

GENERAL GEOLOGY LAB SYLLABUS

Professor: Phil Farquharson, "Geology Guy"

E-mail address: philfarq@gmail.com

Message phone: (none – please use E-mail)

Office Hours: Thursdays 11:30 AM - 1:30 PM, room S6-205 (our lab/classroom)

Web Site: <http://geolab.geology-guy.com/> (instructor's personal, "unofficial" website)

Blackboard: <https://sdccd.blackboard.com/> (where you will submit all of your work)

MasteringGeology Study Area: All sorts of Visualizations, Practice Quizzes, even Flash Cards & Glossary! (through Bb)

Earth Revealed streaming videos: <http://www.learner.org/resources/series78.html> (dated, but useful!)

Textbook (Recommended) and MasteringGeology (Required)

- Laboratory Manual in Physical Geology 10th Edition, edited by Richard M. Busch for the American Geological Institute and National Association of Geoscience Teachers. We'll have copies of the eighth and ninth editions available in the class for you to lay your hand on, and extracts from the tenth edition will be available in Blackboard.
- Modified **MasteringGeology** (purchased through Blackboard only). Can be purchased alone (around \$40+), or with the eText (about \$70+ total cost).

Optional Regional Geology Resource Books

The Rise and Fall of San Diego: 150 Million Years of History Recorded in Sedimentary Rocks, Patrick L. Abbott, 1999, Sunbelt Publications. ISBN: 0-932653-31-6

Roadside Geology Along Sunrise Highway, Michael J. Walawender, 2011, San Diego Association of Geologists. ISBN-13: 978-0-916251-19-2

Teaching Philosophy

As odd as this may sound, I don't consider myself a **teacher**. I can't teach you anything. My goal is to encourage you to **learn**. Picture me in wearing a pleated skirt, a sweater with a letter on the front (G, as in Geology!) and pom-poms in hands, cheering you on: "Go! Fight! Learn tonight!" I don't **give** grades. I'm merely the scorekeeper. You are responsible for your success. I have been considering myself a **mentor** since a supervisor who hired me some time ago pointed out that all of the references that he checked said that mentoring was part of my persona. Hence, I have adopted that label for myself: **Earth Sciences Mentor**. Note that geology is a highly interdisciplinary field of study. Lesson 1 - it's all one thing!

Instructor Availability

I am a friendly, helpful, approachable person. I will be available before class for at least an hour to answer your questions, E-mail is my preferred method of communications at other times.

Course Details

Prerequisites, Corequisites, or Limitations on Enrollment Enforced!

Corequisite:

Completion of or concurrent enrollment in GEOL 100 with a grade of "C" or better, or equivalent.

Prerequisite (Advisory):

ENGL 047A or ENGL 048 and ENGL 049, each with a grade of "C" or better, or equivalent, or Assessment Skill Levels W5/R5.

Description

GEOL 101 Physical Geology Laboratory This laboratory course is a practical study of mineral and rock

identification, landforms, topographic/geologic map interpretation, and geologic structures. This course is intended for students with a general interest in the geological sciences as well as those majoring in geology, earth science, or geological engineering. Associate Degree Credit & transfer to CSU. CSU General Education. IGETC. UC Transfer Course List.

3 Lab Hours, 1 Units - Letter Grade or Pass/No Pass Option

Student Learning Outcomes (“SLO’s”)

Upon completion of this course, students should be able to:

- **Survey of Rocks and Minerals:** Correctly classify a set of twelve hand-specimen rocks into the 3 major rock groups and correctly identify the most abundant mineral in each sample.
- **Geologic Time Literacy:** Determine the proper age sequence of a set of ten rock formations and two faults within a geologic cross section diagram, using Steno's principles of stratigraphy.
- **Topographic Maps and Spatial Literacy:** Correctly interpret a topographic profile for a line transect drawn across a topographic map, including the location of ridges, peaks, and valleys.
- **Structural Geology & Geologic Map Literacy:** Correctly interpret the ancient crustal stress regime (type and direction) that produced a given sets of faults and/or folds illustrated on a geology map.

General Requirements

- Attendance is very important. Important material will be covered in each class session. I will take formal attendance the first two class meetings. After that, I will be loosely monitoring student progress in Blackboard and Mastering and **might** send nagging emails to those who do not appear to be participating, and therefore in danger of a negative outcome in the class: the dreaded "F"! You are now responsible for your own success.
- **PLAN TO ARRIVE EARLY FOR CLASS!!**
- Texting, Facebook, Twitter - please be discreet!
- Visitors allowed only with instructor approval.
- Audio or video recordings are encouraged, if it helps you learn.
- Food and beverages are not allowed in the lab. Plastic water bottles are allowed (but highly frowned upon!!!) -- clean up behind yourself.

Academic Misconduct: (i.e., PLAGIARISM!)

Section 41301 of Title V of the California Code of Regulations defines academic misconduct as “cheating or plagiarism in connection with an academic program at a campus.” Examples of cheating include using notes or copying others’ work during an exam, using old exams and study guides to prepare for an exam, and falsifying data or records for an exercise. Examples of plagiarism include copying other students’ answers or, when working in collaborative groups, not stating answers in your own words, based on your own understanding. For more information about plagiarism, please see the following:

http://www.sdccdonline.net/students/resources/College_Policies.pdf.

