Course Information

Course: Geology 101L – Introduction to Geology Laboratory **17071** Section 9 **Location & Time**: McCarthy Hall (MH) Room 208 Tuesday 4:00 pm – 6:50 pm

Textbook: Physical Geology Laboratory Manual (7th edition), This course fulfills General Education requirement B.3.

Additional Readings: Several labs and homework sets will be announced and posted on Titanium.

Prerequisite: Completion or concurrent enrollment in Geology 101 (or equivalent course such as 110T or

140).

Instructor Information

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Office Hours: T/Th 7:00pm - 8:00 pm

Course Objectives:

The General Education learning goals for area B.3 are:

- a) Apply scientific methodology through active experimental methods and experiences (laboratory/activity).
- b) Evaluate the validity and limitations of theories and scientific claims in interpreting experimental results.

This lab will serve as a general introduction into how the Earth works; how geologists and other earth scientists study the Earth; how we affect Earth and often the consequences (good and bad) of our interaction with Earth. These are important concepts because over the course of your lifetime, you will be asked to make decisions regarding Earth as a voter, homeowner and user. In the last year, we've seen tragedies across the globe in the form of tsunamis, earthquakes, floods and landslides – so knowledge of Earth may also save your life. With such important consequences, every person should know something about how Earth works as an integrated system.

At the end of this course, you should be better aware of or know:

- (1) How to identify certain minerals, classify rocks by type and name using a variety of experiments
- (2) How to interpret topographic maps, geologic maps and geologic history
- (3) How the Earth works as a set of systems;
- (4) Be a better Earth steward!

GEOL 101L supplements the lecture class that you completed or are completing now. For example, in lecture you may have discussed mineral properties such as hardness, luster, and reaction to acid. In the lab you will learn how to determine these properties and how to identify specific minerals.

Course Material To Be Covered

The most efficient method to complete this lab successfully is to (1) read the assignment before the class period, (2) study notes, if provided, and (3) work diligently during the lab.

Textbook: Assigned readings from the textbook are listed in the class schedule and should be completed **before** the day listed on the schedule. The reading is not long and covers the basic information you need to complete the lab. When you do this, you can come to lab and immediately begin the lab. Reading before class will make the lab periods easier and more enjoyable.

Quizzes: At the beginning of each class there will be a 5 point quiz on the assigned <u>reading and/or homework</u>. The quiz will begin at 4:00 pm and will be completed by 4:05 pm. If you arrive before 4:05 pm, you may use the remaining time to complete the quiz. If you arrive after 4:05 pm, you may not take the quiz. There are no make ups.

Lecture: I will provide short lectures at the beginning of each class as needed. If everyone does well on the quiz, then there will be no need for me to lecture. If everyone does poorly on the quiz, then I will lecture about those concepts that are unclear. The better prepared you are, the shorter the lecture.

The **schedule** shown below is <u>tentative</u> to allow for changes during the semester, as conditions require. For example, if an earthquake occurs during the semester, we may spend a lab discussing this recent event.

Lecture notes are sparse in this class since most of the work is learning by doing. The textbook provides sufficient background material. When available, the notes will be posted on Titanium.

I encourage your **constructive questions and comments** during the lectures. Disruptive behavior, such as a talking and cell phones ringing, will not be tolerated. This behavior detracts from the learning experience of others in the class. You should make certain that cell phones are turned off before entering the class. Disruptive behavior may result in you being asked to change seats, leave class or have your behavior reported to Student Affairs or Public Safety for further action.

THERE IS NO EATING OR DRINKING THE LAB (INCLUDING WATER).

Grading

Your grade in the class will be determined by the following:

Exam #1	25
Exam #2	25
Museum Field Trip	20
Campus Field Trip	10
Quizzes	45
Homework, Study guides, misc.	40
Lab Exercises	135
Total	300

Final Grade determination will be as follows:

6 D- 0 % 5 F 9 %

Exams will consist of multiple choice, matching, short answer or short essay. The short essay answers will be graded on content as wells as clarity. The number of questions will vary. Each exam will stress that portion of the class since the last exam or, in the case of Exam #1, since the beginning of the class. The exams will require some comprehensive knowledge. For example, Exam #2 may include questions that will use vocabulary like sandstone and basalt, so knowledge of rocks (covered before Exam #1) is expected on Exam #2.

