

Geography 323: Biogeography

Summer 2015 (CRN 40944)

Class meets:

- 10:00 – 12:50 pm Mon-Thurs
- June 22 – July 19
- 106 Condon Hall

Instructor: Erin Herring
(eherring@uoregon.edu)

Office Hours: Mondays and
Wednesdays from 1-2 pm 217
Pacific, or by appointment

Course Overview: Biogeography is
the study of the spatial patterns of
biological diversity both in the
present and in the past.

Biogeographers synthesize information from a broad range of fields, including ecology, evolution, paleontology, and climatology. This course will provide the ecological and historical foundations for understanding the distribution and abundance of species, and the changes in distribution and abundance of species over time. Concepts presented in this class are highly relevant to conservation issues related to human impacts on ecosystems and increasingly rapid climate change.

Prerequisite: GEOG 141, GEOL 103, GEOL 203 or BI 370.

Goals of the course:

- To develop an appreciation for the historical and ecological factors that influence the pattern of life on earth.
- To survey the scientific revolutions of evolution, plate tectonics, and molecular ecology that shaped the path to modern biogeography.
- Using the lab assignments, to apply the information covered in lecture to a real world scenario.
- To understand the processes that affect how biotas respond to a changing climate, and the challenges we face today and in years to come.

Course format: This is an intensive four-week course. Our class time will be at least 50% lecture, with the remainder spent on in-class activities, labs, and exams. Labs will require additional time outside of class to complete. Course readings should be completed before the class for which they are assigned.

Reading materials:

Biogeography: An Ecological and Evolutionary Approach, 8th Edition by C. Barry Cox, Peter D. Moore
ISBN 978-0-470-63794-4

May 2010, ©2010

Paperback, 520 pages

Available in the bookstore. Cheaper used versions are also available online.



Evaluation: Final grades will be assessed as:

- **Four take home exams at the end of each week, each worth 10% (40% of total grade)**
 - All of these exams will be taken on blackboard and under the “assessment” tab. The goal of these exams is not to test if you can memorize facts, but to see how well you can take the concepts discussed in class and apply them to the real world.
 - A discussion board will be set up on Blackboard before the start of each exam. You can post questions on this board and other students and I will respond.
 - Questions will be a combination of short answer (a sentence or two) and essay (paragraph, ≥5 sentences). If you feel that a picture/drawing should be included in the answer, you will have the option to upload a picture or two to answer a question.
 - The *first three exams* will be made available on Thursday, after class, and you will have until 11:59 pm on Saturday to complete it.
 - The *last exam* will be made available on Tuesday, July 14th, and you will have until 11:59 pm on Thursday (July 16th) to complete the exam. We will not meet for class on that Thursday, so you should have plenty of time to complete the exam. I will be in my office during class time, so feel free to stop by to ask questions.

- **Three lab assignments, each worth 10% (40% of total grade)**
 - Some of these labs will be have two parts (data collection and data analysis).
 - We will discuss and start the labs in class, and then you will need to complete the labs on your own time.
 - All labs should be typed and submitted on Blackboard.

- **Four homework & in-class activities: 15%**
 - At the end of each class I will give you a question to answer before the following class (except the day before that a homework assignment is due). We will be discussing answers in class, so please be prepared.
 - All “Questions of the Day” should be submitted on Blackboard and should be at least 1-5 sentences in length.

- **Presentations: 5%**
 - Each student will give two in class presentations.
 - One will comprise a detailed discussion on the biogeography of a specific region. This presentation should be 10-15 minutes in length.
 - The second presentation will be on an invasive species that has invaded the United States. This presentation should be 10-15 minutes in length.
 - Both presentations should be emailed to me at least one hour before the start of class the day you present.

*******No makeup exams will be offered unless you arrange this with me in advance. No makeups will be offered for in-class activities. Homework and labs will be assessed a 10% per day penalty if they are late.*******

Attendance is mandatory for both lecture and labs. You are responsible for all material covered in lab and lecture. Because of the intensive nature of summer classes, missing even one day of class will put you behind. I will only describe the lab assignments once. If you do have to miss a day for a legitimate reason, talk to me in advance. You will not pass this class if you skip lectures and lab.

Academic honesty: Academic dishonesty policies regarding both cheating and plagiarism will be strictly enforced (see: <http://uodos.uoregon.edu/StudentConductandCommunityStandards/AcademicMisconduct/tabid/248/Default.aspx>). Cheating: I encourage you to work with other students in the class, but all work that you turn in for a grade must be your own. **Plagiarism:** Quotations, paraphrases, and ideas based on published or on-line sources must be properly cited. Please consult the university policy (available on Blackboard) or ask me if you have any questions.

Disability Services Notice: I work hard to ensure a quality learning experience for all students. If you need specific accommodations to get the most out of this class, please let me know by (1) informing me of your particular needs, and (2) providing the appropriate documentation from the campus learning services office. I will make every effort to accommodate your needs, but you must notify me by the first week of class if you need special arrangements.

Note: I consider this syllabus a contract between myself and the students in this course. In writing this syllabus, I have obligated myself to follow the policies and procedures contained herein. You are responsible for understanding and following these policies as well. I reserve the right to make changes to this syllabus. You will receive verbal and written notification of major changes to course policies, procedures and content.

Class Schedule

Date	Class	Topic	Assignments
June 22	1	History of Biogeography	Ch. 1
June 23	2	Species distributions	Ch. 2, Start Lab 1
June 24	3	Communities, ecosystems, & climate	Ch. 3, HW 1 due
June 25	4	Biodiversity	Ch. 4, HW 2 due, Exam 1
June 29	5	Plate tectonics	Ch. 5, Lab 1 due, Start Lab 2
June 30	6	Evolution	Ch. 6
July 1	7	Phylogenetics & cladistics	Ch. 7
July 2	8	Island biogeography	Ch. 8, HW 3 due, Exam 2
July 6	9	Marine biogeography	Ch. 9, Lab 2 due, Start Lab 3
July 7	10	Paleoecology I	Ch. 10
July 8	11	Paleoecology II	Ch. 11
July 9	12	Ice ages	Ch. 12, HW 4 due, Exam 3
July 13	13	Humans & agriculture	Ch. 13, Lab 3 due, Start Lab 4
July 14	14	Conservation & future change	Ch. 14, Exam 4
July 15	15	Invasive Species Presentations	Lab 4 due
July 16	No class today – Exam 4 due at 11:59 pm		