ACADEMIC ACCOMMODATION (Policy 3105)

The District is committed to the fundamental principles of nondiscrimination and accommodation in academic programs and to all provisions of Sections 504 and 508 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. District Policy 3105 provides for academic adjustments for students with disabilities.

Important Stuff:

- Students who remain enrolled in a class beyond the published withdrawal deadline, as stated in the class schedule, will receive an evaluative letter grade in this class.
- The Family Educational Rights & Privacy Act (FERPA) prohibits the release of any student educational information to another individual, including family members, without the student's written consent.

Late Work Policy:

NO points will be deducted for late work! Please try not to fall behind, but I realize that life is constantly throwing us curve balls. I want to make our class as stress-free an environment as possible - I want you to learn!

Field Trips

Field trips will be held to observe local geology. The trips will require light walking, taking notes, sketching, and class discussion. The dates for these trips are shown in the schedule below.

In Class Work

At the beginning of each lab period, there will be a short quiz on the pre-lab video for that subject. You are responsible for being prepared.

Grades

Grades are calculated as follows: A = 90-100%, B = 80-89%, C = 70-79%, D = 60-69%, F = < 59%.

Course grades are calculated on:

- MasteringGeology Homework 60%
- In-class exercises 25%
- Field Trip Reports 15% (*percentages are approximate*)

Important Dates

- February 5: Last day to add. Last day to drop with no “W” recorded.
- February 29: Pass/no pass deadline.
- April 8: Last day to withdraw without an evaluative grade.
- May 21: End of Spring Session.

Tentative Optional Field Trips

- Miramar Lake / Mt. Woodson Friday, March 4th
- Tourmaline Beach Friday, April 8th (*change*)
- Peninsula Ranges Batholith Saturday, April 23rd

Tentative Required In-class Field Trips

- Sunset Cliffs Thursday, April 28th
- Rose Canyon Fault Thursday, May 12th

Important Note about the Schedule:

This schedule is tentative and may be changed or modified by the instructor at any time during the semester. Students will be notified in a timely basis if changes are made. The latest version will always be found in Blackboard and on the “unofficial” web site at <http://geolab.geology-guy.com>.

SUSTAINABILITY ON CAMPUS

Miramar College is committed to sustainability on campus and in our classrooms, as reflected in the SDCCD Sustainability Proclamation. To minimize the use of paper resources, please consider when a document may be shared digitally rather than printed. When a document must be printed, decrease the default setting on your margins to at least 0.8” and print on both sides of the paper. Please utilize the campus and classroom recycle bins for all recyclable materials: plastic bottles and containers (#1-7), cans, paper and cardboard. You are encouraged to bring reusable drink containers to school rather than disposable plastic bottles. Thank you for considering your role in keeping the campus environment clean, and conserving resources in your academic life.

Revised Schedule (as of 7 March)

| Date | | Wk. | Exercise (in book) | Topic | Milestones |
|----------|----|-----|-----------------------|---|--|
| January | 29 | 1 | 1 | Introduction / Scientific Method - Observe, Measure, Test | Syllabus quiz, in Blackboard (10 pts) |
| February | 4 | 2 | 9 | Topographic Maps and Aerial Photographs | |
| | 11 | 3 | 2 | Isostasy and Plate Tectonics - the Origin of Magma | |
| | 18 | 4 | 3 | Minerals - Properties and Identification | Mineral ID exercise (Bb) |
| | 25 | 5 | 4, 5 | The Rock Cycle - Igneous Rocks - Volcanic and Plutonic Rocks | Igneous Rock ID exercise <i>(paper!)</i> |
| March | 3 | 6 | 6, 7 | Sedimentary Rocks - Classification & Properties Metamorphic Rocks - Classification & Properties | Sed./Meta. Rock ID exercise <i>(paper!)</i> Miramar Lake F/T (Friday, 3/4) |
| | 10 | 7 | 10 | Geologic Structures, Maps, and Block Diagrams | |
| | 17 | 8 | 8 | Dating of Rocks, Fossils, and Geologic Events | |
| | 24 | 9 | 11 | Stream Processes, Landscapes, Mass Wasting, and Flood Hazards | |
| | 31 | | | <i>Spring Break - no class</i> | |
| April | 7 | 10 | 12 | Groundwater Processes, Resources, and Risks | Tourmaline. Beach F/T <i>(Friday 4/8)</i> |
| | 14 | 11 | 13 | Glaciers and Climate Change | |
| | 21 | 12 | 14 | Dryland Landforms, Hazards, and Risks | PRB F/T (Saturday 4/23) |
| | 28 | 13 | 15 | Coastal Processes, Landforms, Hazards, and Risks Sunset Cliffs Field Trip <i>(during class period)</i> | |
| May | 5 | 14 | 16 | Earthquake Hazards and Human Risks | |
| | 12 | 15 | | Rose Canyon Fault Field Trip <i>(during class period)</i> | |
| | 19 | 16 | | Lab Wrap-up! | |

Bye-bye, Geology Guy!