

FALL 2014- GRG 339 • Process Geomorphology

Instructor: Dr. Edgardo Latrubesse- Professor- CLA 3.418-
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Office hours: Thursday 8:15:00 AM-9:15:AM

Teaching Assistant: Charles Wight, MA Student, Department of Geography and the Environment, cwight@utexas.edu

Unique	Days	Time	Location	Instructor
37580	TTh	12:30 PM-02:00 PM	CLA1.402	Latrubesse

Class room: CLA 1.402

Course Description

This course examines the processes that shape the Earth landforms. We will consider the major components of geomorphology, including fluvial, glacial, periglacial, aeolian, slope, and weathering processes. Students will be exposed to fundamental concepts in geomorphology, as well as analytical skills for conducting geomorphic analysis. Particular attention is given to understanding the variability of geomorphic process and form to anthropogenic and climatic controls. A major goal of the course is for students to understand the practical value of possessing knowledge of geomorphology, especially for understanding environmental change.

Labs

There are laboratory assignments/exercises for each theme. We will review the material and the methods for each lab, and I will either make the data available, or indicate where it may be obtained. Each lab will involve basic data analysis, and a short write-up of the results. Students must work with a partner. Google Earth will be a main source for labs. Class will take place in CLA1.402. This facility contains several Workstation computers.

Term Paper

Graduate students will complete an in-depth (3,000 - 4,000 words) term paper on an approved topic. The paper is due Tuesday, December 2th. The paper must adhere to a journal format, and include appropriate references, tables, and figures. The paper should involve original research and data analysis, but not necessarily field work. Importantly, the paper must include an in-depth literature review and the identification of a specific problem in geomorphology. This may include thesis or dissertation topics if relevant to the course content. Discuss with me about the possible topics at the beginning of the semester.

Course management

Course materials and grade will be posted on Canvas. Students are required to consult this website frequently. Selected materials from different textbooks and pdf versions of power points presentations will be provided through Canvas.

Policies

a) Attendance

This course is intensive and relatively complex. This is due, primarily, to the amount of topics and material to be covered during the semester. You are required to attend all classes and arrive on time. It is, therefore, my philosophy that your success in this course will surely vary directly with your class attendance. Be aware of the fact that attendance will be taken on a daily basis and this information can be used in the computation of your final class grade (see Grading policy below). Do not routinely arrive 5 minutes late to class with the excuse that parking was a problem (the obvious solution is to routinely depart 5 minutes earlier).

Lateness: Late labs and papers will be assessed as part of your participation and commitment. Laptops are NOT allowed except with prior permission and in exceptional situations.

b) Academic Integrity

The core values of The University of Texas at Austin are learning, discovery, freedom, leadership, individual opportunity, and responsibility. Each member of the university is expected to uphold these values through integrity, honesty, trust, fairness, and respect toward peers and community. Each student in this course is expected to abide by the University of Texas Honor Code (see University guidelines on Academic Dishonesty (section 11-802)).

In this class, there is zero tolerance for students who violate university rules on scholastic dishonesty with all suspected cases turned over to the University's Dean of Students office. Penalties for scholastic include possibility of failure of course and dismissal from the University. Since dishonesty harms the individual, fellow students and the integrity of the University, policies on scholastic dishonesty will be STRICTLY ENFORCED in this class. Any work submitted by a student in this course for academic credit will be the student's own work. Using other person's work without appropriate citation is plagiarism.

Disabilities

The University of Texas at Austin provides upon request appropriate academic accommodations for qualified students with disabilities. Present the letter to the professor at the beginning of the semester so that needed accommodations can be discussed. The student should remind the professor of any testing accommodations no later than five business days before an exam. For more information, contact the Office of the Dean of Students at 471-6259, 471-4641. <http://www.utexas.edu/diversity/ddce/ssd/>.

Grading Policy

Undergrads: Grades will be assigned on the plus and minus scale (A-, B+ and so forth). We will apply 3 Exams 75% at total (25% each) and 15% for lab assignments, and 10% will be considered taking into consideration the level of participation in class and commitment of the student with the lab activities.

Graduate students: 3 Exams = 20% each, Labs=20%, term paper = 20%

The exams will be traditional tests including theoretical questions, exercises from the labs and interpretation of figures, maps or diagrams.

▶ Plus and minus grades will be used for final course grades.

Labs are mandatory.

▶ A specific calendar on labs and due dates is provided. Labs are due at 12:00 AM (at start of the class) on their scheduled due date. Do not turn in your lab late. Late labs will be not accepted by either, the professor or the TA. The lab will be considered incomplete and the score for that lab will be zero (0 points)

▶ ***The course final grade will be successively dropped half a letter for each two (2) unexcused absences of labs or field activities.***

Examination Absence Policy

If you miss any exam, and you have a valid written excuse, you will be given an opportunity to make up a similar exam but with different questions or approach that previously applied. In order to be allowed to makeup the exam you will need to present to Prof. Latrubesse a copy of a valid written excuse. If you miss more than one exam due to valid written excuses, you may be asked to take an incomplete and to complete the course requirements the following semester.

What is a valid written excuse?

