

GEOG 2320A – Introductory Biogeography Course Outline: Section 001 Fall 2021

This course is taught in-person

1. Course Information



	Delivery Mode	Day/Time	Location
Lecture	In-person	Th / 9:30-11:30 am	SSC 3010
Lab	In-person	Th / 1:30-2:30 pm	UCC 59

Classes Start	Fall Reading Week	Classes End	Study day(s)	Exam Period
September 8	November 1-7	December 8	December 9	December 10-21

September 16, 2021: Last day to add a first-term half course

October 11, 2021: Thanksgiving Holiday

November 12, 2021: Last day to drop a first term half course without penalty



Course Instructor	Contact Information	Office Hours
David Goldblum	david.goldblum@uwo.ca	Tu: 10:00 am – 11:30 pm,
	SCC 2403/2415 – will likely change during the term	Th: 2:30 – 3:30 pm, or by appointment

Teaching Assistant	Contact Information	Office Hours
Aranya Iyer	aiyer25@uwo.ca	Th: 3:30 – 5:00 pm



• Office hours will be held in-person. One-on-one Zoom meetings can be arranged – email the instructor or TA.

2. Calendar Description

Spatial distributions of plants and animals; evolutionary and environmental controls on distributions; impacts of human settlement.

2 lecture hours, 1 laboratory hour, 0.5 course Antirequisite(s): none

Prerequisite(s): 1.0 course from Geography 1100, Geography 1200A/B, Geography 1300A/B, Geography 1400F/G, Geography 1500F/G, Geography 2131A/B, Geography 2132A/B, Geography 2133A/B, Geography 2142A/B, Geography 2152F/G, Geography 2153A/B, Environmental Science 1021F/G; or enrolment in the Major in Physical Geography and Environment.

Prerequisite checking is the student's responsibility

Senate Regulations state, "unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you will be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites."

3. Textbook

Required text: Lomolino, M.V., B.R. Riddle, & R.J. Whittaker. 2016. Biogeography. 5th edition. ISBN 978- 1605354729 (Available as 1-day loan at Taylor Library [TAY QH84.B76 2017]).



Other biogeography textbooks are available and would also be useful resources, including previous editions of the above textbook:

- Lomolino, M.V., B.R. Riddle, & J.H Brown. 2010. Biogeography. 4th edition. Taylor: QH84 B76 2010
- Lomolino, M.V., B.R. Riddle, & J.H Brown. 2006. Biogeography. 3rd edition. Weldon: QH84 B76 2006
- Cox, B.C. & P.D. Moore. 2005. Biogeography: an ecological and evolutionary approach. 7th edition. Taylor: QH84 C95 2005

Additional resources (articles) will be posted in OWL

4. Communication

- Check the OWL site frequently for announcements and course postings, but important
 announcements will be made in class, and it is your responsibility to attend lecture to
 receive that information.
- Students can email the instructor and teaching assistant(s) using OWL "messages" or directly via regular email channels.
- Emails sent to the instructor and TA should come from your UWO official email account. You can read about the privacy and security of the UWO email accounts here.
- Emails will be monitored daily; students will receive a response in 24 48 hours if not sooner



5. Course Objectives and Format

This course provides an introduction to biogeography, the study of distributions of organisms. Biogeography is a broad subject that overlaps several disciplines including biology, geography, and geology. It is often subdivided on the basis of organisms studied, regions, or methodologies. This course will combine both historical and ecological perspectives in analyzing plant and animal distributions. Human impacts on biotic distributions and applications of biogeography to conservation will also be discussed in some detail.

Lecture attendance is **not** required, but it is strongly encouraged. Lecture PowerPoint slides will be available on OWL, but slides only have basic information and broad topics.

Tutorial attendance may be required for some meetings as participation and engagement will be assessed.



Late tutorial assignments will be penalized at 25%/day, unless accompanied by a valid excuse provided to the instructor or TA.

All course material will be posted to OWL: http://owl.uwo.ca. Any changes will be indicated on the OWL site and discussed with the class.

