

BIOGEOGRAPHY

GRG 366K (#37440), Spring 2010
MWF 11AM, GRG 312



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Office hours: Monday, 9-11 AM, GRG 334-A

Course description:

This course introduces biogeography, the discipline that attempts to document and explain the changing distributions of plants and animals. Explanations come from the study of current ecological processes and from historical perspectives on past Earth-system changes in relation to evolutionary processes. In addition, there are many applications for biodiversity conservation and natural resource management. We will put equal emphasis on ecological, evolutionary, and conservation biogeography.

Students are expected to read the assigned readings and participate actively in class. The exams will test knowledge, vocabulary, and ability to explain and apply information. The independent essay will be an opportunity to develop technical writing skills.

Prerequisites:

Assumes background from GRG 301C or an equivalent course, for example in the biological or geological sciences.

Required textbooks:

G. M. MacDonald. 2003. *Biogeography: Space, Time, and Life*. John Wiley & Sons, New York. (ISBN: 0-471-24193-8).

Grading:

Final letter grades for the course are assigned by percentages of the 300 possible points, with 200 points from the two exams, and 100 points from an independent project. Grades will be based on $\geq 90\%$ =A, 80-89%=B, 70-79%=C, 60-69%=D, $<60\%$ =F, with pluses/minuses used for intermediate grades. Any form of academic dishonesty will be punished severely; be particularly careful in the essay to give proper credit to sources for information you utilize, thus avoiding plagiarism. Note that the University of Texas at Austin provides upon request appropriate academic adjustments for qualified students with disabilities; for more information, contact the Office of the Dean of Students (471-6259, 471-4641).

The exams will include vocabulary, short answers, and essays. They will be based on the lectures and readings. Note that my lecture notes will **not** be available if you should miss a lecture. The exams are based on both the assigned textbook chapters and from

material covered in class, so taking good notes in class in critical, as is reading and understanding the assigned texts. Attendance is very important---you will not do well if you miss lectures.

The literature review essay is worth 90 points, with 10 additional points from a class presentation in the last week of the semester. It is due on 7 May (any late papers will receive a letter grade penalty for each day late). The goal of this project is to evaluate an important topic in conservation biogeography. The topics will be assigned early in the semester. The essays will be graded based on the quality of the technical writing, their originality, and their relevance to the discipline of biogeography. Format of any citations used should be given in the text as "Smith (1999) hypothesized that . . ." or ". . .can be hypothesized (Smith 1999)". References used should be listed completely at the end of the essay: author, date, title, journal or book chapter, pages. This essay is to be an independently researched and written essay. It should be 8 to 12 pages long, double spaced, and should utilize a minimum of **ten** references from the scientific literature (a couple of citations of internet-based materials is also okay). Note that this assignment replaces the final exam, so the essay should demonstrate knowledge of the topics covered during the entire semester.

<u>Date</u>	<u>Topic</u>	<u>MacDonald</u>
20 January	Introduction	
22 January	Biogeography	1, 2
25-29 January	Physical environments	3
1-3 February	Biological interactions	4
5-12 February	Disturbances	5
15-24 February	Dispersal	8
26 February	FIRST EXAM- Ecological Biogeography	
1 March	Biomes	6
3 March	Realms	10
5 March	Plate tectonics	7
8-12 March	TBA	
15-19 March	NO CLASSES--SPRING BREAK	
22-31 March	Evolution	9

2-9 April	Human influences	12
12 April	SECOND EXAM- Historical Biogeography	
14-16 April	TBA	
19-23 April	Species	13
26-30 April	Biodiversity	14, 15
3-7 May	CLASS PRESENTATIONS	
7 May	LITERATURE REVIEW ESSAY DUE	