

GEOGRAPHY 3980

Biogeography Fall Term 2013

Instructor: Alvaro Montenegro

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Course Details

Lecture: Mondays & Wednesdays, 2:20-3:40 PM Derby Hall (DB) 0070

Office Hours: Mondays & Wednesdays, 1:00-2:00 PM OR **by appointment**

Course Materials

- Text: MacDonald, Glen. *Biogeography: An Introduction to Space, Time, and Life*, (2003), Wiley, Inc. (ISBN: 978-0471241935) (Required*)

- Readings made available to students on Carmen

* On Jan 5, 2016 used copies of the text could be purchased by about \$45 and rented for about \$30

Course Description

In this course, we will study the past, present, and likely future distribution of Earth's biological diversity. We will be concerned with understanding why species occur where they do and how they came to inhabit their current ranges, how species interact with one another through processes such as predation and competition, and how human societies impact biological diversity through species invasions, habitat fragmentation, and global climate change. In our consideration of these topics, we will focus on both historical and contemporary biogeographic patterns and processes. This course will emphasize local to continental scale environmental issues and critical thinking about the links between physical environmental conditions, biological processes, and human activity.

Learning Objectives

At the conclusion of the course, students will be able to:

- Describe the abiotic and biotic factors that determine species distribution and patterns of biodiversity
- Discuss how human activities impact species distribution and patterns of biodiversity
- Explain the varied effects of disturbance in ecosystems
- Describe the history and geography of human evolution
- Apply biogeographic concepts and theories to local environmental issues

Student Evaluation

Participation	10%
Debate	10%
Peer Reviewed Paper Presentation	10%
Biome Presentation	15%
Exams (2x15%)	30%
Term Project	25%

- *Debate* activity to be done in groups of 2 students.
- *Peer Reviewed Paper Presentation* effort to be done in groups of 3 students.
- *Biome Presentation/Paper* effort to be done in groups of 4 students.
- *Exams* and *Term Project* are individual efforts

There is some flexibility on group sizes, but any size change must be discussed with and approved by instructor.

Participation: Full participation grades will be given to students who attend all debates, peer reviewed paper and biome presentations.

Peer Reviewed Paper Presentation: Each group will make a 20-minute presentation and hand in a six- to seven-page report describing one to two peer reviewed papers on a topic pertinent to the course. Groups are free to choose topic but should obtain approval from instructor. The report should have a cover and a reference page, leaving four pages for text and one (if desired) for figures. The text should be double spaced with font size 11 or 12.

Debate: Two groups of two persons each will take opposite sides on a particular statement and debate each other in class. Each group will have 7-10 minutes to introduce their position prior to the debate. While questions from the audience will be accepted at the end, the expectation is that the debate takes place between the two debating groups only. Students are free to form groups but the statement to be discussed (and sides to be taken) will be randomly assigned to each group.

Biome Presentation/Paper:

Groups will have 25 minutes to present to the class a description of a biome chosen from among those found on chapter 6 of the course's text. Students are free to form groups but biomes to be presented will be randomly assigned to each group. The evaluation will be based on the presentation, the ability of the group to respond to questions from the audience and on the presentation material (such as slides and notes) which should be handed in to the instructor at the end of the presentation.

Exams: There will be two in class individual exams each worth 15% of the final grade. Exams are non-cumulative but, given their pertinence to several components of the course, some topics could be treated as cumulative. The instructor will make it clear to the class what these topics are before the exam. Make-up exams are only allowed in the event of a documented emergency or through **PRIOR** consent of the instructor.

Term Project: To be done individually, the project is a written report on a theme pertinent to the course. Students are free to choose the theme but must obtain approval from instructor. Students are allowed (but not required) to write the term project on the same topic of hers or his Paper Presentation. The report must contain information from at least four peer-reviewed papers and have a total of 8 to 10 pages including:

- a) One cover page
- b) A minimum of five and a maximum of seven pages with double spaced 11 to 12 font size text.
- c) One or two pages with figures.
- d) At least one separate page with references.

Special Statement Regarding Absences

Based on the Office of the Provost recommendations on the current flu situation, students that feel ill are encouraged to stay home and isolate themselves from others. In addition, the “Explanatory Statement for Absence from Class” self-reporting form available online (<http://shc.osu.edu/posts/documents/absence-excuse-form.pdf>) from the Wilce Student Health Center will be accepted as documentation of medical absence and reasonable efforts will be made to provide for make-up work opportunities. All make-ups from documented absences must be **completed within one week** of the original scheduled date.

Academic Misconduct

It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term “academic misconduct” includes all forms of student academic misconduct wherever committed; illustrated by, but not limited to, cases of plagiarism and dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct webpage (http://studentaffairs.osu.edu/resource_csc.asp).

Disability Services

Students with disabilities that have been certified by the Office for Disability Services (150 Pomerene Hall, telephone 292-3307, TDD 292-0901) will be appropriately accommodated, and should inform the instructor of their needs at the **beginning of the term.**

Schedule

The lecture schedule below is tentative. While exam dates will not change, the actual material presented in lectures at the time of any exam might not mirror the schedule precisely. The material covered in each exam will be clearly defined and communicated to the class by the instructor.

Week	Date	Lecture/Activity	Reading	Notes
1	11-Jan	Intro and Biogeography Basics	MacDonald Ch. 1	
	13-Jan	Phys Geography - Abiotic Factors	MacDonald Ch. 2/3	
2	18-Jan	MLK Day - No classes		
	20-Jan	Abiotic Factors	MacDonald Ch. 3	
3	25-Jan	Bio Interactions	MacDonald Ch. 4	
	27-Jan	Bio Interactions	MacDonald Ch. 4	
4	1-Feb	Commu. & Ecosystems - Debate	MacDonald Ch. 6	Debate statement 1
	3-Feb	Succession and Disturbance	MacDonald Ch. 5	
5	8-Feb	Biome Presentations		Material due
	10-Feb	Biome Presentations		Material due
6	15-Feb	Succession and Disturbance	MacDonald Ch. 5	
	17-Feb	Catching up - Review		
7	22-Feb	Exam 1		
	25-Feb	Evolution and Speciation - Debate	MacDonald Ch. 9	Debate statement 2
8	29-Feb	Dispersal, Colonization and invasion	MacDonald Ch. 8	
	2-Mar	Dispersal, Colonization and invasion	MacDonald Ch. 8	
9	7-Mar	Paleobiogeography - Debate	MacDonald Ch. 7	Debate statement 3
	9-Mar	Paleobiogeography	MacDonald Ch. 7	
10	14-Mar	Spring Break		
	16-Mar	Spring Break		
11	21-Mar	Biogeographic Subdivisions	MacDonald Ch. 10	
	23-Mar	Biogeographic Subdivisions	MacDonald Ch. 10	
12	28-Mar	Biogeography and Human Evolution	MacDonald Ch. 11	
	30-Mar	Biogeographic Distributions - Debate	MacDonald Ch. 13	Debate statement 4
13	4-Apr	Biogeographic Distributions	MacDonald Ch. 13	
	6-Apr	Genetic Diversity and Biogeography	MacDonald Ch. 14	
14	11-Apr	Conservation Biogeography	MacDonald Ch. 15	
	13-Apr	Catching up & review - Debate		Debate statement 5
15	18-Apr	Rev. Paper Presentations		
	20-Apr	Rev. Paper Presentations		
16	25-Apr	Exam 2		Final project due