

The University of British Columbia
Department of Geography
GEOB 103 (section 101)
Our Changing Environment: Water and Landscapes
Session: Fall 2013

Course Website: www.connect.ubc.ca
Lecture Time: Monday, Wednesday, Friday 10-11am
Room: Auditorium 200, 6344 Memorial Road

Instructor: Piotr Cienciala
Email: piotr.cienciala@geog.ubc.ca
Office: Geography Bldg. room 108-109, 1984 West Mall
Office Hours: Wednesday, 11am-12pm

COURSE MATERIALS (available in UBC Bookstore)

Textbook:

Smith, Pun and Kluge, 2012. How Earth Works (Custom Edition for UBC), Pearson. **PLEASE NOTE: this course package is MANDATORY, and contains material for the laboratory assignments.*

Online Resources:

www.pearsoncustom.com/can/ubc_mgp

i>clickers:

To encourage and enable active student participation in lectures we will use a classroom response system called i>clicker. In short, i>clickers are devices that allow you to respond to questions posed by the instructor. If you would like to know more about i>clickers, please refer to the following links:

<http://bookstore.ubc.ca/books/course-materials-students/faqs/students-iclicker>

and:

http://wiki.ubc.ca/Documentation:Clickers/Information_for_Students

COURSE DESCRIPTION

Course Overview:

In this course you will explore a range of introductory topics within the scientific disciplines of geology, hydrology, and geomorphology. *Geology* is the study of the Earth, its

composition, structure, physical properties, history, and the processes that shape it. *Hydrology* is the study of the movement and distribution of water throughout the Earth, and addresses both the hydrologic cycle and water resources. *Geomorphology* is the study of landforms and the processes that shape them. These three disciplines are closely linked and, together, encompass many of the natural processes that sustain and strongly affect Earth's ecosystems and human societies. Importantly, these processes define many of the natural resources upon which modern societies are built (such as water, soils, ore minerals, gas and oil) and may create hazards that impact human communities around the world (earthquakes, volcanoes, floods, droughts, and landslides). Therefore, topics in this course are relevant not only to students who are interested in the Earth and Environmental sciences, but also those who wish to understand the natural processes that underlie many human, social, and economic aspects of our environment and natural resources. To explore the linkages between different Earth surface processes (geological, hydrological, and geomorphic) as well as between these processes and their socio-ecological context, we will apply systems thinking, an approach which focuses on interconnections between things and how they influence one another.

Course Objectives:

COURSE CONTENT: The main goal of this course is to introduce you to major concepts and terminology necessary to observe, interpret, and understand the landscape around you and to situate these ideas in the context of environment-society interactions. By the end of this course you will be able to: (1) describe and explain fundamental concepts associated with Earth surface processes using specialized terminology; (2) explain how different Earth surface processes are linked with one another; (3) explain how Earth surface processes affect ecosystems and human societies and how human activities alter these processes; and (4) identify/classify, describe, and interpret specific landforms and landscapes to infer the associated processes.

TRANSFERRABLE SKILLS: In addition to acquiring knowledge and understanding of the course content, you will have a chance to develop several important intellectual skills. You can take advantage of these transferrable skills in the future, no matter which academic program and career path you choose to follow. Among the most important of them will be the ability to: (1) integrate newly learned information into a well-organized, broader knowledge framework; (2) analyze evidence and formulate well-supported arguments; (3) monitor your progress and independently manage your projects; and (4) collaborate in groups and communicate effectively with your peers.

Course Structure:

The course components include: LECTURES, in which student PARTICIPATION is expected and evaluated, REQUIRED READINGS, LABORATORY ASSIGNMENTS, and two EXAMINATIONS.

LECTURE material will closely follow that included in the course package (textbook) and will be posted on the course website (UBC Connect) by 9am on the day of the lecture.

Except for Week 1, students will be expected to read relevant sections of textbook (see REQUIRED READINGS) ahead of the lecture and use i>clickers in class to PARTICIPATE in discussions and answer questions posed by the instructor. Credit will be given for answering each of the questions and, in some cases, extra marks will be assigned for correct answers.

