

ORIGINAL COURSE IMPLEMENTATION DATE:

REVISED COURSE IMPLEMENTATION DATE:

January 2007 September 2017

COURSE TO BE REVIEWED: (six years after UEC approval)

Course outline form version: 09/15/14

May 2020

# OFFICIAL UNDERGRADUATE COURSE OUTLINE FORM

Note: The University reserves the right to amend course outlines as needed without notice.

Course Code and Number: GEOG 219		Number of Credits: 4 Course credit policy (105)					
Course Full Title: Biogeography Course Short Title (if title exceeds 30 charact	ters):						
Faculty: Faculty of Social Sciences		Department (or program if no department): Geography and the Environment					
Calendar Description:	•						
Biogeography integrates geography, biology, geology, paleontology, and ecology. Learn how biogeographers study species distribution, track continental drift, and use fossils to help understand evolutionary changes in flora and fauna through geologic time.							
Note: Field trips outside of class time will be r Note: This course is offered as GEOG 219 (for for credit.	=				<u>=</u> '		
Prerequisites (or NONE):	One of the following: AGRI 163, BIO 105, BIO 106, BIO 111, CHEM 105, CHEM 110, CHEM 113, CHEM 150, GEOG 101, GEOG 102, GEOG 103, GEOG 116, PHYS 100, PHYS 101, PHYS 105, or PHYS 111.						
Corequisites (if applicable, or NONE):	None						
Pre/corequisites (if applicable, or NONE):	None						
Equivalent Courses (cannot be taken for additional credit) Former course code/number: GEOG 317/BIO 317 Cross-listed with: BIO 219 Equivalent course(s): BIO 219, GEOG 317/BIO 317 Note: Equivalent course(s) should be included in the calendar description by way of a note that students with credit for the equivalent course(s) cannot take this course for further credit.  Total Hours: 90 Typical structure of instructional hours:			Transfer Credit  Transfer credit already exists:   Yes  No  Transfer credit requested (OReg to submit to BCCAT):  Yes  No (if yes, fill in transfer credit form)  Resubmit revised outline for articulation:  Yes  No  To find out how this course transfers, see bctransferguide.ca.  Special Topics  Will the course be offered with different topics?  Yes  No				
Seminars/tutorials/workshops Laboratory hours Field experience hours		26 16 16		If yes, different lettered courses may be taken for credit:  ☐ No ☐ Yes, repeat(s) ☐ Yes, no limit			
Experiential (practicum, internship, etc.) Online learning activities Other contact hours:	Tatal	6		Note: The specific topic will be recorded when offered.  Maximum enrolment (for information only): 25			
	Total	Expected frequency of course offerings (every semester, annually, every other year, etc.): Annually					
Department / Program Head or Director: Steve Marsh					Date approved:	December 2016	
Faculty Council approval					Date approved:	January 2017	
Campus-Wide Consultation (CWC)					Date of posting:	March 17, 2017	
Dean/Associate VP: Lucy Lee					Date approved:	January 2017	
Undergraduate Education Committee (UEC) approval					Date of meeting:	March 24, 2017	

## **Learning Outcomes**

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

- describe how continental drift and natural selection are the contemporary paradigms of geology and biology;
- differentiate between emechanisms that regulate the distribution of flora and fauna;
- compare biogeographical regions and discuss how these regions might change over time
- evaluate phylogenetic and cladistic biogeography through geologic time
- Explain how North America was colonized by people;
- Relate environmental change to aspects of indigenous cultures;
- keep professional field and laboratory notes;

Prior Learning Assessment and Recognition (PLAR)  ☐ Yes ☐ No, PLAR cannot be awarded for this course because  Typical Instructional Methods (guest lecturers, presentations, online instruction, field trips, etc.; may vary at department's discretion)  Course format will include lectures, presentations, discussions, laboratory sessions and field trips.  Grading system: Letter Grades: ☐ Credit/No Credit: ☐ Labs to be scheduled independent of lecture hours: Yes ☐ No ☐									
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Grading system: Letter Grades: X Credit/No Credit: X Labs to be scheduled independent of lecture hours: Yes X No X	Course format will include lectures, presentations, discussions, laboratory sessions and field trips.								
Grading system: Letter Grades:  ☐ Credit/No Credit: ☐ Labs to be scheduled independent of lecture hours: Yes ☐ No ☐									
NOTE: The following sections may vary by instructor. Please see course syllabus available from the instructor.									
Typical Text(s) and Resource Materials (if more space is required, download Supplemental Texts and Resource Materials form)									
Author (surname, initials) Title (article, book, journal, etc.)  Current ed. Publisher Year									
1. Cox, C.B., P.D. Moore, R.J. Ladle Biogeography: An ecological and evolutionary approach, 9 <sup>th</sup> Edition Wiley Blackwell 2016	3								
2.									
3.									
4.									
Required Additional Supplies and Materials (software, hardware, tools, specialized clothing, etc.)									
Laboratory and field notebook.									
Typical Evaluation Methods and Weighting									
Final exam: 15% Lab assignments: 20% Midterm exams: 25% Blogs: 10%									
Quizzes/tests: % Lab work: % Field experience: 20% Shop work: %									
Presentation: 5% Participation 5% Total: 100%									

# Details (if necessary):

## **Typical Course Content and Topics**

# When offered as a lecture course with field and laboratory components:

- The History of Biogeography
- Patterns and Distribution 2.
- 3. Communities and Ecosystems
- 4. Patterns of Biodiversity
- 5. Plate Tectonics
- Evolution, the Source of Novelty
- 7. Life, Death and Evolution on Islands
- 8. From Evolution to Patterns of Life
- Patterns in the Past
- 10. Setting the Scene for Today
- 11. Ice and Change
- 12. The Human Intrusion
- 13. Conservation of Biogeography

Each course offering includes a minimum of eight laboratory/field activities. Examples of such activities include a field assessment of wetland sediments as archives of past environmental change, and opportunities to process field-collected samples to identify microfossils (e.g., pollen, diatoms, and testate amoebae). Computer-assisted exercises provide practice with quantitative methods. Blackboard Learn is used to organize course material, discuss course topics, complete fossil-identification exercises, and write exams.