



COURSE OUTLINE

GEOL102

Geomorphology

3 CREDITS

PREPARED BY: Mary Samolczyk, Instructor

DATE: August 01, 2017

APPROVED BY: Margaret Dumkee, Dean

DATE:

APPROVED BY ACADEMIC COUNCIL:



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GEOMORPHOLOGY

INSTRUCTOR: Mary Samolczyk	OFFICE HOURS: By Appointment
OFFICE LOCATION: CNIM M105	CLASSROOM: CNIM M111
E-MAIL: msamolczyk@yukoncollege.yk.ca	TIME: M/W 10:30 AM - 12:00 PM (lect) T 1:00 - 4:00 PM (lab)
TELEPHONE: (867) 456-6958	DATES: Sept. 6 - Dec. 7, 2017

COURSE DESCRIPTION

Geology 102 addresses surface and near-surface geological processes and deposits, and their implications for land use and present, past, and future landscape development. Students are introduced to a wide range of introductory geomorphology topics such as weathering, glacial and fluvial processes and landforms, mass wasting, and tectonic controls on landforms. Topical issues in geomorphology in the Yukon and northern Canada are discussed in detail, including (1) the impact of climate change on periglacial environments and human infrastructure, and (2) the relationship between glaciofluvial systems and the placer mining industry. Laboratory instruction includes soil classification, surficial deposit identification, map and air photo literacy, and hydrological monitoring.

PREREQUISITES

Admission to the Geological Technology, Science, or Northern Science programs; and/or permission from the instructor

EQUIVALENCY OR TRANSFERABILITY

This course is transferrable with UBC EOSC 1st, UBCO GEOG 109, UNBC GEOG 210, VIU GEOL 1st. To learn more about transferability, visit: www.bctransferguide.ca.

LEARNING OUTCOMES

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

- Analyse the role of active and ancient Earth surface processes in landform evolution, including weathering and soil formation.
- Apply the basic concept of a balance between driving and resisting forces shaping landforms.
- Evaluate the geomorphic and climatic significance of anthropogenic activities.
- Identify a variety of landforms on the ground and using topographic maps, aerial photographs, and satellite imagery.
- Analyse the relationships between precipitation, surface water and groundwater systems.
- Understand surficial geology processes unique to northern latitudes and the implications of changing environmental conditions.

COURSE FORMAT:

This course consists of two 90-minute lectures and one three-hour lab period per week. The schedule included in this course outline details the major topics covered throughout lecture. Labs are complimentary to lecture material. Labs and lectures will be conducted in classroom, computer lab, and field settings.

ASSESSMENTS

Attendance & Participation

Students are strongly encouraged to attend all lectures and laboratory exercises. Lab exercises can be completed only during lab periods and materials may not be available

outside these hours. Off-campus field exercises must be completed during the allocated time with the instructor present.

Assignments

Weekly lab exercises will be due at the start of the following lab section. All lab exercises will require a write-up from the student, with length appropriate to the exercise completed. Lab assignments are typically due at the start of each subsequent lab exercise and deadlines for each lab write-up are announced at the start of each lab exercise. Three writing assignments will be due over the course of the term and will focus on current research and literature in geomorphology.

Tests

There will be three exams in this course: a midterm lecture exam, a final lab exam and a final lecture exam. Students must pass the lecture final exam to achieve an overall passing grade.

Any student who is absent from a test or exam for legitimate reasons will be eligible to write a deferred exam. For missed midterm tests, the student must contact the instructor within 48 hours of the missed test by phone or email. For missed final exams, students must contact the Chair of the School of Science. Any deferred exams will be scheduled by the Chair.

EVALUATION

<i>Tests and Assignments</i>	<i>Weight</i>	<i>Dates</i>
Weekly Lab Assignments	35%	Due at the start of each subsequent lab exercise.
Midterm Test*	15% (or 5%)	During lecture class time.
Final Lab Exam	15%	During scheduled lab time in the final week of classes.
Final Lecture Exam*	20% (or 30%)	During exam period, as scheduled by registrar.
Writing Assignments (3)	15% (5% each)	Completed outside of class time.
Total	100%	

* The test weighting scheme that is most advantageous to the student's final grade

will be chosen.