REQUIRED READINGS: (textbook chapters) provide detailed description of material for lectures and include background knowledge necessary for their interactive component: i>clicker discussions and questions. The required readings for each week are listed on the lecture schedule below.

LABORATORY ASSIGNMENTS: there will be 9 lab assignments during the term, 8 of which will be graded. Students will be expected to achieve average grade of at least 50% in order to pass the course. The material for the assignments is a part of the required course package (see the last section of the textbook). Students are permitted and encouraged to collaborate on the assignments however, writing must be done independently – identically worded assignments are not acceptable and may be considered as a case of plagiarism (see Academic Misconduct). Students can also seek help on the assignments from the Teaching Assistants, who will hold lab assistance sessions throughout the term. A schedule of the “Lab Assistance Sessions” (LAS) will be posted on the course website during the first week of class.

MIDTERM EXAMINATION: will take place on Monday, October 21, 2013 and will cover material from lectures, readings, and laboratory assignments.

FINAL EXAMINATION: will take place *during the regular examination period (December 4 – 18)*. PLEASE, DO NOT MAKE ANY TRAVEL OR EMPLOYMENT PLANS before the exam schedule has been finalized! All material from lectures, readings, and laboratory assignments will be examinable.

Course Evaluation:

Final grades will be determined as follows:

Participation (i>clickers)	5%
Laboratory Exercises (8)	25%
Midterm Examination	30%
Final Examination	40%
Total	100%

IMPORTANT COURSE POLICIES

Classroom Rules :

As a courtesy to the instructor, teaching assistants, and your peers, please, turn off your cell

phone during lectures and lab sessions. Please also note that lectures will take place in Auditorium 200, where CONSUMPTION OF FOOD AND DRINKS IS STRICTLY FORBIDDEN.

Communication with the Instructor:

IN PERSON: This is more efficient and therefore preferred way of communicating with students and I am happy to handle questions either during my office hours or immediately after lectures. During office hours students are welcome to drop in however, priority will be given to those who email in advance to make an appointment. Exception from this priority rule will be applied to important and/or urgent cases. If you are unable to take advantage of the scheduled office hours please email me and, other commitments permitting, I may be able to meet outside of the times specified above.

EMAIL: I will respond to all emails I receive and will make every effort to do that within 48 hours. If you did not get a response, this means that most likely I did not receive your message – please do follow up with me to double check. Beginning your email's subject line with the course name ("Geob 103") helps to make sure that the message will reach me. In addition, to assure that the message passes through email filters I encourage you to use your UBC email accounts. PLEASE NOTE that, given the number of students enrolled in the course, I expect to receive large volume of messages and at times may not be able to provide detailed answers to your question over email. Therefore, I suggest that, whenever possible, you should use this way of communicating primarily for short and specific questions. Questions that require long and/or complex answers are best dealt with in person.

Late Assignments:

Late assignments may be accepted ONLY IN EXCEPTIONAL CIRCUMSTANCES, on a case-by-case basis and based on supporting documentation (see Special Considerations). If you need to be away from campus on the posted due date, please arrange to submit the assignment via email to one of the Teaching Assistants on the due date. Please, discuss such arrangements prior to leaving campus, preferably in person during the TA office hours ("Lab Assistance Session").

Missed Examinations:

Alternate final examinations will be arranged for those with exam hardships or exam conflicts, as defined in the UBC regulations. PLEASE NOTE that in this case, the instructor must be made aware of the exam hardship no less than one month prior to the scheduled final examination.

Academic Misconduct:

Suspected incidents of academic misconduct (cheating, plagiarism, submission of false records or information, impersonating a candidate at an examination, etc.) will be referred

to the Head of the Geography Department, who will decide if the matter warrants further action.

