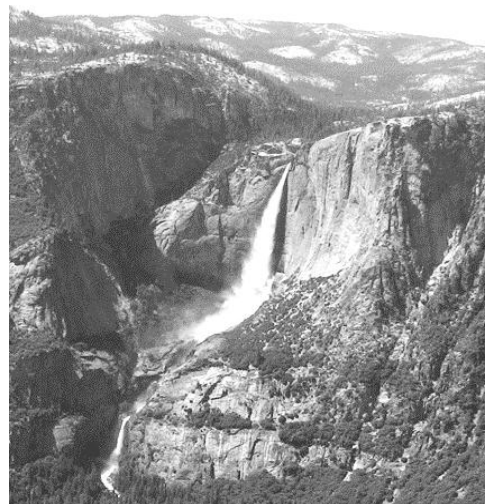


Earth Science (Lab)

Mount San Antonio College Course Syllabus & Outline – Fall 2014



Instructor: **Dr. Mark Boryta** Office: 60-1102

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Office Hours: Note the location!	Mon: 1:30-3 in 11-2310	Tue & Thu: 10-11:10, Tue: 3-3:30 in 60-1102	<i>or by appointment</i>
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Class Meets: Wed, 8:00 - 11:10 a.m. in 60-1515

Class Web Page: <http://faculty.mtsac.edu/mboryta/geol8.html>

COURSE DESCRIPTION: Laboratory applications and problem-solving in geology, oceanography, meteorology, and astronomy. Recommended for students needing a lab to transfer to a 4-year college/university.

COREQUISITE: This course must be taken concurrently with GEOL 8 since this lab section is linked.

REQUIRED TEXT: No text or lab manual is required for this class. Exercises and activities will be in the form of handouts.

FORMAT: Class will consist of in-class activities and instruction designed to help you learn techniques pertinent to the subject.

SLOs: The course's current Learning Outcomes (Measurable Objectives) are at <http://webcms.mtsac.edu/webcms/search.asp>

GENERAL INFORMATION: This class is designed to help you understand more fully the Earth Science concepts touched upon in the lecture class (GEOL 8) by providing hands-on, instructor-led activities. This section is linked to GEOL 8, and the syllabus and policies for that class also pertain here (see below).

COURSE REQUIREMENTS: You must be signed up for the lecture portion of this class simultaneously, since the material covered will be intimately linked to the lecture topics. In order to make the most of your educational experience, take these suggestions:

1. First, if this class seems difficult for you, seek help from me AS SOON AS YOU CAN. **I am here to help!**
2. **Come to each and every class, on time;** this is a college-level class, and we will cover material that is not in your book.
3. **TAKE PART IN CLASS!** This class is for YOU, so try to answer and ask questions!
4. **Take good notes** on the important concepts as you read and as you pay attention in class. If you've read the text assigned for lecture ahead of time, you'll know how to spell new words and you won't have to write everything down! It may even help you to **rewrite your notes** after each class.
5. **STUDY the illustrations!** "A picture is worth a thousand words" applies to your textbook.
6. **Be sure you know what to do, how to do it, and why you're doing it.** This applies even though you'll be learning alongside and working with your fellow students. Don't watch and copy!
7. **Start studying now** for the next exam! The best ways to do that are to
 - a) download the study guide from the Internet, and
 - b) involve yourself in a study group.
8. Finally, if this class seems difficult for you, seek help from me AS SOON AS YOU CAN. **I am here to help!**

Your lab grade will be based on attendance and earnest participation (10%), weekly lab exercises/quizzes (about 40%), exams (a.k.a. "practica", about 60%), and assignments to be discussed later (value will alter that for quizzes and exams).

LABORATORY TIME: Each day in Lab, you will be learning about concepts by taking part in hands-on activities. The instructor will start with a lecture/discussion pertinent to the topic, and then students will conduct hands-on activities designed to reinforce those concepts. During activity time the instructor will be available to assist on a more personal basis. At the end of the period, you will have a chance to prove how well you have mastered the

content by taking a quiz, as by explaining how one goes about identifying a mineral characteristic such as cleavage or hardness, explaining what a rock texture tells you about the history of formation of the rock, or by plotting or making appropriate calculations with a data set in order to interpret its significance.

