

# GEOSCIENCES 1103 PHYSICAL GEOLOGY LAB

Fall 2005

## Course Objectives:

1. To acquaint the students with the techniques used to identify minerals and rocks.
2. To acquaint the students with the use and interpretation of topographic maps, aerial photos and satellite photos, geologic maps, and geologic cross-sections.

**Course Requirements:** Students are expected to attend scheduled lab sessions and read the assigned materials in the lab manual prior to the lab sessions. It is important to bring to lab pencils (black and two or three colors), eraser, ruler, and a calculator.

**Grading:** There will be 4 tests and a Final Exam. Test grades will be 80 % of the grade and the Comprehensive Exam 20%. These test grades will not be curved. No make-up tests will be given without a prior excused absence.

**Extra Credit:** Several unannounced short quizzes will be given during the semester. These quizzes will be for extra credit and can add as much as 5 points to your overall test scores. No make-up quizzes will be given. Regular Lab attendance is the only way to maximize your extra credit points.

## Instructors

**Lab Supervisor: Dr. Ignacio Pujana**

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Office Hours: By Appointment

Teaching Assistants:	
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**OPEN LAB TIMES:** The laboratory is available for student use all hours when not scheduled for regular classes. Open hours will be announced during the first part of the semester and posted on the bulletin board in the lab.

[Click here to see available times](#)

<b>LAB TEXT:</b>  <u>Laboratory Manual for Physical Geology. 12<sup>th</sup> Ed, by Zumberge, Rutherford &amp; Carter</u>	
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## Fall 2005 LAB SCHEDULE

It is required to read the indicated pages before your lab time.

DATE	LAB TOPIC	MANUAL PAGES/EXERCISE
M-August 22	Introduction	Syllabus
W- August. 24	Minerals	pages.2-21; Ex. 1
M- August. 29	Minerals	p. 2-21; Ex. 1
W-August 31	Igneous Rocks	p.22-34; Ex. 2
M-September 5	Holiday	Labor Day
W- September. 7	Igneous Rocks	p.22-34; Ex. 2
<b>M- September. 12</b>	<b>Test 1</b>	<b>Minerals and Igneous Rocks</b>
W- September. 14	Sedimentary Rocks	p.35-44; Ex. 3
M- September. 19	Sedimentary Rocks	p.35-44; Ex. 3
W- September. 21	Metamorphic Rocks	p.45-53; Ex. 4
M- September. 26	Metamorphic Rocks	p.43-53; Ex. 4
W- September. 28	Topographic Maps (Contours)	p.74-87; Ex. 7
<b>M-October 3</b>	<b>Test 2</b>	<b>Sedimentary &amp; Metamorphic Rocks</b>
W-October 5	Topographic Maps (Contours)	p.74-87; Ex. 8
M- October 10	Topographic Maps (Scale)	p.74-87; Ex. 9
W- October 12	Topographic Maps (Profiles)	p.81-87; Ex. 10 & 11
<b>M- October 17</b>	Imagery from Remote Sensing	p.88-99; Ex.12
W- October 19	Geologic Time	p.54-65; Ex.5, 6 & 7
<b>M- October 24</b>	<b>Test 3</b>	<b>Topographic Maps, Remote sensing</b>
W- October 26	Structural Geology and Geologic Maps	p.193-221; Ex. 21, 22A, and 22D
M-October 31	Geologic Maps	Ex. 23A, and 23B
W- November 2	Faults and Earthquakes	p.222-233; Ex. 24A, and, 24B
M- November 7	Seismic Waves	p.234-239; Ex.25 and 26
<b>W- November 9</b>	Plate Tectonics and related phenomena	p.231-251; 27A, 27B
M- November 14	<b>Test 4</b>	<b>Geologic Time &amp; Maps Seismic, Faults &amp; Earthquakes, Plates</b>
W- November 16	Geologic interpretation: Streams, pediments, and alluvial fans	p. 102-191 ; Ex. 13A, 13B and 13C
M- November 21	Geologic Interpretation: Coastal Processes	Ex. 19A, 19B and 19C

W- November 24	Thanksgiving	
M- November 29	<b>Comprehensive EXAM with emphasis in Geologic interpretation</b>	<b>Last day of classes</b>