<u>Google Chrome</u> or <u>Mozilla Firefox</u> are the preferred browsers to optimally use OWL; update your browsers frequently. Students interested in evaluating their internet speed, please click <u>here.</u> [Using the right browser is important, especially when using different features integrated with OWL]

If students need assistance, they can seek support on the <u>OWL Help page</u>. Alternatively, they can contact the <u>Western Technology Services Helpdesk</u>. They can be contacted by phone at 519-661-3800 or ext. 83800.

6. Learning Outcomes

Upon successful completion of this course, students will be able to:

- Explain patterns of species distributions in terms of physical, ecological, and historical controls
- Locate and explain the major terrestrial biomes
- Understand the role of global processes that operate at geological and evolutionary time scales (e.g., climate change, plate tectonics, speciation, extinction)



- Understand the linkages between patterns and processes across a range of spatial and temporal scales Explain human impacts on species and ecosystems from the Pleistocene to the modern times
- Understand the Theory of Island Biogeography and how it can be applied to present-day conservation efforts
- Explain the impacts of contemporary environmental change (climate change, deforestation, fire policy, spread of exotic species) on ecosystems
- Undertake basic data manipulation, graphical representation, interpretation, and analysis



- Produce basic scientific reports and begin to critically analyze scholarly literature
- Find, interpret, summarize, and apply information found in primary scientific literature to biogeographic questions.
- Effectively communicate biogeographic principles in writing

7. Course Content and Schedule

Week	Dates	Topic	Readings	Lab
1	Sept 8-10	Origins and history of biogeography	Chapters 1 & 2	Orientation
2	Sept 13-17	Species distributions	Chapter 4	UWO forest fieldtrip
3	Sept 20-24	Communities and Biomes	Chapter 5	Forest data lab I
4	Sept 27-Oct 1	Traditional Ecological Knowledge	OWL readings	Forest data lab II
5	October 4-8	Changing continents and climates	Chapter 8	TEK Seminar
6	October 11-15	Dispersal, colonization, and invasion	Chapter 6	Global biomes
7	October 17-22	Geographic variation, speciation, and extinction	Chapter 7	Ontario forests
8	October 24-29	Species diversity	Chapter 14	MIDTERM (OCT 28)
9	November 1-5	Reading Week – No Class	N/A	NO LAB
10	November 8-12	Disturbance and succession	OWL readings	Tree ring and climate lab
11	November 15-19	Island biogeography theory	Chapter 13	Forest change in Rocky Mts. lab
12	November 22-26	Quaternary vegetation history in North America	OWL readings	Island Biogeography Theory lab
13	Nov 29- Dec 3	Climate change and forests in North America	OWL readings	Forests and climate change lab
14	December 6-8	No Class		NO LAB



8. Evaluation

Below is the evaluation breakdown for the course. Any deviations will be communicated.



Assessment	Format	Weighting	Due Date
Laboratory assignments	Written submissions	15%	weekly
Annotated bibliography	Written submission	5%	Nov 12
Research paper	Written submission	20%	Dec 8
Midterm exam	In person (in class)	25%	Oct 28: In lab class
Final exam	In person	35%	TBA

Students are responsible for material covered in the lectures, information provided in tutorials, as well as the assigned chapters in the text and readings posted in OWL.

- All assignments are due at 11:55 pm EST unless otherwise specified
- Written assignments will be submitted to Turnitin (statement in policies below)
- Students will have unlimited submissions to Turnitin
- Rubrics will be used to evaluate assessments and will be posted with the instruction.
- A mixed exam (midterm and final exam) format (e.g. multiple choice, fill-in-theblanks, short answer, diagram questions) will be used.

Assignment Summaries

Further details will be provided as each assignment is introduced in class, but below is some basic information.