ELECTRONIC DEVICE POLICY: Electronic devices (cell phones, laptops, translators, etc. – calculators okay!) **may not be used in class AT ANY TIME**, unless, of course, instructed to do so. If you text in class or your cell phone goes off in class, you will be **penalized 10 points** and your cell phone will be confiscated until the end of class! (Breaks too!)

ATTENDANCE: It is important to come to class. Reading the book does not affect your understanding of the material in the same way that interacting with others in class will; besides, some of the material we will cover is not found in your book. Since you chose this class over others, I will assume that you intend to be here, and if you miss a class then a real emergency has occurred. **As long as it is not an exam day, you need not bring an excuse, but you cannot make up a quiz** under any circumstances. If something is due, you must still turn it in on time; give it to a classmate or **e-mail it to me**.

Attending class means doing more than filling a seat. This is YOUR class, and YOU can get out of it what YOU put into it. You should have enough respect for yourself (YOUR time is valuable!) that you take every advantage of this opportunity to learn as much of this interesting and very important material as you can. Furthermore, you should not be disruptive –**don't let your cell phone go off**, don't show up late or unprepared, don't snore, etc. You should always respect your peers.

Attendance Regulations: Roll is taken at the beginning of class each day. Starting with the SECOND week of class (_____), you will be marked TARDY if you come in during roll but after your name is called, and you will be marked ABSENT if you are not present during roll. This means that even if you come in "only" 5 minutes late, you'll be marked *absent*! Furthermore, if you leave class early, you will be marked absent. **Excessive tardiness/absence will result in your grade being lowered - by one letter for every 2 absences!**

DROP POLICY: You should read the College Attendance, Drop and Withdrawal Policies (find them in the Schedule of Classes). In this class, if you missed the field trip, are not passing the class and/or are marked absent for **one exam or more than 2 classes** by the final drop date, I may drop you (unless you have cleared your circumstances with me). However, DO NOT *expect* me to drop you – if you are no longer attending class, you should take the initiative to drop or you may receive a grade of F! Remember, these rules are in place to help YOU succeed! Below are important drop deadlines for the current semester:

Last Day To: Is:	Add the Class Sept 5	Withdraw w/ Refund Sept 5	Withdraw w/ NO Refund and no "W": Sept7	Withdraw Oct 31
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Cheating: Of course cheating is not tolerated. **A student who plagiarizes or cheats in any way shall fail the course, and** a letter will be written and placed in the student's file in Student Services. DO NOT turn in work that is not your own. **Just don't do it!**

Your grade in this course will be determined from my assessment of your understanding of the material, based on the total number of points you earn as a percentage of the total expected:

Mastery: **A = >90%**
Solid: **B = 80 - 89%**
Basic: **C = 70 - 79%**
Partial: **D = 60 - 69%**
Insufficient: **F = <60%**

TENTATIVE Outline of Topics for Lab Exercises

Date	<u>Laboratory Topic: Earth Science</u>
8/27	Introduction; How Atoms Make Minerals
9/3	Mineral identification and Quiz
9/10	Textures and Igneous Rock identification and Quiz
9/17	Ore Minerals and Igneous Rocks and Quiz
9/23	Exam #2 on Igneous Minerals and Rocks; then Textures and Sedimentary Rock Identification
10/1	Textures and Identification of Metamorphic Rocks and Quiz
10/8	Geologic Time Concepts and Quiz
10/15	Plate Tectonics, Earthquakes and Volcanism
10/22	Oceans, Currents Waves, Coastal Features and Tides
10/29	Review Sedimentary and Metamorphic Rocks
11/5	Exam #4 on Sed/Met Rocks, Time, PT, Quakes, Volcanoes, Oceans
11/12	Heating the Atmosphere; Adiabatic Processes
11/19	Identifying Clouds and Cloud Patterns; Weather Maps
11/26	Solar System Objects, Stars and Galaxies
12/3	Catch Up or Review
	Final Exam (COMPREHENSIVE): includes ALL activities, and will be worth 200 points ; it will be on _____, December _____ at _____ in Rm 60-1515 (Homework: Fill in the blanks using, e.g., the Schedule of Classes)