



GEOG-101 – Introduction to Physical Geography 1

University Arts and Science

Effective Term & Year: Fall 2022

Course Outline Review Date: 2026-04-01

Program Area: Math and Sciences

Description:

This course examines the concepts and processes of physical geography that govern the function of the atmosphere, lithosphere, hydrosphere, and biosphere using an earth-systems approach. Course lectures and lab topics introduce the sciences of cartography, meteorology, climatology, geomorphology, hydrology, biogeography, and soils. A focus on how human activities impact the environment, such as climate change and other real world issues will also be addressed.

Program Information:

This course is intended for University Studies and Business Management diploma and degree students. It can also be used as an elective for BMGT diplomas and the Bachelor in Business Administration (Sustainable Business Practices) degree.

Delivery Methods: On-campus (Face-to-Face)

Credit Type: College of the Rockies Credits

Credits: 3

Course type/s: Sciences, Lab Sciences

Instructional Activity and Hours:

Activity	Hours
Classroom, Directed Studies or Online Instruction	45
Seminar/Tutorials	

Laboratory/Studio	45
Practicum/Field Experience	
Co-op/Work Experience	
Other	
Total	90

Course Requisites:

None

Flexible Assessment: Yes

In some cases students may be able to apply for recognition of prior learning outside the classroom. This flexible assessment process provides equivalent course credit. It is a rigorous process that may include external evaluation, worksite assessment, demonstration, standardized test, self-assessment, interview, products/portfolio, and challenge exam, or other measures as appropriate. Tuition fees apply. Contact an education advisor for more information.

Course Transfer Credit:

For information about receiving transfer credit for courses taken at either British Columbia or Alberta institutions, please see <https://www.bctransferguide.ca/> or <https://transferalberta.alberta.ca> . For more transfer credit information, please visit <https://www.cotr.bc.ca/Transfer>

All requests for course transfer credit from institutions in British Columbia or elsewhere should go to the College of the Rockies Enrolment Services office.

Textbook Resources:

Textbook selection varies by instructor and may change from year to year. At the Course Outline Effective Date the following textbooks were in use:

Gervais, B. 2019. Living Physical Geography. Freeman. 2nd edition.

Laboratory Manual for Introduction to Physical Geography, First British Columbia Edition by Stuart MacKinnon, Katie Burles, Terence Day, Fes de Scally, Nina Hewitt, Crystal Huscroft, Gillian Krezoski, Allison Lutz, Craig Nichol, Andrew Perkins, Todd Redding, Ian Saunders, Leonard Tang, and Chani Welch is licensed under a Creative Commons Attribution-

NonCommercial-ShareAlike 4.0 International License, except where otherwise noted.

Please see the instructor's syllabus or check COTR's online text calculator <https://textbook.cotr.bc.ca/> for a complete list of the currently required textbooks.

Learning Outcomes:

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

- Explain physical geography processes and concepts in all four major spheres of the Earth using an earth-systems approach;
 - Demonstrate foundational knowledge in physical geography in preparation for upper level and advanced topics in Geography and other subjects;
 - Evaluate the impact of human activities on the physical environment and how physical geography can be applied to address real world issues;
 - Describe the significance of temporal and spatial scales to scientific research in physical geography;
 - Apply the scientific method to explain natural processes shaping the physical environment; and
 - Demonstrate competence in:
 - basic geographical skills including: the interpretation of topographic maps and airphotos; the construction of topographic cross-sections; using Google Earth to observe geographical features; and use of basic meteorological and hydrological instrumentation
 - scientific research and data analysis including: the construction and reading of graphs; the visual and mathematical analysis of topographic maps; collection, presentation and analysis of environmental data to describe physical geographic phenomena;
 - communicating science including: written, numeric, graphic, and oral methods; and
 - working collaboratively with other students and teams
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Course Topics:

- Introduction to physical geography, systems, and scientific method
 - Mapping of Earth's systems
- The Atmosphere
 - Structure and composition of the atmosphere
 - Global radiation and energy balance
 - Atmospheric and oceanic circulation patterns
 - Global temperatures
- Weather, water, and climate
 - Weather systems

- Hydrologic cycle
- Water resources
- Climate systems
- The Earth-Atmosphere Interface
 - Crustal and tectonic processes
 - Earthquakes and volcanoes
 - Weathering, erosion and mass movement
 - Fluvial, Karst, Aeolian, Glacial, and Coastal processes and landforms
- Soils and the Biosphere
 - Soil formation, classification, and distribution
 - Biogeography and ecosystems
 - Biogeoclimatology of British Columbia

See instructor's syllabus for the detailed outline of weekly readings, activities and assignments.

Evaluation and Assessments

Assessment Type: On-Campus (face-to-face)

Assessment Type	% of Total Grade
Lab	
Lab Assignments	40%
Class	
Weekly Reading Reviews	10%
Quizzes	30%
Final Exam	20%
Total	100%

Grade Scheme

A+	A	A-	B+	B	B-	C+	C	C-	D	F
>=90	89-85	84-80	79-76	75-72	71-68	67-64	63-60	59-55	54-50	<50

Pass requirements: A passing average (50% or higher) in both the theory and practical components.

Evaluation Notes: A grade of "D" grants credit, but may not be sufficient as a prerequisite for sequential courses.

Exam Attendance:

Students must attend all scheduled exams at the appointed time and place. Instructors may approve an alternate exam to accommodate an illness or personal crisis. Department heads will consider other written requests. Any student who misses a scheduled exam without prior

approval will receive a “0” on the exam.

Academic Policies:

College of the Rockies policies related to courses can be found at <https://cotr.bc.ca/about-us/college-policies/> and include the following:

- Policy 2.4.3 Students with Documented Disabilities
 - Policy 2.4.4 Student Conduct (plagiarism, other cheating, behavioral misconduct)
 - Policy 2.5.8 Academic Performance
 - Policy 2.5.3 Grade Appeal
 - Policy 2.4.9 Student Concerns Re Faculty
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Course Changes:

The College of the Rockies updates course outlines regularly to meet changing educational, employment and marketing needs. The instructor will notify students in writing of any updates to this outline during the semester. The instructor reserves the right to revise, add or delete material while meeting the learning outcomes of this course outline.