

University of Toronto
Department of Geography & Planning
GGR305H1-S: Biogeography
Winter 2020

Course Information

<i>Time and Location:</i>	Wednesday 6 - 8 pm Sandford Fleming Building Rm 3202
<i>Instructor:</i>	Dr. Sarah Peirce
<i>Contact:</i>	Office – Sidney Smith, Rm 5019 Email – s.peirce@utoronto.ca
<i>Office Hours:</i>	TBD or by appointment
<i>Teaching Assistant:</i>	Victoria Nimmo

Course Description

Biogeography is the study of the distribution of life on the Earth's surface, from genes to species, to entire ecosystems.

Topics covered in this course 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 impacts.

Course weight: 0.5 Full Course Equivalent (FCE)

Recommended Preparation: 8.0 FCE's including JEG100H1/GGR100H1 or (BIO120H1, BIO130H1)

Learning Outcomes

By the end of the course, you will be able to:

- Describe the geographic distributions of plants and animals and explain how they are shaped by physical and ecological controls across spatial and temporal scales;
- Identify how evolutionary, tectonic, and climatic processes have shaped the distribution of organisms over geologic time, and led to their modern distribution;
- Evaluate human impacts on species and ecosystems in the past and during the modern era;
- Apply quantitative and spatial reasoning through analysis and interpretation of data, graphs, and maps;
- Manipulate, analyze, and interpret raw data;
- Synthesize scientific literature from the field of biogeography into written formats aimed at an appropriate audience.

Course Format

Lectures and Quercus

This course will use the online teaching and learning platform, Quercus, for providing you with lecture slides, assignment details, and grades (<https://q.utoronto.ca/>). Lecture slides will be posted in advance of class time. Lecture slides are not a substitute for attending class and may not contain all of the lecture content.

It is your responsibility to visit the Quercus website regularly to access important course information and materials.

Active participation

Active learning can improve student engagement and long-term retention of course material. This upper year course may use activities like polls, brainstorming, work periods, and discussions to enhance the learning experience of you and your peers. Please come to class prepared to participate and be respectful to your peers and instructors. This includes attending lectures, arriving in class on time, not using offensive language, and using electronic devices (e.g. cell phones and laptops) for classroom-purposes only.

Course Materials

Primary textbook (required)

- Cox, C.B., P.D. Moore and R. Ladle (2016) *Biogeography: An Ecological and Evolutionary Approach, 9th Ed.* Wiley-Blackwell, NJ.

This text will be available electronically through course reserves. It can also be purchased from the U of T Bookstore.

Supplementary material

Additional supplemental readings consisting of book chapters and journal articles may be announced in lecture.

Methods of Evaluation

Species Distribution Report	15 %	Due February 12 (beginning of class)
Scientific Report	20 %	Due March 25 (beginning of class)
Term Test	25 %	February 26, in-class
Final Exam	40 %	TBA

Assignments

For this course, you will write two (2) reports. The purpose of these reports is to contribute to your understanding of biogeography, to enhance your writing, and to have you engage with data and scientific literature related to course topics.

One (1) of these reports involves basic graphing, data analysis, and data interpretation. Additional assignment details will be shared during class and on Quercus. Please reach out to the teaching team if you have questions about these reports or need assistance with graphing, we are here to support you.

Tests

The term test will take place during class on Wednesday, February 26 (see schedule) and will cover all the course material (lectures, readings, discussions, and assignments) leading up to that date. A cumulative final exam will take place during the scheduled exam period at the end of the semester.

Course Schedule

Anticipated Schedule

Week	General Topic	Textbook Readings	Activities
1 – Jan 8	Introduction / Physical Setting	Chapter 1, 2	
2 – Jan 15	Physical Setting	Chapter 2, 3, 9	
3 – Jan 22	Patterns of Biogeography	Chapter 4	
4 – Jan 29	Evolution and Speciation	Chapter 6	
5 – Feb 5	Evolution and Speciation	Chapters 8	
6 – Feb 12	Plate Tectonics	Chapter 5, 10, 11	Assignment 1 due
Feb 17 – 21	Reading Week	-	-
7 – Feb 26	Term Test	-	Term Test
8 – Mar 4	Island Biogeography	Chapter 7	
9 – Mar 11	Quaternary Biogeography	Chapter 12	
10 – Mar 18	The Anthropocene and Modern Extinctions	Chapter 13	
11 – Mar 25	Conservation Biogeography	Chapter 14	Assignment 2 due
12 – Apr 1	Climate Change and Review	-	

Please note that this is an anticipated schedule and list of topics. If necessary, changes to the topics or readings will be announced during class.

Course Policies

Communication and email

You are encouraged to ask course related questions during class, during office hours, and in course discussion forums. When using email, you must use your U of T account as other email addresses may be filtered as spam. Also, please include GGR305 in the subject heading, and your full name in the text. I will typically respond to emails within 24 hours, excluding weekends and holidays. Emails received after 5 pm will typically be replied to the following business day.

