

NCLC 401: Conservation Biology
Spring 2014, T&Th 10:30am – 1:15pm
University Hall Room 1201

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Office hours by appointment

Course Description:

This course will introduce students to the fundamentals of Conservation Biology, a discipline that merges taxonomy, natural history, and ecology with “resource” management and restoration ecology, set within a socio-economic, historical, political and legal context. The course will consist of interactive lectures, readings (including a text and primary literature), discussion, group projects, and inquiry-based experiential learning. (6 Credits: 4 Learning Community credits + 2 Experiential Learning credits)

This learning community places special emphasis on the following NCC competencies: *communication, critical thinking, global understanding, group interaction, and well-being.*

Required readings:

Students are expected to have read assigned texts **before class** and to be prepared to discuss the readings in class.

- *A Primer in Conservation Biology* 5th Edition, by Richard B. Primack (Sinauer Associates Inc., 2012)
- Primary (peer-reviewed) literature and other course texts as assigned, which will be posted on Blackboard.

Learning Objectives: By the end of the course, the successful student will be able to:

- Describe the tenets and goals of Conservation Biology
- Describe the threats to biodiversity and explain why biodiversity is valuable
- Identify and explain key concepts in taxonomy, ecology, genetics, biogeography and evolution relevant to conservation biology
- Explain how socio-economic, historical, political and legal contexts affect the conservation of biodiversity
- Clearly articulate actions that help conserve and restore biodiversity

Course Requirements and Evaluation:

- 1) **Leading a Literature Discussion** (50 points): This activity involves working in groups to review relevant literature and lead discussion by the entire class. You will be required to summarize the main points of the article and relate them to class themes in a brief presentation. A grading rubric will be provided to help guide you through the various phases of the discussion.
- 2) **Conservation Journal** (100 points): The journal is a vital component of this course and will assist in preparing you for class discussions. For each student-led discussion that you do **NOT** lead, you will be expected to summarize the articles, write down 2-3 main points from each text and one question you wish to share during discussion. The prompts and your entries will be posted on Blackboard.
- 3) **Experiential Learning Assignments** (50 points): Students will participate in experiential learning activities over the course of the semester. After some of the activities, you will be required to complete a short assignment. Information about each activity and assignment is posted on Blackboard.
- 4) **Midterm Exam** (150 points): Students and instructors will collaborate to develop exam questions based on learning objectives during a pre-exam review session.
- 5) **Case Study Group Presentation** (125 points): Student groups will be required to teach the rest of the class about one of our most pressing conservation problems and/or potential solutions (a list of possible topics will be provided). Presentations will occur at the end of the semester and grades will be based upon faculty and peer-evaluations of your work. Evaluations by your fellow group members will contribute 25 of the 125 final points.
- 6) **Case Study Bibliography & Outline** (75 points): To help you develop your case study, you will submit an outline and annotated bibliography for your topic part way through the semester. The outline should briefly describe the main sections of your essay and provide a clear roadmap of your eventual presentation. Your annotated bibliography should convincingly demonstrate that your presentation will be based on sound, high-quality, and thorough research. Extensive feedback on the outline and bibliography will be provided that will help you create the final presentation.
- 7) **Portfolio** (150 points): You will be required to produce a final portfolio for the course, which will include essay style responses to questions that reflect the themes of the entire course, and reflection on your growth within the competencies addressed by this course.
- 8) **Participation** (100 points): You are expected to come to class prepared for discussion of readings and concepts, field trip activities, and group project meetings. Participation is assessed over the entire semester and can take many forms, e.g., responding to and presenting thoughtful questions, helping with course logistics, being fully involved in group projects, etc. Participation also involves doing everything you can to make our field trips run smoothly, and representing yourself, our class, and NCC well when we are engaged in activities off campus. Note that perfect attendance will only earn you 30 points. The other 70 points will be assigned at the discretion of the instructors.

NOTE: Field trips will involve a per student fee to offset the cost of the trips (e.g. van rental, housing, food...etc.).

Grading Scale

A+	800-776	C+	639-616
A	775-744	C	615-584
A-	743-720	C-	583-560
B+	719-696	D	559-480
B	695-664	F	479-0
B-	663-640		

Course Policies

Attendance and Preparation

Students are expected to attend every class session and to be prepared by completing the required readings and other assignments before class meets.

Late Work

Papers and other assignments are to be submitted at or before the time noted on the course schedule. Late work will be reduced by 10% if it is up to 24 hours late, by 20% if it is between 24 and 48 hours late. No work will be accepted over three days late without a valid written medical excuse or notice of death in the family. No makeup work will be given unless you have made prior arrangements with the instructor.

Email Policy

GMU faculty and staff may only correspond with students through the students' GMU assigned email accounts. This is a legal requirement, so emails sent from other accounts will not be answered.

Cell Phones, Laptops and the Paperless Classroom

Please turn your cell phone off (not on vibrate) while in class. No texting or listening to music is allowed while in class.

You are welcome to bring a laptop to class and use it for class-related purposes (e.g. taking notes, referring to course texts). During class you are asked to refrain from using your laptop for purposes not related to class (e.g. email, IM, FB, surfing the Internet). Using your laptop for non-class purposes will decrease your participation score.

We will use the Blackboard online course management system to minimize paper use. Our aim is to collaboratively adopt policies that will balance academic needs with resource conservation concerns.

