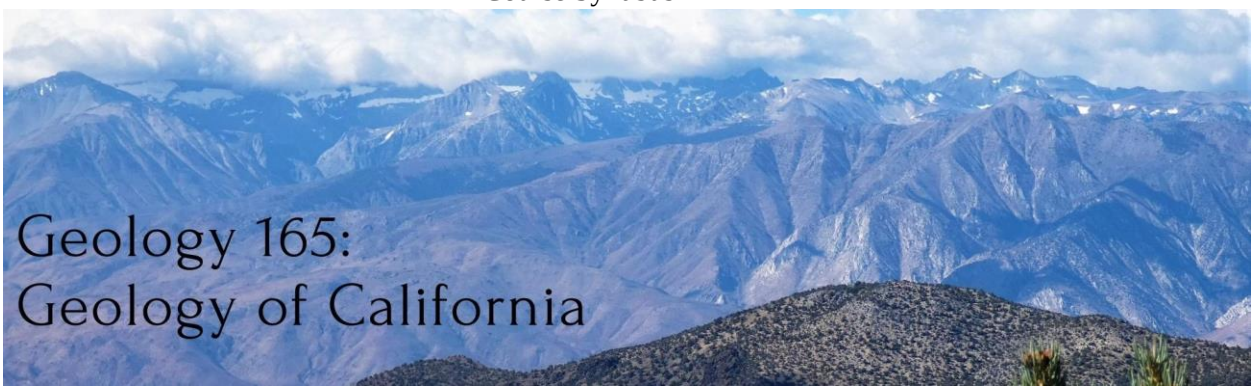
Course Syllabus




# Welcome to the Geological Sciences!

**Our world is a rich and mysterious place, and California is the place to discover it. California is a state of many superlatives, and the geology is no exception: it has the highest point in the lower forty-eight states, and the lowest point in the western hemisphere. It has within its boundaries the oldest living thing, and the largest living thing on the earth. It contains examples of every kind of tectonic plate boundary (don't worry, you'll learn what this means), and rocks from every geological time period. It has some of the most unique minerals and rocks found anywhere, including some that are found nowhere else on earth. It includes some of the driest and hottest and wettest places in North America, and some of the most active faults and volcanoes found anywhere. In this course, we will learn how the state evolved throughout geologic time, about some of the geologic hazards that face the state, and how we might deal with some of the worst environmental problems facing California.**

**Instructor Information**

**Garry Hayes – Science Community Center 336 (Not currently accessible)**
**Phone and Voice Mail: 575-6294 (messages only for the time being)**
**Office hours: TTh 11:45-12:45, 5:30-6:30**
**E-mail: hayesg@yosemite.edu (notes can also be sent through Canvas)**

**Web Page: http://hayesg.faculty.mjc.edu/** (Links to an external site.)
**The Geoblog: http://geotripper.blogspot.com/**

**Text:**
***California's Amazing Geology*, Donald Prothero, 1st Edition**

**Grading Policy** (**Subject to change due to extenuating circumstances**):

| Task | Points Possible | Percentage of Grade |
|---|---|---|
| Chapter Quizzes, Special projects | | 60% |
| Midterm | | 20% |
| Final | | 20% |
| Total | | 100% |

A: 90% B: 80% C: 70% D: 60% F: Less than 50%

Because of the national pandemic, this course will be held online. It will consist of a series of weekly modules completed through Canvas. Each week will include readings, discussions and other projects. Each module will end with a quiz. Try to get started early in the week!
Please understand that this is the very first time that Geology 165 has been taught online, and I may make considerable changes to the grading framework as we find out together what works well and what doesn't. The point totals will almost certainly look different by the end of the course, but expect the grades to be the same percentages (90% for an A and so on).

**Accommodations**
The course is designed to be accessible for all. If you have a disability, please let me know through email or by phone. I will work with you. I do my best to make sure everyone who takes this course has a positive experience so they can be successful.