Assignment submission and late penalties

Hard copies of the assignments will be submitted in-person at the beginning of class time (i.e. 6 pm on the due date). Assignments not submitted in class must be submitted to the assignment Drop Box located outside of the main office (Sidney Smith 5047) of the Department of Geography and Planning (9 am – 5 pm).

Assignments submitted after 5 pm must be placed in the 'After Hours Assignment Drop Box.' Assignments submitted to the 'After Hours Assignment Drop Box' will be date stamped for the following day.

Late assignments will receive a deduction of 5% per day (including weekends). Late assignments will not be accepted after 7 days.

Accommodations

If you are seeking accommodation for a late assignment or a missed term test, you must submit a request to the instructor or academic unit as soon as possible and no later than one (1) week after the assignment due date or test date. The request should include appropriate original documentation, such as the Verification of Illness or Injury form (www.illnessverification.utoronto.ca). Additional details on missed term tests can be found at: <https://fas.calendar.utoronto.ca/term-work-tests-and-final-exams>. Deferred final exams are dealt with by the Registrar's office of your college.

Please alert the instructor as soon as possible, and at least two weeks in advance, if assignment due dates or midterm test conflict with religious observances so that reasonable alternate arrangements can be made.

Re-marking requests

Requests for re-marking of assignments or the midterm must be made to the instructor within two weeks of receiving the grade, after which the mark is considered final. Please provide a written document or email with your name, the course code, and a short explanation of what you would like re-graded and why. Your material will be re-graded by the person who originally graded it (either TA or instructor). Please note that if you submit your material for re-grading, your mark can increase or decrease.

Electronic Devices

Students are encouraged to bring electronic devices (e.g. cell phone, laptops, tablets etc.) to class for participation in classroom activities like online polls. Outside of use for in class activities, students should have their cell phones turned off. No electronic devices will be allowed during tests or examinations.

Additional Statements

Accessibility

Students with diverse learning styles and needs are welcome in this course. If you have a disability or health consideration that may require accommodations, please approach me and/or the Accessibility Services Office as soon as possible at 416-978-8060 or <http://www.accessibility.utoronto.ca/>.

Academic integrity

Academic integrity is fundamental to learning and scholarship at the University of Toronto. Participating honestly, respectfully, responsibly, and fairly in this academic community ensures that the U of T degree that you earn will be valued as a true indication of your individual academic achievement and will continue to receive the respect and recognition it deserves.

The University of Toronto's Code of Behaviour on Academic Matters (<http://www.governingcouncil.utoronto.ca/policies/behaveac.htm>) outlines the behaviours that constitute academic misconduct, the processes for addressing academic offences, and penalties that may be imposed. Potential offences include, but are not limited to:

- In papers and assignments:
 - Using someone else's ideas or words without appropriate acknowledgement.
 - Submitting your own work in more than one course without the permission of the instructor.
 - Making up sources or facts.
 - Obtaining or providing unauthorized assistance on any assignment (this includes working in groups on assignments that are supposed to be individual work).
- On tests and exams:
 - Using or possessing any unauthorized aid, including a cell phone.
 - Looking at someone else's answers.
 - Letting someone else look at your answers.
 - Misrepresenting your identity.
 - Submitting an altered test for re-grading.
- Misrepresentation:
 - Falsifying or altering any documentation required by the University, including (but not limited to) doctor's notes.
 - Falsifying institutional documents or grades.

All suspected cases of academic dishonesty will be investigated following the procedures outlined in the *Code of Behaviour on Academic Matters*. If you have any questions about what is or is not permitted in this course, please do not hesitate to contact me. If you have questions about appropriate research and citation methods, you are expected to seek out additional information from me or other available campus resources like the [College Writing Centres](#), the [Academic Success Centre](#), or the [U of T Writing Website](#).

Additional Resources

Library Support

For this course, library services are available at <https://onesearch.library.utoronto.ca/ask> and through the following librarian liaison:

Robarts Library - Eveline Houtman, eveline.houtman@utoronto.ca

Writing Support

A helpful resource for this course is the University of Toronto's Writing website (<https://writing.utoronto.ca/>), which includes links to campus Writing Centres (<https://writing.utoronto.ca/writing-centres/arts-and-science/>) as well as advice pages on academic writing (<https://advice.writing.utoronto.ca/>).

Support Services

Office of the Faculty Registrar: <https://www.artsci.utoronto.ca/current/faculty-registrar>
Student Services and Support:
<https://future.utoronto.ca/current-students/student-services-campus-life/student-services-and-support/#tab-stgeorge>

Mental Health

If you or someone you know is experiencing distress, there are resources to assist you including:

- Your College Registrar
- Health and Wellness Centre (<https://www.studentlife.utoronto.ca/hwc>)
- Student Life (<http://www.studentlife.utoronto.ca/feeling-distressed>)

An important part of the University experience is learning how and when to ask for help. Please take the time to inform yourself of available resources.