COQUITLAM COLLEGE
Established 1982

# COURSE OUTLINE

**Effective Semester:** Spring 2024

**Effective January 1, 2026:** This course is no longer offered.

## 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):** N/A

**Pre-requisites:** NONE

**Co-requisite Statement:** 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 (*specify):* | |
| Total | 52 |

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

**Specify passing grade:** 50%

**Evaluation Activities and Weighting**

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

## TEXT(S) AND RESOURCE MATERIALS

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. (Recommended)

## COURSE TOPICS

| 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

**Last Reviewed:** February 2024
**Last Revised:** February 2024