

COURSE IMPLEMENTATION DATE: May 1994  
 COURSE REVISED IMPLEMENTATION DATE: September 2005  
 COURSE TO BE REVIEWED: September 2009  
 (Four years after implementation date) (MONTH YEAR)

**OFFICIAL COURSE OUTLINE INFORMATION**

Students are advised to keep course outlines in personal files for future use.  
 Shaded headings are subject to change at the discretion of the department and the material will vary - see course syllabus available from instructor

FACULTY/DEPARTMENT:	Geography	
<b>GEOG 202</b>	N/A	4
COURSE NAME/NUMBER	FORMER COURSE NUMBER	UCFV CREDITS
<b>INTRODUCTION TO GEOMORPHOLOGY</b>		
COURSE DESCRIPTIVE TITLE		

**CALENDAR DESCRIPTION:**

GEOG 202 builds on many topics introduced in GEOG 102 with emphasis placed on drainage basins, groundwater, mass movements, and glacial geomorphology. A weekend field trip and local in-class trips will develop skills in landform analysis and an understanding of the geomorphology of southwestern British Columbia.

PREREQUISITES: **GEOG 102**  
 COREQUISITES: **None**

SYNONYMOUS COURSE(S)	<b>SERVICE COURSE TO:</b>
(a) Replaces: _____ (Course #)	N/A
(b) Cannot take: _____ for further credit. (Course #)	(Department/Program) N/A (Department/Program)

TOTAL HOURS PER TERM:	<b>75</b>	TRAINING DAY-BASED INSTRUCTION
<b>STRUCTURE OF HOURS:</b>		LENGTH OF COURSE: _____
Lectures: <b>39</b> Hrs		HOURS PER DAY: _____
Seminar: _____ Hrs		
Laboratory: <b>20</b> Hrs		
Field Experience: <b>16</b> Hrs		
Student Directed Learning: _____ Hrs		
Other (Specify): _____ Hrs		

MAXIMUM ENROLLMENT:	<b>25</b>
EXPECTED FREQUENCY OF COURSE OFFERINGS:	<b>Twice a year</b>
<b>WILL TRANSFER CREDIT BE REQUESTED? (lower-level courses only)</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>WILL TRANSFER CREDIT BE REQUESTED? (upper-level requested by department)</b>	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
<b>TRANSFER CREDIT EXISTS IN BCCAT TRANSFER GUIDE:</b>	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

**AUTHORIZATION SIGNATURES:**

Course Designer(s): \_\_\_\_\_ Chairperson: \_\_\_\_\_  
 Dr. Sandy Vanderburgh Raymond Welch (*Curriculum Committee*)

Department Head: \_\_\_\_\_ Dean: \_\_\_\_\_  
 Dr. Sandy Vanderburgh Dr. Virginia B. Cooke

PAC Approval in Principle Date: \_\_\_\_\_ PAC Final Approval Date: October 29, 2004

**LEARNING OBJECTIVES / GOALS / OUTCOMES / LEARNING OUTCOMES:**

Students are introduced to the concepts of geomorphology necessary for understanding the physical geography of British Columbia. Particular emphasis is placed on the diverse natural landscapes of the Fraser Valley and Lower Mainland and on developing practical field skills for the identification and analysis of landforms. Upon successful completion of this course students will be able to demonstrate an understanding of basic drainage basin principles, groundwater geology, mass movements, and glacial geomorphology. Students will also be able to apply lecture concepts to field problems and examples.

**METHODS:**

Instructional methods include lectures, laboratory sessions and assignments, assigned readings, out-of-class projects, and field trips. The lecture topics will emphasize conceptual and theoretical issues that are supplemented by the use of audio visual aids and related field experience.

**PRIOR LEARNING ASSESSMENT RECOGNITION (PLAR):**

Credit can be awarded for this course through PLAR (Please check:)     Yes                       No

**METHODS OF OBTAINING PLAR:**

Challenge Exam and/or portfolio Assessment

**TEXTBOOKS, REFERENCES, MATERIALS:**

[Textbook selection varies by instructor. An example of texts for this course might be:]

Trenhaile, A. S. 2004. Geomorphology: A Canadian Perspective. 2nd Edition. Oxford Univeristy Press, Canada.

**SUPPLIES / MATERIALS:**

The course has a field trip fee for transportation and accomodation costs.

**STUDENT EVALUATION:**

[An example of student evaluation for this course might be:]

Field Trip Report	20%
Laboratory Exercises	20%
Research Paper Assignment	10%
Midterm Examination	25%
Final Examination	25%

## **COURSE CONTENT:**

[Course content varies by instructor. An example of course content might be:]

Lecture Topics may include:

1. Nature and scope of geomorphology
2. Brief history of geomorphology
3. Review of geology (plate tectonics, rock types, and structural geology)
4. Geology and geomorphology of southwestern British Columbia
5. Rocks and weathering
6. Drainage Basin Analysis, Flood Forecasting
7. Fundamentals of soil mechanics
8. Mass movement processes
9. Introduction to groundwater geology and groundwater issues in SWBC
10. Glacial processes, mass budget and flow behaviour, glacial landforms, effects of Pleistocene Glaciations in North America
11. Geochronology

Laboratory Sessions and Assignments May Include (8-10 assignments per semester):

1. Review of Map and Aerial Photograph Interpretation Techniques
2. Statistical Analysis of Geomorphic Data
3. Structural Geology and Mapping
4. Sediment Analysis
5. Drainage Basin Analysis and Mapping
6. Flood Frequency Analysis
7. Section Logging
8. Groundwater Conditions and Flow Rates
9. Mass Movements
10. Glacial Geomorphology I - Map and Aerial Photograph Interpretation and Analysis
11. Glacial Geomorphology II- Basal Shear Stress and Glacial Flow Processes

Note: All laboratory sessions and assignments are mandatory and are designed to support lecture topics.

Field Trip

Cache Creek: a two-day trip through the Fraser Valley and Fraser Canyon. The trip will introduce students to a variety of geomorphic environments with particular emphasis on mass movements and the impact of mass movements on transportation corridors.