- Doctor's note. This note should specifically say that you were unable to come to class because of a verified illness. It must be signed.
- Note from athletic department, music department, etc. asking for an excuse due to a university function. These notes need to be presented well before the exam.
- Military Service activation note.
- Trial or jury duty note.
- Religious holiday. Religious holiday conflicts must be brought to the attention of Prof. Latrubesse in advance. Please check the syllabus calendar to be sure that your religious holy days don't conflict with exams. If there is a conflict: please provide a written, signed request before the end of the second week of class.
- If you do not have a valid excuse, you will receive a zero for that exam.

► *All notes must be on letterhead, signed, include a contact name and phone number.*

Texts

Course readings will include the text, as well as readings and figures. Selected materials from different textbooks and pdf versions of power points presentations will be provided through Canvas. It is my philosophy that an experienced professor with a strong background on research does not necessarily follow and uses a textbook but contributes to student education transmitting his own experience to the students and discussing a variety of sources from the specialized literature. It is essential that you read prior to coming to class so that you may contribute to class discussions.

Recommended books (but not exclusive textbooks)

Huggett, R.2008. Fundamentals of Geomorphology. Routledge.

Ritter, D.F., Kochel, R.C., and Miller, J.R. 2002. Process Geomorphology, 4th ed., Waveland Press.

Summerfield, M, 1997. Global Geomorphology, Logman Ed.

UT POLICY ON EMAIL NOTIFICATION

Instructor to student email is a recognized and accepted form of official communication here at the University of Texas. For the University policy, read this. It is critically important that (1) you make sure to have your current and most frequently checked email address on file in UT Direct and (2) you check it on a daily basis. I will send class email frequently during the semester and you'll be given updates and notices in references to lectures as well as exams.

Religious Holidays

By UT Austin policy, students must notify the professor of a pending absence at least fourteen days prior to the date of observance of a religious holy day in special if it is coincident with the date of a test.

Office Hours

My office hours this semester are Thursday 8:15AM-09:15AM. You may also arrange to meet with me at another time by e-mailing me to set up an appointment.

Calendar for the semester (subject to change slightly)

Date	Type	Topic
Thu, Aug 28	Lecture 1	Introduction and Outline of Activities
Tue, Sep 2	Lecture 2	Geomorphology: Main Concepts
Thu, Sep 4	Lecture 3	Lecture 3 -
Tue, Sep 9	Lab Intro	Introduction to Labs – Google Earth and DEMs
Thu, Sep 11	Lecture 4	Global Tectonic Geomorphology
Tue, Sep 16	Lecture 5	Global Tectonics
Thu, Sep 18	Lab 1	Tectonics and Landform/Process Identification with Google Earth
Tue, Sep 23	Lecture 6	Weathering: concepts, physical and biological weathering
Thu, Sep 25	Lab 2	Lab 2: Tectonics
Tue, Sep 30	Lecture 7	Mass wasting- slope processes
Thu, Oct 2	Lab 3	Lab 3: Mass Wasting and Weathering
Tue, Oct 7	Test 1	Test 1 (Tectonic-Weathering-Mass Wasting)
Thu, Oct 9	Lecture 8	Fluvial processes- drainage networks
Tue, Oct 14	Lecture 9	Hydrology and hydraulics
Thu, Oct 16	Lab 4	Lab 4 - Drainage Basins Morphometry
Tue, Oct 21	Lab 5	Lab 5 - Hydrology- hydraulics
Thu, Oct 23	Lecture 10	Fluvial processes - Channel Patterns
Tue, Oct 28	Lecture 11	Fluvial Processes - Floodplains and terraces
Thu, Oct 30	Lab 6	Lab 6: Channel Patterns, Floodplains and Terraces
Tue, Nov 4	Review	Review
Thu, Nov 6	Test	Test 2 (Fluvial)
Tue, Nov 11	Lecture 12	Aeolian process introduction and erosional landforms
Thu, Nov 13	Lab 7	Geomorphic Mapping of Fluvial Systems
Tue, Nov 18	Lab 8	Aeolian Landforms and Processes
Thu, Nov 20	Lecture 13	Periglacial
Tue, Nov 25	Lecture 14	Glacial I
Thu, Nov 27		Thanksgiving Holiday!
Tue, Dec 2	Lecture 15	Glacial II
Thu, Dec 4	Test	Test 3 (Glacial-Periglacial-Aeolian processes)

LAB only Calendar Process Geomorphology – Fall 2014

TTh 12:30-2:00 pm in CLA 1.402

Date	Due Date	Topic
Tue, Sep 9	16-Sep	Introduction to Labs – Google Earth and DEMs
Thu, Sep 18	25-Sep	Tectonics and Landform/Process Identification with Google Earth
Thu, Sep 25	1-Oct	Lab 2: Tectonics
Thu, Oct 2	9-Oct	Lab 3: Mass Wasting and Weathering
Thu, Oct 16	23-Oct	Lab 4 - Drainage Basins Morphometry
Tue, Oct 21	28-Oct	Lab 5 - Hydrology- hydraulics
Thu, Oct 30	6-Nov	Lab 6: Channel Patterns, Floodplains and Terraces
Tue, Nov 4	11-Nov	Review
Thu, Nov 13	20-Nov	Geomorphic Mapping of Fluvial Systems
Tue, Nov 18	25-Nov	Aeolian Landforms and Processes