

**BIOL 4000 - Biogeography****Spring 2013**

Instructor: Dr. Ann Kohlhaas

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Office hours: Mondays 1-3 pm, Tuesdays 10-11 am; 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 1	Ecology – Basic Principles	3,4
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Feb 4	(cont.)	
Feb 6	Ecology – Abiotic Factors	3,4
Feb 8	Ecology – Biotic Factors	3,4
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Feb 11	Geography of Natural Communities	5
<b>Feb 13</b>	<b>Quiz 1 (50 pts.) + Historical Biogeography</b>	
Feb 15	Historical Biogeography: introduction	8,9
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Feb 18	Geological History	8,9
Feb 20	Geological History (cont.)	
Feb 22	Plate Tectonics	8,9
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Feb 25	(cont.)	
Feb 27	(cont.)	
<b>March 1</b>	<b>Quiz 2 (50 pts) + Speciation</b>	
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March 4	Speciation	7
March 6	Speciation (cont.)	
March 8	Extinction	7
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March 11	Dispersal & Immigration	6
March 13	Dispersal (cont.)	
<b>March 15</b>	<b>Quiz 3 (50 pts.) + Geography of Diversification</b>	
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March 18	Geography of Diversification	10
March 20	(cont.)	
March 22	(cont.)	
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March 25	Reconstructing Histories	11,12
March 27	(cont.)	
<b>March 29</b>	<b>Quiz 4 (50 pts.)</b>	
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<b>April 1 – 5</b>	<b>SPRING BREAK</b>	
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April 8	Island Biogeography	13, 14
April 10	(cont.)	
<b>April 12</b>	<b>(cont.) (presentation topics due)</b>	
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April 15	(cont.)	
April 17	(cont.)	
<b>April 19</b>	<b>Quiz 5 (50 pts.) + Large Patterns</b>	
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April 22	Large Patterns in Diversity	15
April 24	(cont.)	
April 26	Applied Biogeography	16, 17
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<b>April 29</b>	<b>(cont.) (last chance extra credit)</b>	
May 1	Presentations	
May 3	Presentations	
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May 6	Presentations	
May 8	Presentations	

May 10 Presentations

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**May 13 Quiz 6 (50 pts.)**

May 15 Presentations

May 17 Overview

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**May 20, Monday, 11:15 am FINAL EXAM (100 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, 100 pts.</u>	<u>100 pts.</u>
Total	400 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.

**NOTE: If your overall class average of all six quizzes plus the presentation (without extra credit) is in the A range (i.e., over 90 %), you will not be required to take the final exam.**

**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. Always bring scantron 882-ES. The final exam will be comprehensive. Note that your highest five quiz grades will be used in the calculation of your final grade. Quizzes will only be given as scheduled. A quiz missed for any reason will automatically be the lowest and thus dropped grade.

**Final Exam:** This will be comprehensive. Much of the exam is likely to come from the quizzes.

**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.

Each oral presentation will be 8-10 minutes duration using Powerpoint. It should include a short introduction to the study, an explanation of the methods, clear results, and a short conclusion of the major findings.

Each typed outline will be a brief outline of the informational points in the oral presentation. The outline must conclude with 2 major “points to remember” from the paper. Note: these cannot be “random” points, but must be the major conclusions of the research in the paper. Enough photocopies of the outline must be ready and given to everyone in the class prior to the oral presentation. This should be 1-2 pages in length, no more, no less.

Each typed abstract is, of course, on the paper being presented. An abstract consists of 1-2 sentences of introduction, 1-2 sentences on methods, and several sentences on major findings. This is generally written as one or two paragraphs. The lower and upper page limits for this are  $\frac{3}{4}$  to  $1\frac{1}{2}$  pages, double-spaced. Only one copy needs to be turned in directly to your teacher. This is also due on presentation day. Note that you cannot turn in the abstract which was published with your paper!

No quotes will be allowed in any part of the presentation or associated written tasks! No plagiarism allowed!

Grading will be on preparedness and knowledge of the paper’s contents and following the presentation instructions (another handout). Level of nervousness will not be graded. However, you are expected to present in as professional a manner as possible.

The presentations must be on research papers (at least 6 pages long) published in scientific journals in 2012 or 2013. 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](http://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.**

**Note: all presentation articles must be preapproved by your instructor by April 12.** (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.
- Any instance of cheating or plagiarism will result in an automatic F in the course.
- Cell phones should be off during class.

**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 2012 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 29 and will be due by May 10. 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 recording of this class are not allowed. Let me know if you have some reason why you think you should have an exception to this.