

BIOL 4000 - Biogeography**Spring 2015**

Instructor: Dr. Ann Kohlhaas

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Office hours: Mondays 1-3 pm, Tuesdays 11 am – 12 noon; and by appointment.

Lecture: MWF 11 – 11:50 am, N221

Textbook: Biogeography (4th ed.) by Lomolino, Riddle, Whittaker, and Brown

The following schedule is tentative and subject to change. Major changes are not expected. The indicated chapters are reference reading from the textbook.

<u>Date</u>	<u>Subjects</u>	<u>Chapter</u>
Jan 28	Introduction to Biogeography	1
Jan 30	History of Biogeography	2

Feb 2	Ecology – Basic Principles	3,4
Feb 4	(cont.)	
Feb 6	Ecology – Biotic Factors	3,4

Feb 9	Ecology – Abiotic Factors	3,4
Feb 11	Geography of Natural Communities	5
Feb 13	Quiz 1 (50 pts.) + Historical Biogeography	

Feb 16	Historical Biogeography: introduction	8,9
Feb 18	Plate Tectonics	8,9
Feb 20	(cont.)	

Feb 23	Geological History	8,9
Feb 25	(cont.)	
Feb 27	Quiz 2 (50 pts) + Speciation	

March 2	Speciation	7
March 4	Speciation (cont.)	
March 6	Extinction	7

March 9	Dispersal & Immigration	6
March 11	Dispersal (cont.)	
March 13	Quiz 3 (50 pts.) + Geography of Diversification	

March 16	Geography of Diversification	10
March 18	(cont.)	
March 20	(cont.)	

March 23	Reconstructing Histories	11,12
March 25	(cont.)	
March 27	Quiz 4 (50 pts.) + Island Biogeography	

March 30	Island Biogeography - Basics (presentation topics due)	13, 14
April 1	Islands Biogeography – Equilibrium Theory	
April 3	(cont.)	

April 6-10	SPRING BREAK	

April 13	Islands Biogeography – Patterns & Processes	
April 15	(cont.)	
April 17	Quiz 5 (50 pts.) + Large Patterns	

April 20	Large Patterns in Diversity	15
April 22	(cont.)	
April 24	Applied Biogeography	16, 17

April 27	(cont.) (last chance extra credit)	
April 29	Presentations	
May 1	Presentations	

May 4	Presentations	
May 6	Presentations	

May 8 Presentations

May 11 Presentations

May 13 Quiz 6 (50 pts.)

May 15 Presentations

May 18, Monday, 11:15 am FINAL EXAM (50 pts.)

Objectives:

- learn the ecological, historical, and organismal processes that affect distributions
- examine patterns of diversity and the processes involved in those patterns
- examine the practical applications of biogeography
- review current literature in biogeography

Grading:

6 midterm quizzes (lowest dropped), 50 pts. each	250 pts.
1 presentation	50 pts.
<u>1 final exam, 50 pts.</u>	<u>50 pts.</u>
Total	350 pts.

Grades will be assigned on a percentage of the possible points earned, thus

A = 90+%; B = 80-89.5%; C = 70-79.5%; D = 60-69.5%; F < 60 %.

NOTE: there will be no “+” or “-” grades given. Also note that Credit/No Credit is not an option for this course.

Quizzes: Quizzes will be on material presented in lectures, student presentations, and readings from the textbook. Exam format may include essay questions, definitions, short answers, fill in the blanks, and multiple-choice. Quizzes will only be given as scheduled. A quiz missed for any reason will automatically be the lowest and thus dropped grade.

Final Exam: The final exam will be comprehensive and mostly come from the previous quizzes.

Alternative Grading: If you are satisfied with your grade average from all six quizzes plus the presentation (no dropped quizzes and without extra credit), then you can skip the final and take that average. If you miss the final for any reason, you will have this alternative grading. If you take the final, it will definitely count as listed above in “**Grading:**” and any extra credit will be added in.

Presentation (journal article):

The purpose of this presentation is to increase familiarity with scientific literature and to practice communications skills. This presentation will be on published refereed scientific paper in biogeography. Each presentation has three parts: an oral presentation, a written outline, and a written abstract. (detailed instructions in later handout)

The presentations must be on research papers (at least 6 pages long) published in scientific journals in 2014 or 2015. I suggest you look first in the journals Journal of Biogeography, Diversity and Distributions, and Global Ecology and Biogeography. These are completely available to you online via our library (i.e. www.csustan.edu → library → electronic journals). Articles from other journals will also be considered.

→When you think you have a paper that you want to present, bring a pdf copy of the first title page.

All presentation articles must be preapproved by your instructor by March 30.

(Sooner is better and I will give priority of paper choice and scheduling to those who bring their requests first.)

NOTE:

- Late materials will be deducted 10 % points for each weekday late.
- Presentations that are not given as scheduled will lose 10 pts. per day late.

Extra Credit:

You may earn 10 extra credit points for doing outside conservation-related work. You must obtain prior approval for the work from your instructor and sign a liability waiver. Examples of work that are likely to be approved include: helping with a conservation-related project at a park or refuge, helping with conservation-related research, or writing a 2-page abstract on a preapproved 2014 or later biogeography journal article. Note that any extra credit work is not a requirement for this course and that you must personally accept liability for your participation in any extra credit work. Also note, that any extra credit work must be approved by April 27 and will be due by May 8 at the beginning of class (11 am). No extra credit work will be approved after that time and final grades will be final.

Other:

- 1) Cheating and other forms of academic dishonesty (ex. plagiarism) will result in an automatic grade of F in the course. Note that plagiarism is using another's words without acknowledging the source. It includes minor tweaking of sentences and near quotes. Thus, when you do your presentation and associated outline and abstract, be sure that you use your own wording. Some special phrasings must stay the same to retain meaning, but "lifting" of entire sentences or using entire paragraphs with just some minor rewording are both considered plagiarism!
- 2) Cell phones should be **OFF** during class. Let me know if there is some reason why you need your cell phone on during class.
- 3) Audio and video recordings of this class are not allowed. Let me know if you have some reason why you think you should have an exception to this.