

Fundamentals of Biogeography

Geog 351/557

Breland Hall Rm. 185

M W F 8:30-9:20 am

Professor: Dr. Carol L. Campbell

geobird@nmsu.edu

Office: Breland Hall Rm. 143

Office Hours: Monday 1:00-2:30 pm & Wednesday 12:30-2:30 pm

and by appointment

Graduate Assistant: Mr. Robert Sabie

rpsabie@nmsu.edu

Office: Breland Hall Rm 144

Office Phone: 575 646-4156

Office Hours: Tuesday 10:30-12:30 and Thursday 10:30-11:30 am

and by appointment

Materials:

Required of All Students: Geog 351 and Geog 557

Biogeography: Space, Time, and Life. Glen M. MacDonald, 2003

ISBN: 0471241938, available in the bookstore, check on-line for used, one copy on reserve in Zuhl library.

Recommended

Geog 557 Graduate Students Only

Foundations of Biogeography 2004. Editors: Lomolino, Sax, and Brown.

ISBN: 0226492370

This text is also, available on reserve in Zuhl Library. (Approximately \$40.00 new; it is a great resource for your library.)

Course Description and Objectives

Biogeography is the scientific study of the past, present and future geographic distributions of animals, plants and other organisms. Biogeographers seek to describe and map the geographic distributions of different species, but more importantly, they attempt to understand the physical, biological and historic factors that control these distributions. Of particular interest to biogeographers is how the actions of humans impact species and their distributions in the past, present and in the future. To address this, students will have an opportunity to conduct original research and present this research in a Biogeography Poster Session/Seminar to develop the skills necessary for professional networking.

The final exam is a Poster session on Wednesday, May 7 from 8:00 to 10:00 am in Breland 185. Arrive at 8 to set up. Poster session begins at 8:30. Guests welcome.

Research: Efforts to inspire you to become Biogeographers include a chance to conduct original research and to engage in a mock professional conference (poster session). This produces two documents: a poster and a research paper. The research and the resulting poster will be based on the scientific literature and will focus on a topic related to

biogeography. The research paper must include **10 or more references from peer-reviewed journals (not internet sites) – 15 or more for grad student research**. The poster will be presented during the final exam period; **May 7, 8:30 am**. The paper is 8-10 pages in length, double-spaced, 12 pt font, figures, pictures and references do not count in the page count.

The Research Project

Format: Literature review/poster presentation

Topic: Threatened & Endangered Species of New Mexico – the purpose is to summarize the knowledge and research that has been conducted about an organism of your choice, and identify the conservation issues, management efforts and prognosis for persistence of this organism. As a piece of writing, it must be focused on a research objective or question. It is not a list of references or an annotated bibliography, but more of a synthesis of current knowledge. This is often the introduction for a thesis.

Citation format will follow the Chicago Manual of Style.

http://www.chicagomanualofstyle.org/tools_citationguide.html. In general, paraphrase the content of a reference in your own words and give the author/date citation, in the text **and** the referenced style in the references or literature cited section. Include page numbers in the text citation for direct quotes (rarely used and which require quotation marks) and for graphs, tables or graphics used. Use first author's last name and the phrase "et al." for references of more than three authors when citing in the text. List all authors of a paper in the references section.

Geography 557 Graduate level

Graduate Readings:

This course provides you an opportunity to develop an understanding of biogeographic theory, how biogeography evolved into a discipline and who contributed to this end. Specifically, you will read a selection of important papers from the Foundations of Biogeography text, a copy of which is on reserve at the Zuhl Library. You will demonstrate your familiarity with and knowledge of these topics by writing short essays related to these general topics following each exam (usually choose 2 of 3 questions on which to write ≤ a page for in response for each question).

Graduate Research:

Your research paper/poster may be based on your thesis topic but **must** have some explicit connection to biogeography. Graduate students follow the same guidelines as the undergrads (poster and paper) but your paper/poster should be more polished, in depth, and ready for a professional conference. Your poster will be presented during the last week of classes along with the undergraduates in a Biogeography Poster Session. It is my hope that this exercise will aid in furthering your thesis progress, and with that end in mind, I will be flexible in the specific content required. Please take this as an opportunity to practice writing, to get feedback on your research and to produce a poster for presentation at the next conference of your professional society.

Academic Policies

Grading policies –There are **no make-up exams** (exceptional cases such as bereavement, illness, legal action, etc. require documentation to be considered for an alternate exam. In these limited circumstances you are responsible for arranging a date before the next lecture.)

Grades are determined based on a proportion of points such that >90% = A, 89-80% = B etc. **No late work** is accepted. If you miss an exercise or exam – you lost the points.

Withdrawals/Incompletes - Withdrawals from this course are the student's responsibility and the instructor will **NOT** withdraw or drop students from this class under any circumstances. Incomplete grades will not be given except under extraordinary circumstances related to serious illness, bereavement, etc. Documentation will be required in these limited circumstances.

