

CAPILANO UNIVERSITY COURSE OUTLINES		
TERM: FALL 2014	COURSE NO:	GEOGRAPHY 112
INSTRUCTOR:	COURSE NAME: INTRODUCTION TO EARTH ENVIRONMENTS	
OFFICE: LOCAL: E-MAIL:	SECTION NO(S):	CREDITS: 4

COURSE FORMAT:

Three instructional hours plus two lab hours, and an additional hour delivered through other activities, per week for a 15-week semester. This includes two weeks for final exams.

COURSE PREREQUISITES:

None.

COURSE OBJECTIVES:

General: This course is about the world around us. More specifically, it is about the **processes** associated with the continual evolution of the landscape we see every day. It is about mountains and the rocks they're made of; it's about streams and glaciers, the valleys they carve and the sediments they deposit; it's about waves and the beaches and cliffs they produce; and it's about gravity and its role in shaping slopes. It's about rapid, and often destructive, processes like volcanic eruptions and landslides, but it's also about slow, imperceptible processes that occur on time scales of tens of thousands, or even millions, of years.

Movements of Earth's massive crustal plates, and the incessant disintegration and decomposition of rocks, are too slow to be easily noticeable even at time scales much more than a human lifetime. All of these processes, the fast, the slow, the large scale and the small, work to either increase the relief of Earth's surface (tectonic processes) or to wear away at its relief (gradational processes). These **tectonic** and **gradational processes** are continually interacting to produce an exciting, ever changing, and endless variety, of **landforms**.

Through this course one should come to understand the origin, evolution, and distribution of landforms, and to appreciate the complex interactions of the processes involved in shaping the Earth's surface. But, along with our understanding and appreciation for all this, should come the realization that we too are becoming a significant force in shaping the Earth's surface and that the consequences of what we do are not always for the best.

This is a Geography course for several reasons. It is about a part of the Earth **system**: the physical landscape. We will consider **interrelationships** between the various parts of the Earth system, between the various processes shaping the physical landscape, and between the activities of humans and the physical landscape. We will also study the **spatial variability** of landforms. For much of this, we will rely on **maps** as tools.

Labs are an essential part of the course. The objective of these labs is to provide opportunities to *apply* the course content. For roughly the first half of the course, the labs focus on the skills required in the use of topographic maps. Later labs will focus on the use of these maps, and also some air photos, in the identification and interpretation of landforms. To be successful with the lab work, students are expected to be able to do basic arithmetic; this includes having a working knowledge of such concepts as percentages, ratios, and graphing techniques.

Course objectives – continued**Instructional:**

1. To be able to identify basic landforms.
2. To develop an understanding of the processes that create landforms.
3. To become aware of human impacts on the physical environment.
4. To be able to read and interpret topographic maps.
5. To be able to interpret landforms from maps and photographs.

REQUIRED TEXT:

Strahler, Alan, and O.W. Archibald. Physical Geography - Science and Systems of the Human Environment, 5th Canadian Ed. Mississauga, Ontario: John Wiley and Sons, Ltd., 2011.

Map Sheet: North Vancouver, 92 G/6

COURSE CONTENT:

All readings are from the textbook.

Students are expected to read the assigned readings *before* class.

It is strongly recommended that students make use of the **Chapter Summaries** and do the suggested **Review Questions** at the end of each chapter.

Week 1

Introduction

Read: Chapter 5, pp. 5 - 17

Review Questions (p. 17): 1, 6, 10, 11

Week 2

Topographic Maps

Read: Chapter 2, pp. 20 - 22

Review Questions (p. 34): 3, 4

Read: Working It Out, pp. 34 - 35

Read: Appendix 2.1, pp. 36 - 39

Minerals and Rocks

Read: Chapter 11, pp. 259 - 277

Review Questions (p. 277): omit 6 and 10

Week 3

Minerals and Rocks, cont.**Structure of the Earth and Plate Tectonics**

Read: Chapter 12, pp. 279 - 299

Review Questions (p. 299): omit 3

Week 4

Structure of the Earth and Plate Tectonics, cont.

Week 5

Volcanoes

Read: Chapter 13, pp. 303 - 314

Review Questions (p. 323): 1 - 6

QUIZ (TWO PARTS)

Week 6

Weathering

Read: Chapter 14, pp. 334 - 342

(Also, refer back to Chapter 11, pp. 265 - 267.)