- Laboratory Assignments (15%) There will be weekly assignments in the laboratory section. Time will be given in class for the completion of the assignment, but the assignment will require work outside of class time and will be due before the subsequent laboratory section meeting. The nature and tasks in these assignments will vary and could include fieldtrips, computer analysis, write-ups, discussions, internet research, and presentations.
- Annotated Bibliography (5%) As part of the process of researching for your Research Paper, you will submit the annotated bibliography assignment which will require you to present summaries and details about a number of scientific articles on your chosen paper topic. When you submit your annotated bibliography you will also include a brief summary of your research topic and a preliminary outline for your paper. Details and more information will be presented in class.
- Research paper (20%) This will be a literature review paper on a topic approved by
 the instructor. You should use a minimum of eight sources from scientific journals,
 you may also use no more than three websites (provided they are from government
 or NGOs sites), and you can use scholarly books as additional resources. Details of the
 assignment will be provided in class.

Click <u>here</u> for a detailed and comprehensive set of policies and regulations concerning examinations and grading. The table below outlines the University-wide grade descriptors.

A+	90-100	One could scarcely expect better from a student at this level
Α	80-89	Superior work which is clearly above average
В	70-79	Good work, meeting all requirements, and eminently satisfactory
С	60-69	Competent work, meeting requirements
D	50-59	Fair work, minimally acceptable
F	below 50	Fail



Information about late or missed evaluations:

For Western University Policy on Accommodation for Medical Illness and a downloadable Student Medical Certificate (SMC) see <u>Policy on Accommodation for Illness</u>.

Students seeking academic accommodation on medical grounds for any missed tests, exams, participation components and/or assignments worth 10% or more of their final grade **must** apply to the Academic Counselling office of their home Faculty and provide documentation. Academic accommodation cannot be granted by the instructor or department. If the midterm exam is missed, and the student was granted academic accommodation by their home Faculty, a make-up test will be offered.



For non-documented medical absences or non-medical absences, late assignments will be given a penalty of 25% per day from the final grade for the assignment for a maximum of four days. After four days the assignment will result in a grade of 0. Students looking for a change in a deadline are asked to submit a request to the course instructor as soon as possible. For assignments worth less than 10%, the student must submit a request for accommodation to the instructor. Medical documentation will not be required. Late assessments with illness self-reports should be submitted within 24 hours of submission of the last illness self-report

An assessment cannot be submitted after it has been returned to the class; [an alternate assessment will be assigned] OR [the weight will be transferred to the final grade]

Grades <u>will not be adjusted</u> on the basis of need. It is important to monitor your performance in the course. Remember: *You* are responsible for your grades in this course.

9. Accommodation Policies

Students with disabilities work with Accessible Education (formerly SSD) which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. The accommodation policy can be found here: Academic Accommodation for Students with Disabilities.

Academic Consideration for Student Absence

Students will have up to two (2) opportunities during the regular academic year to use an on-line portal to self-report an absence during the term, provided the following conditions are met: the absence is no more than 48 hours in duration, and the assessment for which consideration is being sought is worth 30% or less of the student's final grade. Students are expected to contact their instructors within 24 hours of the end of the period of the self-reported absence, unless noted on the syllabus. Students are not able to use the self-reporting option in the following circumstances:

- for exams scheduled by the Office of the Registrar (e.g., December and April exams)
- absence of a duration greater than 48 hours,
- assessments worth more than 30% of the student's final grade,
- if a student has already used the self-reporting portal twice during the academic year

If the conditions for a Self-Reported Absence are *not* met, students will need to provide a Student Medical Certificate if the absence is medical, or provide appropriate documentation if there are compassionate grounds for the absence in question. Students are encouraged to contact their Faculty academic counselling office to obtain more information about the relevant documentation.

Students should also note that individual instructors are not permitted to receive documentation directly from a student, whether in support of an application for consideration on medical grounds, or for other reasons. All documentation required for absences that are not covered by the Self-Reported Absence Policy must be submitted to the Academic Counselling office of a student's Home Faculty.

For Western University policy on Consideration for Student Absence, see

<u>Policy on Academic Consideration for Student Absences - Undergraduate Students in First Entry</u> Programs

and for the Student Medical Certificate (SMC), see:

http://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf.

Religious Accommodation

Students should consult the University's list of recognized religious holidays, and should give reasonable notice in writing, prior to the holiday, to the Instructor and an Academic Counsellor if their course requirements will be affected by a religious observance. Additional information is given in the Western Multicultural Calendar.

