

Geography 303: Biogeography

Winter 2005

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Course Description

This course provides an introduction to biogeography, which is the study of the distribution of plants and animals across the surface of the Earth in both a spatial and temporal context. We will examine patterns of species distribution and biodiversity, as well as the important processes that produce these patterns, at many different scales. Upon completion of this course, you should have a much greater appreciation and understanding of the plant and animal life that surrounds you.

Learning Outcomes

Upon completion of this course, students should be able to:

- Demonstrate an understanding of basic biogeographical concepts and processes
- Recognize and be able to explain patterns of plant and animal life at many different scales
- Explain how humans have affected the distribution and diversity of plants and animals
- Apply concepts to decisions regarding human use of the environment
- Plan for future changes in species distributions and diversity as a result of environmental and human-induced pressures
- Demonstrate a knowledge of prominent professional biogeographers and ecologists and their current research themes

Requirements

Attendance and Participation

Please come to class, and be willing to ask questions and make comments. We all have something to learn from each other, and your comments are as valuable as anybody's (including mine). I will take roll, and this will count toward your final grade.

Participation points will be based primarily on in-class contributions, but we will also take at least one field trip, and attendance will count toward participation points.

Readings and Quizzes

The required text for the course is *Biogeography: Introduction to Space, Time and Life* by MacDonald. It is an excellent text, and your understanding of the course will be greatly enhanced if you complete the assigned readings before the class period for which they are assigned. In addition, our ability to discuss the material, rather than having me talk at you, is largely dependent on whether or not you have done the reading. You will be required to take a short, timed quiz on Blackboard before each class period for which there is an assigned reading (I will let you know at least one lecture period in advance when a quiz is coming). There will be one quiz for each chapter, and I will drop the

bottom 4 scores. No make-up quizzes will be given for any reason. Other supplementary readings, (i.e. an occasional journal article designed to supplement material in the text) may also be given.

Examinations

Exams may include some combination of multiple choice, short answer/short essay, T/F, or matching questions. Midterm exams (2) will only include material covered since the previous one. However, scientific concepts tend to inherently build upon each other, so you will need to maintain a thorough understanding of some basic concepts and approaches introduced throughout the course. A comprehensive final exam will also be given at the scheduled time. All exams will be given in class.

Exercises

Three “laboratory” exercises will be given that are designed to help you synthesize the concepts covered in lecture and the readings, and put them into practice. The assignments will be introduced in class, and you will have one week to complete each one.

Bibliographic Sketches and Presentations

To demonstrate the type of research currently being conducted in the field of biogeography, each of you will be required to compile a bibliographic sketch of one biogeographer and one ecologist, summarize your findings in a report, and give a presentation to the class. I will make specific assignments within the first two weeks of the semester.

Grading

I will use the standard 90-A, 80-B, 70-C, etc. scale in determining letter grades (including +/-). I may tweak this scale slightly if necessary, but only in your favor (i.e. if everybody earns 90%, everybody gets an A, but if nobody earns over 90%, you won't all get Bs and Cs). There will be a total of 400 points possible in the class, broken down as follows:

Midterm Exams (2@ 50 pts each)	100 pts	(25%)
Final Exam	60 pts	(15%)
Bibliographic Report & Presentation	75 pts	(19%)
Exercises (3 @ 20 pts each)	60 pts	(15%)
Quizzes (9 @ 5 pts each)	45 pts	(11%)
Attendance and Participation:	40 pts	(10%)
Questions on videos and outside readings	20 pts	(5%)

Blackboard

In addition to the reading quizzes explained above, I will use Blackboard to post an outline of my lecture notes, as well as course announcements, links to supplementary readings, grades, and possibly the laboratory assignments. Although I will do my best to avoid surprises, **IT IS YOUR RESPONSIBILITY** to check the course site often for announcements and other postings. I strongly recommend that you print off a copy of my lecture notes before coming to class. This will make it easier for you to follow along, and will allow you to pay more attention to what I am saying, rather than writing every word down.

Expected Course Schedule

Week	Topic	Chapter
1 (1/4, 1/6)	Introduction: What is Biogeography? Review of Basic Concepts	1 2
2 (1/11, 1/13)	Distribution Patterns: Effects of the Physical Environment	3
3 (1/18, 1/20)	Distribution Patterns: Effects of Biotic Interactions	4
4 (1/25, 1/27)	Disturbances	5
5 (2/1) 5 (2/3)	Overflow & Review Exam 1 (covering weeks 1-5, chapters 1-5)	
6 (2/8, 2/10)	Communities & Biomes	6
7 (2/15, 2/17)	Effects of Geology and Climate	7
8 (2/24)	Movement of Plants and Animals	8
9 (3/1, 3/3)	Evolutionary Concepts	9
10 (3/8) 10 (3/10)	Overflow & Review Exam 2 (covering weeks 6-10, chapters 6-9)	
11 (3/15, 3/17)	Effects of Humans	12
12 (3/22, 3/24)	Interpreting Distributions Biological Diversity	13 14
13 (3/29, 3/31)	Diversity & Conservation	14,15
14 (4/5, 4/7)	No Class – AAG Meetings	
15 (4/12)	Overflow & Review	

Final Exam: Wednesday, April 20, 11:00 A.M. – 2:00 P.M. (comprehensive, in-class)

General Policies

Late Assignment Policies

Late assignments will be docked 20% per weekday that they are late. Labs may be turned in early. Make-up exams will ONLY be given in extreme circumstances for which adequate documentation is given in advance.

Geography Department Statement on Academic Dishonesty

The faculty of the Geography Department fully supports the Honor Code of Brigham Young University. You should know that in cases of academic dishonesty it is department policy to give an E on that part of the course (paper, homework, quiz, etc) in which academic dishonesty was involved. If the dishonesty involves a major portion of the course requirements, such as a midterm or final exam, the student may be given an E for the entire course. If the dishonesty involves copying someone else's work, unless they had no control over the situation, action will also be taken against the person allowing their work to be copied. Academic dishonesty of any type will be reported to the University Standards office. Please check the Internet site at <http://campuslife.byu.edu/honorcode/>

Preventing Sexual Harassment

Title IX of the Education Amendments of 1972 prohibits sex discrimination against any participant in an educational program or activity that receives federal funds. The act is intended to eliminate sex discrimination in education. Title IX covers discrimination in programs, admissions, activities, and student-to-student sexual harassment. BYU's policy against sexual harassment extends not only to employees of the university but to students as well. If you encounter unlawful sexual harassment or gender based discrimination, please talk to your professor; contact the Equal Employment Office at 422-5895 or 367-5689 (24-hours); or contact the Honor Code Office at 422-2847.

Students With Disabilities

Brigham Young University is committed to providing a working and learning atmosphere that reasonably accommodates qualified persons with disabilities. If you have any disability that may impair your ability to complete this course successfully, please contact the University Accessibility Center (422-2767). Reasonable academic accommodations are reviewed for all students who have qualified documented disabilities. Services are coordinated with the student and instructor by the UAC. If you need assistance or if you feel you have been unlawfully discriminated against on the basis of disability, you may seek resolution through established grievance policy and procedures. You should contact the Equal Employment Office at 422-5895, D-282 ASB.