Review Questions (p. 347): 8 - 12

Course content – continued

Week 7

Soils

Read: Chapter 19, pp. 461 - 463, pp. 472 - 481
 Review Questions (p. 487): 1, 8 - 10, 13 - 19

Mass Wasting

Read: Chapter 14, pp. 342 - 346
 Review Questions (p. 347): 13 - 16

Week 8

Running Water - Processes and Landforms

Read: Chapter 15, pp. 351 - 367
 Review Questions (p. 375): 1, 4 - 7
 Read: Chapter 16, pp. 379 - 399
 Review Questions (p. 399): 4 - 13
 Read: Working It Out, pp. 400 - 401

MIDTERM EXAM

Week 9

Running Water - Processes and Landforms, cont.

Week 10

Glacial Processes and Landforms

Read: Chapter 18, pp. 431 - 448
 Review Questions (p. 457): 1 - 8

Week 11

Glacial Processes and Landforms, cont.

Week 12

Coastal Processes and Landforms

Read: Chapter 17, pp. 411 - 416, 420 - 423
 Review Questions (p. 424): 6 - 9, 11 - 14
 Read: Appendix 17.1, pp. 425 - 429
 Questions (p. 429): 1 - 5

Week 13

Coastal Processes and Landforms, cont.**LAB EXAM**

Week 14/15

FINAL EXAM PERIOD**EVALUATION PROFILE:**

Quiz (Lecture and Lab).....	15%
Term Project	10%
Fourth Hour Assignments.....	5%
Lab Exam.....	20%
Midterm Exam.....	25%
Final Exam.....	<u>25%</u>
	100%

The lab portion of the course includes the lab portion of the quiz, labs handed in for marks, and the lab exam. A passing grade (50% or more) is required on the lab portion of the course for the student to obtain a passing grade for the entire course.

GRADING PROFILE:

A+ = 90 - 100%	B+ = 77 - 79%	C+ = 67 - 69%	D = 50 - 59%
A = 85 - 89	B = 73 - 76	C = 63 - 66	F = 0 - 49
A- = 80 - 84	B- = 70 - 72	C- = 60 - 62	

OPERATIONAL DETAILS:

Capilano University has policies on Academic Appeals (including appeal of final grades), Student Conduct, Cheating and Plagiarism, Academic Probation and other educational issues. These and other policies are available on the University website.

Office Hours:

Fourth Hour: These activities will be described in the first week of term and will be assigned throughout the term.

Materials needed for class:

- . pencil
- . eraser
- . a few coloured pencils
- . 12"/30 cm ruler
- . calculator

Attendance: Regular attendance is highly recommended.

Responsibility for Material covered during a missed class:

When students are absent from class, they are still responsible for the material covered during their absence, including announcements, assigned readings, hand-outs and labs. Some of the lab assignments will require the use of equipment, which will not be available outside the scheduled lab hours.

Late Assignments:

For every day that an assignment is late, 10% of the total possible points will be deducted.

Missed exams:

Students who are unable to write the exams must have an acceptable excuse and are expected to contact the instructor before the exam. The exam must be completed as soon as possible after returning to class.

Study Time: **Because this course has a two-hour lab component, the amount of required study time will be greater than a regular three-credit course. Additional study time may be also required if a student's background in math and science needs to be reviewed or upgraded. Help is available through the Math Learning Centre (BR289).**

Incomplete Grades:

Grades of Incomplete "I" will be granted only if there is a valid reason for extending the evaluation deadline and if the student has a reasonable chance of improving their grade to pass the course.

English Usage: All written work submitted must use good academic English and follow the guidelines provided in the "*Capilano University Guide to Writing Assignments*" (available from the University Bookstore).

Operational details – continued

Cheating/ Plagiarism:

Plagiarism is the presentation of another person's work or ideas as if they were one's own. Plagiarism is both dishonest and a rejection of the principles of scholarship. Information about how to avoid plagiarism by proper documentation of sources is available from the Library and the Writing Centre. All students should familiarize themselves with the *University Policy on Cheating and Plagiarism* (See the *University Website*) as such behavior can result in suspension from the University.

Electronic Devices:

During all classes, turn off cell phones and remove them from the desk. No personal electronic devices (cell phones, calculators, electronic dictionaries, etc.) may be used during an examination without prior approval from the instructor.

Emergency Procedures:

Please read the emergency procedures posted on the wall of the classroom.