10. Make-up Examinations

Makeups will be granted with approved documentation only. All documentation for missed exams must be provided to the Academic Counselling Office within 48 hours of the scheduled exam, otherwise the instructor will assign a grade of zero. The format and content of make-ups may differ substantially from the scheduled test or examination.

11. Use of Electronic Devices

No electronic devices will be allowed during tests and examinations.

12. How to Be Successful in this Class:

Students enrolled in this class should understand the level of autonomy and self-discipline required to be successful.

- 1. Invest in a planner or application to keep track of your courses. Populate all your deadlines at the start of the term and schedule time at the start of each week to get organized and manage your time.
- 2. Make it a daily habit to log onto OWL to ensure you have seen everything posted to help you succeed in this class.
- 3. Take notes as you go through the lesson material. Keeping handwritten notes or even notes on a regular Word document will help you learn more effectively.
- 4. Connect with others. Try forming a study group and try meeting on a weekly basis for study and peer support.
- 5. Do not be afraid to ask questions. If you are struggling with a topic, check the online discussion boards or **contact your instructor** and or teaching assistant.



13. Continuity of Education Plan (in-person class pivoting to online learning)

In the event of a COVID-19 resurgence during the course that necessitates the university to direct courses move away from face-to-face interaction, all remaining course content will be delivered entirely online, either synchronously (i.e., at the times indicated in the timetable) or asynchronously (e.g., posted on OWL for students to view at their convenience). The grading scheme will **not** change. Any remaining assessments will also be conducted online as determined by the course instructor.

14. Information on COVID-19

Masking Guidelines

Students will be expected to wear triple layer, non-medical, paper masks at all times in the classroom as per University policy and public health directives. Students who are unable to wear a mask must seek formal accommodation through Western Accessible Education, and present medical documentation.

Students are not permitted to eat or drink while in class to ensure masks stay in place. Students will be able to eat and drink outside of the classroom during scheduled breaks.

Students unwilling to wear a mask as stipulated by Western policy and public health directives will be referred to the Dean, and such actions will be considered a violation of the student Code of Conduct.

Course Absences due to Daily COVID Screening Questionnaire

Missed assessments (e.g., presentations, essays, quizzes, tests, midterms, etc.) require formal <u>academic considerations</u> (typically self-reported absences and/or academic counselling).

15. Academic Offences

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a <u>Scholastic Offence</u>.

All required papers may be subject to submission for textual similarity review to the commercial plagiarism detection software under license to the University for the detection of plagiarism. All papers submitted for such checking will be included as source documents in the reference database for the purpose of detecting plagiarism of papers subsequently submitted to the system. Use of the service is subject to the licensing agreement, currently between The University of Western Ontario and Turnitin.com (http://www.turnitin.com).

[Include this paragraph on computer marked multiple-choice tests if relevant. If not relevant delete the paragraph below]

Computer-marked multiple-choice tests and/or exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

16. Western's Commitment to Accessibility

The Department of Geography and Environment strives at all times to provide accessibility to all faculty, staff, students and visitors in a way that respects the dignity and independence of people with disabilities.

Please contact the course instructor if you require material in an alternate format or if you require any other arrangements to make this course more accessible to you. You may also wish to contact Services for Students with Disabilities (SSD) at 519-661-2147 for any specific question regarding an

accommodation. <u>Information regarding accommodation of exams</u> is available on the Registrar's website. More information about <u>"Accessibility at Western"</u> is available.

17. Mental Health

If you or someone you know is experiencing distress, there are several resources here at Western to assist you. Please visit Western's <u>Health and Wellness website</u> for more information on mental health resources.

18. Support Services

Western's Support Services
Student Development Centre

19.Important Dates

September 8: Classes resume

September 16: Last day to add a first term half course

October 11: Thanksgiving Holiday – Department Office Closed

November 1 to November 7: Fall Reading Week (No classes; Department Office open)

November 12: Last day to drop a first term half course without penalty

November 30: Last day to drop a full course without penalty

December 8: Classes end December 9: Study day

December 10-21: Examination Period