

Last Revised: February 2022

COURSE INFORMATION

Course Title: Introduction to Earth Science

Course Number: GEOG 102

Credits: 3

Total Weeks: 14 (Fall, Spring)
12 (Summer)

Total Hours: 52

Course Level: First Year Second Year
 New Revised Course
 Replacement Course

Department: Social Sciences

Department Head: A. McDougall

Former Course Code(s) and Number(s) (if applicable): N/A

Pre-requisites (If there are no prerequisites, type NONE): NONE

Co-requisite Statement (List if applicable or type NONE): NONE

Precluded Courses: N/A

COURSE DESCRIPTION

Have you ever wondered why some regions experience many earthquakes while other regions experience frequent flooding? This course offers an introduction to physical geography and examines the powerful environmental forces and events that influence our daily lives, and in turn, the ways that humans are altering Earth’s systems. Some of the themes covered in this class include the following: volcanism, weathering, mass movement, fluvial systems, glacial systems, soils, and oceans. Lab work, an assignment, and a field trip are an integral part of the course.

LEARNING OUTCOMES

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

- Distinguish between endogenic and exogenic systems that shape the Earth and the driving forces behind them
- Diagram the rock cycle and describe the three groups of rocks
- Explain plate tectonics, volcanic landforms and earthquake fault mechanisms
- Define weathering and discuss the physical weathering processes and types of mass movements
- Explain the processes involved in fluvial systems
- Describe eolian erosion and transport of dust and sand and the resultant landforms
- Explain the dynamic nature of coastlines and the challenges to human settlement
- Understand the human impact on the Earth systems
- Describe the principal soil-forming factors and describe the physical properties used to classify soils
- Explain ecosystems, and discuss the factors affecting ecosystems

INSTRUCTION AND GRADING

Instructional (Contact) Hours:

Type	Duration
Lecture	26
Seminars/Tutorials	
Laboratory	26
Field Experience	
Other (<i>specify</i>):	
Total	52

Grading System: Letter Grades Percentage Pass/Fail Satisfactory/Unsatisfactory Other

Specify passing grade: 50%

Evaluation Activities and Weighting (total must equal 100%)

Assignments: 20% <i>1. Natural Hazards</i> <i>2. Field Trip (or)</i> <i>3. In-class Group Assignment</i>	Lab Work: 15%	Participation: % <i>Specify nature of participation:</i>	Project: <i>Specify nature of project:</i>
Quizzes/Test:	Midterm Exam: 20%	Final Exam: 20%	Lab Exam: 25%

TEXT(S) AND RESOURCE MATERIALS

Provide a full reference for each text and/or resource material and include whether required/not required.

Required: Christopherson, Robert W., Birkeland, Ginger H., Byrne, Mary-Louise, and Philip T. Giles (2016) Geosystems: Fourth Canadian Edition. Upper Saddle River, New Jersey: Pearson Education, Inc.

COURSE TOPICS

List topics and sequence covered.

Week	Topic
1	Essentials of Geography
2	The Dynamic Planet
3	The Dynamic Planet
4	Tectonics, Earthquakes
5	Volcanism
6	Weathering, Karst and Mass Movement
7	River Systems
8	Oceans, Coastal Systems
9	Wind Processes
10	Glacial Landscapes
11	Periglacial Landscapes
12	Geography of Soils

NOTES

1. Students are required to follow all College policies. Policies are available on the website at: [Coquitlam College Policies](#)
2. To find out how this course transfers, visit the BC Transfer Guide at: bctransferguide.ca