Writing You will be required to write short essays for various laboratories and exams throughout the semester. These essays are graded on content (use of geologic vocabulary), style (less than 3 grammatical or spelling mistakes), organization (answer all aspects of the question) and clarity (are the ideas, thoughts and principles expressed correctly). The intent of these writing assignments is to improve your written skills, work with others to observe their writing skills, and just practice writing. Feedback intended to improve your writing is provided in several ways:

- a. Written comments on individual essays.
- b. Sharing instructor rubrics.
- c. Examples of successful essays written by other students.
- d. General comments to the class.

Make-up Exams are not given without a <u>confirmed</u> reason. For example, oversleeping or fatigue is not a valid reason for missing the exam. If you know that some other obligation will prevent you from attending the class on the date of the exam, the instructor must be informed at least one week before the scheduled exam date so that alternative arrangements can be made.

If you have a disability that requires special conditions for testing, please register with the appropriate campus office and inform the instructor so that the appropriate arrangements can be made.

Lab exercises are due at the end of the class period or on date shown on the schedule below. <u>Late lab exercises will not be accepted.</u> The lab exercises are meant to involve both instruction (instructors teaching students), self (gathering information on your own), and peer learning (students teaching students), so discussion is encouraged. However, each person must turn in his or her own answer sheet from the textbook or the handout.

Homework exercises are provided in the textbook and will be posted on Titanium. The schedule shows the day that each homework assignment is due. Late homework will not be accepted. The first two homework assignments are review (if you had 101 lecture some time ago) or introduction if you are currently taking 101 lecture. Some homework assignments introduce a concept that will be applied in a later lab; homework does not necessarily apply to that day's lab. Homework assignments take about 1 hour to complete. Material from the homework may appear on the quizzes and exam.

Field Trip 1 (10 points) Campus Field Trip. We will be walking around to several spots on campus to identify rocks.

Field Trip 2 (20 points) is a self-guided field trip to either the La Brea Tar Pits, L.A. County Natural History Museum or Alf Museum. The field trip information will be distributed on Titanium and is due on the date shown.

Plagiarism or cheating of any kind will not be tolerated. Students who violate university standards of academic integrity are subject to disciplinary sanctions, including failure in the course and suspension from the university. Since dishonesty in any form harms the individual, other students and the university, policies on academic integrity are strictly enforced. I expect that you will familiarize yourself with the academic integrity guidelines found in the current student handbook.

Emergency Information - If anyone feels that they will require assistance during an evacuation, please come up after class today and let me know.

For Geology 101 Laboratory in MH 208, the following locations of emergency facilities are:

Fire Alarm:

Telephone:

Across hall next to MH 207

Emergency Map:

Chalk rail next to door

Emergency Exit Route 1:

Exit room, turn left to stairs

Emergency Exit Route 2:

Exit room, turn right to stairs

Emergency Assembly Area: The lawn south 150 fee from Dan Black Hall (toward Nutwood)

Emergency closures: In the event of an emergency that disrupts normal campus operations or
causes the University to close for a prolonged period of time due to circumstances such as an
earthquake, we will do our best to continue the class via TITANium, if it is available. Therefore, as soon
as possible after such as event and at least once a day, check the class TITANium site and your CSUF
email for messages and instructions. You can obtain emergency information about campus operations
on the CSUF web site, via the Fullerton Campus Operation & Emergency Closure Line (657-278-4444) or
the Irvine Campus Operation & Emergency Closure Line (657-278-8676).

Please be aware that smoking is prohibited at CSUF; please show the respect for the others around you that you hope they show you and follow this simple rule.

Tentative Schedule

Week	Date	Subject	Reading	Homework Due	Quiz	
1	August 27	Welcome lecture/field trip forms				
2	September 3	HW 1 & 2 (10)				
3	September 10	Minerals (15)	Ch. 1		1	
4	September 17	Igneous Rocks (15)	Ch. 2		2	
5	September 24	Sedimentary Rocks (15)	Ch. 3		3	
6	October 1	Metamorphic Rocks (15)	Ch. 4		4	
7	October 8	Campus Field Trip (10)		Study Guide (10)		
8	October 15	Exam 1 (25)				
9	October 22	Topographic Maps (15)	Titanium		5	
10	October 29	Structure (15)	Titanium		6	
11	November 5	Geologic History (15)	Ch. 5		7	
12	November 12	No Lab – Self-Guided Museum Field Trip (20) Turn in next lab				
13	November 19	Earthquakes and Faults (15)	Ch. 6		8	
14	November 26	No Lab – Fall Break				
15	December 3	Energy Video and Questions (15)	Titanium	Study Guide (10)	9	
16	December 10	Exam 2 (25)				