #2 (1 st draft)
	9/19/13	Origins of Biodiversity	–	–	–
5	9/24/13	Origins of Biodiversity	Barnosky et al. (2012)	Essay #3 (proposal)	Essay #2 (final)
	9/26/13	Endangered Species	–	–	–
6	10/1/13	Endangered Species	Fitzpatrick et al. (2005); Gotelli et al. (2011)	Essay #3 (1 st draft)	Essay #3 (proposal)
	10/3/13	Research Tutorial pt. 2 @ Library	–	–	–
7	10/8/13	Endangered Species	–	–	Essay #3 (1 st draft)
	10/10/13	Visit to the Lab of Ornithology	–	–	–
8	10/15/13	Fall break	–	–	–
	10/17/13	Endangered Species	Elliott et al. (2001)	Essay #3 (final draft)	–
9	10/22/13	Endangered Species	Wild Dog Reading	Essay #4 (1 st draft)	Essay #3 (final draft)
	10/24/13	Endangered Species	–	–	–
10	10/29/13	Endangered Species	Devil's Pupfish Reading	Essay #4 (final draft)	Essay #4 (1 st draft)
	10/31/13	Endangered Species	–	–	–
11	11/5/13	Narratives in Nature	Wilson (2010); Kingsolver and Hopp (2001)	Essay #5 (1 st draft)	Essay #4 (final draft)

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	11/7/13	Narratives in Nature	–	–	–
12	11/12/13	Narratives in Nature	Stanford (2000); Kerasote (2001)	Essay #5 (final draft)	Essay #5 (1 st draft)
	11/14/13	Narratives in Nature	–	–	–
13	11/19/13	Conflicts in Conservation	Donlan et al. (2006)	Essay #6 (1 st draft)	Essay #5 (final draft)
	11/21/13	Conflicts in Conservation	–	–	–
14	11/26/13	Conflicts in Conservation	–	Essay #6 (final draft)	Essay #6 (1 st draft)
	11/28/13	Thanksgiving break	–	–	–
15	12/3/13	Conflicts in Conservation	Cahill et al. (2012)	–	–
	12/5/13	Conflicts in Conservation	–	–	Essay #6 (final draft)
Exams	12/12/13	Exit Interviews	–	–	All Exit Interviews Completed by Noon