

GGR305 H1S: Biogeography
Winter 2019
University of Toronto
Department of Geography and Planning

Instructor

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Sessional Lecturer
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Office Hours: Wednesdays 15:00 – 16:00, 17:00 – 18:00

Teaching Assistants

Pamela Tetford
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Course Description

Identifies patterns in and explains processes behind plant and animal distributions through space and time. Topics covered include ecological and evolutionary dynamics, disturbance, dispersal, migration, continental drift, speciation, extinction, paleoenvironments and island biogeography. We also examine terrestrial and marine biomes, the meaning of biodiversity, conservation challenges, and recent biogeographic changes associated with human impact.

Recommended Preparation

8.0 FCE's including GGR100H1 or (BIO120H1, BIO130H1)

Course Objectives

During the course of GGR305 students will:

1. Develop an integrative understanding of how ecological controls and evolutionary history work together to result in the modern distribution of organisms on Earth.
2. Gain an appreciation of the exciting modern research occurring in the field of biogeography, through regular contact with primary scientific literature.
3. Apply the foundational concepts of biogeography in the context of ongoing, rapid environmental change in the modern world.

Lectures

Date/Time: Wednesday 18:00 – 20:00
Location: SS 1073

While there is no formal attendance mark in the course, it is expected that you will make every attempt to attend each lecture throughout the term. As GGR305 only meets once per week, missing a lecture will result in your absence from the presentation and discussion of a significant amount of the courses material. Should you have cause to miss a class, it is solely your responsibility to ensure that you are up to date on the missed material.

Course Material

Required Textbook

Cox CB, Moore PD, Ladle R (2016) *Biogeography: An Ecological and Evolutionary Approach*, 9th Ed. Wiley-Blackwell. ISBN: 978-1118968581 [paperback]

Available from the Campus Bookstore

Quercus Online Environment

There will be an active Quercus environment associated with the course. This will be your portal for accessing lecture material, submitting assignments, and liaising with your fellow students related to course material. I expect that you will be checking Quercus regularly for updates related to the course. I also expect that announcements sent through Quercus will be received in a timely fashion; ensure your notification settings are adjusted to facilitate this.

Important Dates

Last day to cancel S section code courses without academic penalty: March 17, 2019

Evaluation and Mark Breakdown

Item	Weight	Due Date
Research Methods Assignment	15%	January 23, 2019
Extinction Assignment	20%	March 6, 2019
Island Biogeography Assignment	15%	March 27, 2019
Midterm Examination	20%	February 27, 2019
Final Examination	30%	Final exam period

Assignments

There will be three assignments during the term, which will cumulatively account for 50% of your final grade. A brief description of the assignments is provided here. Further details will follow, available in lecture and on Quercus.

Research Methods Assignment

You will choose an article published within the last 5 years (since 2013) in one of the *Journal of Biogeography*, *Ecography*, or *Global Ecology and Biogeography*. You will prepare a written summary of the study objectives and/or research questions, the methods used to address the study objectives, the main findings of the paper, and the broader significance of the findings to the field of biogeography. You will also identify concepts in the paper that you'd be interested in learning more about in class. Selected papers will be used as examples during the remainder of the term. More details on the assignment will be given in lecture 1. This assignment is due January 23. This assignment is worth 15% of your final grade.

Extinction Assignment

The question of whether the Earth is in the midst of a mass extinction event is a topic of intense debate among biogeographers. In this assignment you will summarize the arguments for and against the classification of the ongoing biodiversity crisis as a "mass extinction." This assignment is due March 6. This assignment is worth 20% of your final grade.

Island Biogeography Assignment

The concepts associated with the dispersal ability of organisms as they relate to islands are among the unifying concept of modern biogeography. In this assignment you will re-visit some of the classical data used to develop and support this theory, in order to develop a complete understanding of this critical topic, based on empirical data. This assignment is due March 27. This assignment is worth 15% of your final grade.

Examinations

A mid-term examination for GGR305 will take place during the normally scheduled class period on February 27, 2019. The midterm examination will account for 20% of your final grade in the course. It may be necessary to hold the exam in different classrooms; be sure to attend lecture and check Quercus for details well in advance of the exam date. The final examination for GGR305 will take place during the university scheduled examination period, which runs from April 6 – 30, 2019. The schedule for final examinations will be released in February. The final examination will be cumulative, and account for 30% of your final grade.

Deadlines / Late Assignment Policy

The penalty for handing in a late assignment will be the deduction of 5% of the assignment mark per day (i.e. an assignment marked out of 40 marks will lose 2 marks per day late). Weekends will count as two days, if applicable.

Missed Term Examination Policy

Students who miss the term test for valid reasons should contact the instructor immediately. Students who miss the term test are required to submit paper documentation as support. The instructor will coordinate with students to offer a makeup examination at the earliest mutually available date/time, once proper documentation has been received. Students with valid medical or non-medical documentation will also be given the option of writing a 50% final exam, in place of the midterm, at their discretion.

Where the reason for absence is a medical issue, students should have their medical practitioner fill out the “Verification of Student Illness or Injury form” as documentation.

<http://www.illnessverification.utoronto.ca/index.php>

For non-medical documentation, the Faculty of Arts and Science has guidelines, and a relevant form, that should be reviewed and followed.

<http://www.artsci.utoronto.ca/current/petitions/process#documentation>

Accessibility Services

The University of Toronto is committed to accessibility. If you require accommodations for a disability, or have any accessibility concerns about the course, the classroom or course materials, please contact Accessibility Services as soon as possible:

disability.services@utoronto.ca

Email Policy

Instructor-student interaction occurs in the classroom and during office hours. Email contact is limited to questions requiring simple yes/no answers, making appointments, and dealing with emergencies. Please come to my office hours or see me after class if you wish to discuss matters related to the class.

Academic Integrity

Plagiarism is an academic offense at the University of Toronto. Plagiarism is quoting (or paraphrasing) the work of an author (including the work of fellow students) without proper use of citation. Quotation marks are required when using an author's words. Students also should not be submitting any academic work for which credit has previously been obtained or is being sought, without first discussing with the instructor. Please consult the "Rules and Regulations" section of the Arts and Science Calendar <https://fas.calendar.utoronto.ca/rules-regulations#marks> for further information and check the 'How not to plagiarize' website at: <http://www.writing.utoronto.ca/advice/using-sources/how-not-to-plagiarize>.

Course Schedule (subject to modification)

Date	Lecture Topic	Textbook Readings
January 9	Introduction and History of Biogeography	Chapter 1
January 16	A Brief History of Life on Earth	Chapters 5, 12 (selected sections)
January 23	Evolution and Speciation	Chapter 6
January 30	Dispersal	Chapter 2
February 6	Ecological Niches	Chapter 3
February 13	Extinction	Chapters 7, 9
February 20	Reading week – No class	
February 27	MIDTERM	
March 6	Islands Biogeography	Chapter 7
March 13	Disturbance	Chapter 8
March 20	Biodiversity	Chapter 4
March 27	Conservation Biogeography	Chapter 14
April 3	Global Environmental Change	Chapter 13
April 6 – 30	FINAL EXAM PERIOD	