Honor Code

When you enrolled in this course you agreed to abide by the university's Honor Code. The Honor Code does not preclude collaborative work, such as informal discussions and studying in

communities. Nor does it preclude assigned group work. The Honor Code does require that work you, as an individual, turn in ultimately be the product of your own individual synthesis or integration of ideas, and that the work a group turns in ultimately be the product of the group's collective ideas. If you are uncertain of the line between collaboration and cheating, see the instructor *before* turning in an assignment. As always, cite your sources. If you do not, it is plagiarism. Plagiarism means taking someone else's ideas or words and presenting them as your own without proper attribution of the source. This includes copying materials directly from the Internet. Use the approved citation method, as discussed in the first class.

Diversity Statement

New Century College, an intentionally inclusive community, promotes and maintains an equitable and just work and learning environment. We welcome and value individuals and their differences including race, economic status, gender expression and identity, sex, sexual orientation, ethnicity, national origin, first language, religion, age, and disability.

Accommodations for Students with Disabilities

If you are a student with a disability and you need academic accommodations, please see the instructors during the first class and contact the Office of Disability Services (ODS) - Student Union Building I (SUB), Room 2500, <http://ods.gmu.edu/>, or (703) 993-2474. All academic accommodations must be arranged through ODS.

GMU Writing Center

The Writing Center provides free tutorial sessions for all students needing help with any writing project, from freshman essays to scholarly publications. It is best to make an appointment to ensure seeing a Writing Center consultant at a specific time; however, walk-ins will be accepted if there are openings. The GMU Writing Center is located in Robinson A114; (703)-993-1200; <http://writingcenter.gmu.edu/>

Course Calendar

Date	Topics	Assignments
T 1/21	Course overview Nuts and bolts: a review of the basics “Wish to Protect Our Oceans” – TED: Sylvia Earle	
R 1/23	What is Conservation Biology? “Thin Green Line” – Nature film Introduce Student-led Discussions & Conservation Journal Assignment	Primack Ch 1
T 1/28	Biodiversity “Saving Life on Earth” – TED: EO Wilson	Primack Ch 2
R 1/30	Value of Biodiversity Introduce Case Study Assignment	Primack Ch 3 Pearce, 2008
T 2/4	Threats to Biodiversity	Primack Ch 4 Bennett, 2011 <i>Submit top 3 preferences for Case Study topic due by 11:59pm</i>
R 2/6	Student-led literature discussion 1	Epps <i>et al.</i> , 2011 <i>Conservation Journal #1 due by 10:30am</i>
T 2/11	Biocultural diversity	Maffi, 2007
R 2/13	Student-led literature discussion 2	Wittemyer, 2011 <i>Conservation Journal #2 due by 10:30am</i>
T 2/18	Extinction	Primack Ch 5
R 2/20	Student-led literature discussion 3	Sekercioglu <i>et al.</i> , 2007 <i>Conservation Journal #3 (due by 10:30am)</i>
T 2/25	Population Biology Mid-term review	Primack Ch 6 (pp 157-168)
R 2/27	Mid-Term Exam	
T 3/4	Establishing new populations	Primack Ch 6 (pp 168-180)
R 3/6	Student-led literature discussion 4	Ripple and Bescheta, 2012 <i>Conservation Journal #4 due by 10:30am</i>
3/10-3/15	SPRING BREAK	
T 3/18	<i>Ex situ</i> Conservation “The Loneliest Animals” – Nature Film	Primack Ch 6 (pp 180-198) Braverman, 2014

R 3/20	No Class - Work on Case Study Outline & Bibliography Last day to attend a Conservation Lecture	<i>EL Assignment: Conservation Lecture Essay (due by 11:59 p.m.)</i>
S 3/22	Field Trip to Maryland Zoo	
T 3/25	Protected Areas Discussion of Maryland Zoo visit Discuss Conservation lectures	Primack Ch 7 <i>Case Study Outline and Bibliography (due by 11:59pm)</i>
R 3/27	Student-led literature discussion 5	Parks & Harcourt, 2002 <i>Conservation Journal #5 (due by 10:30am)</i>
T 4/1	Conservation Outside Protected Areas “Hotspots” Film – Camp Pendelton	Primack Ch 8
R 4/3	No Class	
4/4-4/5	Field trip to SCBI and Farm at Sunnyside	
T 4/8	Sustainable Development “Climate of Change” – Film Discuss field trip to SCBI/Sunnyside	Primack Ch 9
R 4/10	Student-led literature discussion 6	Reed & Melenlender, 2008 <i>Conservation Journal #6 (due by 10:30am)</i>
T 4/15	No Class Last day to visit an Urban Protected Area	<i>EL Assignment: Urban Protected Areas Essay (due by 11:59 p.m.)</i>
R 4/17	Discussion of Protected Area visits “6 ways mushrooms can save the world” – TED Talk - Paul Stamets	
T 4/22	Future of Conservation Introduce Portfolio Assignment	Kareiva and Marvier, 2012
R 4/24	No class - Work on Case Study	
T 4/29	Case Study Reports	
R 5/1	Case Study Reports	
R 5/8	Digital Portfolios	<i>Portfolios Due by 5pm</i> Sutherland <i>et al</i> , 2009