

GRG 301C, Welch 1.308, Tu, Th, 2 - 3:30 p.m.,
Office: Room 212, Geography Bldg.
Office hours: Tu, 12:30-1:45 p.m. or by appointment

Fall 2010 Prof. Francisco L. **Pérez**
E-mail: Makena@mail.utexas.edu

This course is called **The Natural Environment**, and focuses on the **Landforms** at the Earth's surface, with emphasis on the **processes** that create and modify landscapes of **continental** areas. First, we will briefly examine processes of rock formation, rock weathering, and soil formation. We will then concentrate on the evolution of landforms at various scales, starting with large-scale landforms (continents, mountain ranges, oceanic basins), and ending with smaller-scale ones (e.g., slopes, rivers, glaciers, etc.).

REQUIRED TEXTS

1. Main Text: *Essentials of Geology* (10th. edition), by F. K. Lutgens and E. J. Tarbuck. Prentice Hall, New Jersey, 2008. (ISBN-13: 9780136003762)

2. Lab Manual: *Introduction to Landforms. A Laboratory Manual*, (3rd. edition), by Brook, G., and Heyl, R. J. Contemporary Publishing Co., Raleigh, N. C., 1993.

3. A brief, inexpensive set of photocopied materials (some of which are *needed* for the lab), which are on sale at **Abel's**, at 715-D, W. 23rd. Street.

EXAMS and GRADING policy. Your **final grade** will be calculated from these:

[a]- Three partial **lecture exams**, which will be worth **23 %** (first exam), **24 %** (second exam), and **23 %** (third exam) of your grade, for a total of **70 %**.

[b]- ...and the **laboratory grade** [which is **30 %** of the final grade].

-LECTURE GRADE:

(a) There will be three PARTIAL (i.e., "MID-TERM") exams. We will **not** have a comprehensive final exam.

First partial Exam: Tuesday, **September 28**

Second partial Exam: Thursday, **October 28**

Third partial Exam: Thursday, **Dec. 2**

-LABORATORY GRADE:

(b) Attendance and weekly participation in exercises will count for **50 %** of your Lab grade. A Lab Mid-term and Final exam will count each for **25 %** of the **lab grade**. Your lab grade (**30 %** of the final grade) will be averaged with your lecture grades (**70 %**). The specific dates for the two lab exams will be announced by the TAs during the third class week.

ATTENDANCE POLICY:

Lectures: The *Academic Policies and Procedures* of the University of Texas state the following official policy regarding Class Attendance and Absences: "Regular attendance at all meetings of the classes for which a student is registered is expected." This clearly means that it is your responsibility to attend lectures and labs regularly. However, given the size of this class, it is not practical to take attendance. Nevertheless, I still recommend you come to lectures every day.

Laboratory: Everyone enrolled in the course is **also** enrolled in a weekly, 90-minute laboratory section. Laboratory attendance is **mandatory**. Lab sections begin meeting the second week of classes (i.e., on August 30). **TAs** for the course: TBA

Teaching assistants can normally be found in their office, located at the 4th floor, Dept. of Geography and the Environment. Office hours for each TA will be announced once assignment of individual laboratory sections has been finalized.

Current Course Information (Fall 2010) can also be obtained at:
<http://www.utexas.edu/cola/depts/geography/courses/>

"The University of Austin provides upon request appropriate academic accommodations for qualified students with disabilities. For more information, contact the Office of the Dean of Students at 471- 6259, 471-6441 TTY."

Week	Topics	Readings
1 (Aug 25 - 27)	Introduction to Earth Science and Geomorphology. Formation and Structure of the Earth.	Ch. 1, 19 Appendix A, Abel's* pp. 7-8
2 (Aug 30 - Sept 3)	Rock Genesis and Rock Types. Physical Weathering Processes.	Ch. 3, 4, 5, 6, 7, 18 Appendix B, Abel's* pp. 9-10
3 (Sept 6 - 10)	Chemical Weathering Processes. Soil-forming Processes and main Soil Properties. Sept. 6: LABOR DAY	Ch. 5, 2
4 (Sept 13 - 17)	Soil Properties (end). Factors of Soil Formation. Soil Types and Geography. Orders of Relief. Continental Drift.	Ch. 5
5 (Sept 20 - 24)	Continental Drift, and Plate Tectonics.	Ch. 16, 17
6 (Sept 27 - Oct 1 st)	Plate Tectonics and Large-scale Landforms. Orogenesis and Mountain Structure. Geologic Structure. First Partial Exam: Tu., September 28	Ch. 16, 17, 18
7 (Oct 4 - 8)	Geologic Structure and Landforms (conclusion). Volcanic Processes and Landforms of Vulcanism.	Ch. 4, 18
8 (Oct 11 - 15)	Earthquake Activity and After-Effects. Slopes: Mass Wasting Processes.	Ch. 8, 15
9 (Oct 18 - 22)	Slopes: Mass Wasting (conclusion). Processes of Slope Hydrology.	Ch. 8, 9, 10
10 (Oct 25 - 29)	Slope Hydrology (conclusion). Fluvial Processes. Second Partial Exam: Th., October 28	Ch. 9, 10
11 (Nov 1 - 5)	Fluvial Processes and Landforms (conclusion).	Ch. 9
12 (Nov 8 - 12)	Karstic Processes and Features. Aeolian Processes and Landforms.	Ch. 10, 12
13 (Nov 15 - 19)	Glacier Formation, and Glacial Landforms.	Ch. 11
14 (Nov 22 - 26)	Glacial Landforms (conclusion). Periglacial Activity and Landforms. Thanksgiving (Th. 25 & Fri. 26)	Ch. 11
15 (Nov 29 - Dec 3)	Periglacial Features (conclusion). Coral Reefs. Third Partial Exam: Thursday, Dec. 2	Ch. 14