REQUIRED TEXTBOOKS AND MATERIALS

Bierman, PR., and Montgomery, DR. 2014. Key Concepts in Geomorphology. New York (NY): W.H. Freeman and Company. 494 p.

ACADEMIC AND STUDENT CONDUCT

Information on academic standing and student rights and responsibilities can be found in the current Academic Regulations that are posted on the Student Services/ Admissions & Registration web page (http://www.yukoncollege.yk.ca//downloads/Acad_Regs_FINAL_March_2017.pdf).

PLAGIARISM

Plagiarism is a serious academic offence. Plagiarism occurs when students present the words of someone else as their own. Plagiarism can be the deliberate use of a whole piece of another person's writing, but more frequently it occurs when students fail to acknowledge and document sources from which they have taken material. Whenever the words, research or ideas of others are directly quoted or paraphrased, they must be documented according to an accepted manuscript style (e.g., APA, CSE, MLA, etc.). Resubmitting a paper which has previously received credit is also considered plagiarism. Students who plagiarize material for assignments will receive a mark of zero (F) on the assignment and may fail the course. Plagiarism may also result in dismissal from a program of study or the College.

YUKON FIRST NATIONS CORE COMPETENCY

Yukon College recognizes that a greater understanding and awareness of Yukon First Nations history, culture and journey towards self-determination will help to build positive relationships among all Yukon citizens. As a result, to graduate from ANY Yukon College program, you will be required to achieve core competency in knowledge of Yukon First Nations. For details, please see www.yukoncollege.yk.ca/yfnccr.

ACADEMIC ACCOMMODATION

Reasonable accommodations are available for students requiring an academic accommodation to fully participate in this class. These accommodations are available for students with a documented disability, chronic condition or any other grounds specified in section 8.0 of the Yukon College Academic Regulations (available on the Yukon College website). It is the student's responsibility to seek these accommodations. If a student requires an academic accommodation, he/she should contact the Learning Assistance Centre (LAC) at (800) 661-0504 (College Reception) or lassist@yukoncollege.yk.ca.

TENTATIVE SCHEDULE AND TOPIC OUTLINE

Lecture #	Date	Topic
1	06/09/17	Introduction to GEOL 102
2	11/09/17	Definitions and unifying concepts
3	13/09/17	Weathering and Soils
4	18/09/17	Weathering and Soils
5	20/09/17	Weathering and Soils
6	25/09/17	Geomorphic hydrology, channels and drainage basins
7	27/09/17	Geomorphic hydrology, channels and drainage basins
8	02/10/17	Geomorphic hydrology, channels and drainage basins
9	04/10/17	Glacial processes and landforms ***** 1 st lecture assignment due *****
THANKSGIVING	09/10/17	No lecture
10	11/10/17	Glacial processes and landforms
11	16/10/17	Periglacial processes and landforms
12	28/10/17	Periglacial processes and landforms
MIDTERM	23/10/17	No lecture
13	25/10/17	Hillslope processes
14	30/11/17	Hillslope processes
15	01/11/17	Aeolian processes and landforms ***** 2 nd lecture assignment due *****
16	06/11/17	Aeolian processes and landforms
17	08/11/17	Coastal and submarine geomorphology
REMEMBRANCE DAY	13/11/17	No lecture
18	15/11/17	Coastal and submarine geomorphology
19	20/11/17	Tectonic geomorphology
20	22/11/17	Geomorphology and climate change
21	27/11/17	Geomorphology and climate change
22	29/11/17	Dating methods, historical records and rates of geomorphic processes
23	04/11/17	Dating methods, historical records and rates of geomorphic processes ***** 3 rd lecture assignment due *****
24	06/11/17	Placer geology (guest speaker)
25	07/11/17	Final exam review period