**Regular Contact**
Like you, I'm juggling many responsibilities every day, so I have limited availability during traditional business/college hours, but I want to help you succeed in this course. Here is my plan for maintaining **Regular Effective Contact** with you throughout the term:

- I will usually post at least one **announcement** per week with reminders and other notifications about what is happening in the course and/or on campus. If you configure your announcement notifications (Links to an external site.) to be sent to your email, you'll be emailed anytime I send an announcement.
- I will provide you with **feedback on your assignments**. My goal is to do this within one week, but sometimes it takes a little longer. Check Grades for my feedback. (Links to an external site.)
- I will maintain regular virtual office hours: **TTh 11:45-12:45, 5:30-6:30**
- I may occasionally **participate in discussion board assignments** with you.
- I may **message you** if I see that you are falling behind. Please try to let me know if you run into difficulties that prevent you from submitting in a timely fashion.
- I may reach out to you in other ways as well, including **phone messages** and **email**.

**Due Dates and Late Work**

Use the Canvas calendar (Links to an external site.) (Links to an external site.) and To Do list (Links to an external site.) (Links to an external site.)to keep track of upcoming assignments in all of your courses.

Late assignments will be accepted for up to 60% of the total score, and only for one week past the due date. If you have circumstances that keep you from submitting an assignment, it's best to begin by sending me an email and letting me know. We can work together to help figure something out for you.

Overall, it's important to submit work on time. You'll want to be on the same page as your peers during group work and discussions.

**Academic Honesty**

At MJC, we expect academic honesty and integrity in all of the work you submit. This means completing your own, original work for every assignment.

**Course policy:** Any assignment where academic dishonesty is involved will automatically receive an F (zero points), which may result in the student failing the course. A report may be filed. For additional information, see the MJC Standards of Student Conduct webpage (Links to an external site.)
(Links to an external site.) (Links to an external site.)

In this course, **plagiarism*** detection software such as Turnitin may be used on assignments you submit.

## Course Goals

1. **What will you know when you finish this course? What new skills will you have? The following items are the Student Learning Outcomes (SLO's) for California Geology. Upon successful completion of the course, you will be able to:**
    1. **Distinguish the elements of the scientific method and discover how these principles apply to the study of California geology**. All sciences share a common methodology of attaining knowledge that seeks to eliminate bias and prejudice in research. You will know the difference between a hypothesis and a theory (and it may very well not be what you think!).
    2. **Demonstrate the ability to use basic geologic principles and the examples of present-day geologic processes to explain geologic events of the past, as revealed by fossils and rocks**. Many people are surprised that a geologist can look at a few rocks in a roadcut or mountainside and then immediately tell a complete story of how those rocks came about. In this class, you will learn to identify the basic rocks and minerals, and the set of principles that geologists use to tell the story of the rocks. You will have the ability to interpret the story in the rocks yourself, either in pictures and diagrams, or by visiting the localities yourself.
    3. **Reconstruct and summarize the major geologic events in the history of the California region and each of its provinces**. You will be using your skills to figure out how California came into being. Different parts of California have different stories, from the volcanoes of the Cascades, to the granite peaks of the Sierra Nevada, to the ancient rocks of the Mojave Desert to the very strange and convoluted sediments of the Coast Ranges. Not to knock pop culture, but you will know more about California geology than literally any television or newspaper reporter. You will be criticizing and critiquing the news regularly, especially when they make mistakes about earthquakes and volcanoes.
    4. **Explain volcanism, faulting, stream and glacial erosion, mass-wasting, and other geologic processes active in California.** California is one of the most diverse landscapes

in the world: there are few places where you can start driving in a hot desert, go up and ski for a few hours, and then go to the beach to work on your tan. Almost every important geologic process has an example taking place in this state, and you will understand how they work.

5. **Assess and criticize competing hypotheses regarding the origin and tectonic history of the different provinces of California**. Geologists are still arguing about things going on in California. This is how science is meant to work, so we will be learning how controversies and arguments are settled in geologic research.
6. **Analyze and assess geologic hazards that threaten inhabitants of California**. Perhaps this is the most important objective in the class. No matter where you live, be it in California or anywhere else, geological processes can kill and injure people, cause property damage, and just make life miserable. You will know the chances of earthquakes, volcanic eruptions, landslides, and floods in given areas of the state, and how best to deal with such hazards.