Honesty - Academic Honesty is expected of all students. I DO check for plagiarism – let me show you how! Do your own work and cite your references. As stated in the University Undergraduate Catalog “Students at NMSU are expected to observe and maintain the highest academic, ethical and professional standards of conduct. Any student found guilty of academic misconduct shall be subject to disciplinary action.” Ignorance is not a viable excuse. Please refer to the following website regarding plagiarism.

<http://lib.nmsu.edu/instruction/plagiarismforstudents.htm>

Disabilities/Special Needs

Students with special needs including physical, psychological or learning disabilities are encouraged to contact the office of Services for Students with Disabilities (SSD). IF you have a documented disability and anticipate needing accommodations in this course, please meet with me as soon as possible. For more information about the programs and services available, including academic accommodations for students with disabilities, contact the office of SSD in Garcia Annex, 646-6840 (voice) or 646-1918 (TTD/text phone).

Week	Day/ Date	Topic	Activity	Points
1	F Jan 17	Introduction syllabus / research Ch 1: Intro and organization	walk/cards start reading text	5
2	M Jan 20	MLK Day	No School	25
	W Jan 22	Ch 1 & research topic	handouts	
	F Jan 24	Activity #1 outside	Walk/observe/note	
3	M Jan 27 *	Ch 2: Basics and Background	Canvas Quiz 1 terms (Ch 1-3) draft and poster outline	25
	W Jan 29	Ch 2 cont. – start Ch 3		
	F Jan 31	Research discussion		
4	Feb 3	Ch 3: Physical env. & distribution of life	Range maps in class	25
	Feb 5	Ch 4: Biological interactions & distrib. of life		
	Feb 7	Activity #2 in class		
5	Feb 10	Ch 5: Disturbance	Canvas Quiz 2 terms (Ch 4-6)	25
	Feb 12	Ch 6: Communities, formations & biomes		

	Feb 14	Activity #3 In lab: Breland 192	-internet access-data	25
6	Feb 17	Ch 6 continued		100
	Feb 19	Catch-up, Review		
	Feb 21	Exam 1 Ch 1-6	Exam 1 Ch 1-6	
7	Feb 24	Ch 7: Changing continents & climates		25
	Feb 26	Ch 8: dispersal, colonization, dispersal		
	Feb 28	Activity #4 in class	In class: Population sampling	
8	Mar 3	Ch 8: continue	Canvas Quiz 3 terms (Ch 7-9)	25
	Mar 5	Ch 9: Evol., speciation, extinction		50
	Mar 7	Research Discussion - Bring draft	Research outline - peer review	
9 (*W 3/11)	Mar 10	Ch 10: Realms & Regions		25
	Mar 12	Ch 11: Biogeography & human evolution	Canvas Quiz 4 terms (Ch 10-12)	
	Mar 14	Activity #5 outside	Field sampling (transect)	
10	Mar 17	Ch 11		Lab cancelled
	Mar 19	Ch 11: Biogeography & human evolution		
	Mar 21	Catch-up		
11	Mar 24-28	Spring Break	Watch movie	
12	Mar 31	Catch-up -	Movie response: Guns, germs & steel, or Collapse	100
	Apr 2	Ch 12: Humans as force in evol. & extinction		
	Apr 4	Ch 12		
13	Apr 7	Review		100
	Apr 9	Exam 2: Ch 7-12	Exam 2 Ch 7-12	
	Apr 11	Ch 13: Descr. & Interp. of biogeo distributions		
14	Apr 14	Ch 14: Geography of biological diversity		25
	Apr 16	Lecture	Canvas Quiz 5 terms (Ch 13-15)	
	Apr 18	Spring Holiday	No school	
15	Apr 21	Research-submit draft to canvas	In class Poster/draft workshop	25/25
	Apr 23	Ch 15 Biogeography & conservation		25
	Apr 25	Activity #6 Lab Land classification	Adopt a pixel-field sample	
16	Apr 28	Summary		100
	Apr 30	Review		
	May 2	FINAL EXAM* comprehensive Poster due by midnight 5/2/2014 canvas	Exam 3 Ch 13-15*	
	Wednesday May 7	Biogeographer's Ball*	Poster Session Final Research Paper	100 100

Assessments

All	Grad. Students only
Exams: 3 @ 100 each = 300	Graduate essays: 3 @ 50 -150
Quizzes: 5 @ 25 points = 125	
Activities: 6@ 25 points = 150	
Movie response: 1 @ 100 points = 100	
Participation: attendance points = 50	
Research - All	
Poster drafts 25+50 =75	
Poster final 100 + paper final 100	

*******ALL Students must participate in the final, May 7 to pass the class.**