UBC Academic Calendar 2013/2014 states that: "Disciplinary measures which may be imposed, singly or in combination, for academic misconduct include, but are not limited to the following: (1) a letter of reprimand; (2) a failing grade or mark of zero on the assignment or in the course in which the academic misconduct occurred; (3) suspension, cancellation, or forfeiture of any scholarships, bursaries or prizes; (4) suspension from the University for a specified period of time; (5) expulsion from the University; (5) denial of admission or re-admission to the University for a specified or indefinite period of time; (6) a notation of academic discipline on the student's record in the Student Information System, which will appear on the student's Transcript of Academic Record; (7) revocation of a degree or other academic credentials dishonestly or improperly obtained."

PLEASE NOTE that UBC regulations concerning academic honesty and standards may differ from those you may be familiar with from secondary school or other institutions! It is every Student's responsibility to familiarize themselves with UBC-specific regulations and definitions (please refer to UBC Academic Calendar 2013/2014). In doubt regarding academic honesty and standards, Students should consult with the course Instructor.

Special Considerations:

UBC Academic Calendar 2013/2014 states: "Students whose attendance or academic performance is severely affected by medical, emotional, or other extenuating circumstances should apply for special consideration from their instructor or Arts Academic Advising as soon as possible. Students are advised to contact instructors if unable to complete exams or other graded work because of short-term illness or for other reasons, and arrange to make up missed work according to written guidelines given at the start of the course. See Grading Practices. Students also have the right to request Academic Concession from Arts Academic Advising.

Students absent from final examinations held during any of the official examination periods must request Academic Concession from Arts Academic Advising. Students must report their absence and apply for an academic concession as soon as possible after the missed examination(s). Students requesting Academic Concession will be required to complete an application form and provide supporting documentation as requested. In some cases it will be necessary for the student to attend an interview. Academic Concessions are granted only by the senior staff of Arts Academic Advising, and are a privilege; not a right." For more information, please refer to UBC Academic Calendar 2013/2014.

LECTURE AND LAB SCHEDULE

Dates	Weekly Lecture Topics & Lab Assignments	Required Reading
Sep 4 – 6	<u>Lectures:</u> Rocks and Rock Forming Processes <u>Lab:</u> Exploration 1: complete by Sep 6 but DO NOT HAND IN (not marked)!	Chapter 1
Sep 9 – 13	<u>Lectures:</u> Magma and Igneous Rocks <u>Lab:</u> Exploration 2: Topographic Maps	Chapter 2
Sep 16 – 20	<u>Lectures:</u> Sediment and Sedimentary Rocks <u>Lab:</u> Exploration 13: Volcanism	Chapter 3
Sep 23 – 27	<u>Lectures:</u> Deformation of Rocks <u>Lab:</u> Exploration 14: Lava Flows	Chapter 4
Sep 30 – Oct 4	<u>Lectures:</u> Global Tectonics: Plates and Plumes <u>Lab:</u> Exploration 11: Plate Tectonics I	Chapter 5
Oct 7 – 11	<u>Lectures:</u> Mass Movements: Landscapes in Motion <u>Lab:</u> Exploration 12: Plate Tectonics II	Chapter 6
Oct 14 – 18	<u>Lectures:</u> Streams: Flowing Waters Shapes the Landscape <i>No Lab Assignment</i>	Chapter 7
Oct 21 – 25	<u>Lectures:</u> Streams (continued) <i>No Lab Assignment</i> Midterm Examination on Monday, October 21	Chapter 7
Oct 28 – Nov 1	Water Flowing Underground <u>Lab:</u> Exploration 5: Landslides	Chapter 8
Nov 4 – 8	<u>Lectures:</u> Glaciers: Cold Climate Sculptors of Continents <u>Lab:</u> Exploration 3: Stream Dynamics	Chapter 9
Nov 11 – 15	<u>Lectures:</u> Shorelines: Changing Landscapes Where Land Meets Seas <u>Lab:</u> Exploration 8: Alpine Glaciation	Chapter 10
Nov 18 – 22	<u>Lectures:</u> Wind: A Global Geologic Process <i>No Lab Assignment</i>	Chapter 11
Nov 25 – 29	<u>Lectures:</u> Summary and Revision <i>No Lab Assignment</i>	No Reading