

Geology 190: Summer Geology Field Studies – Geology of the Hawaiian Islands

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Introduction:

Geology 190 is a two-week long summer field studies program that takes students to the important geological localities found in the western United States and around the world. We often teach the course in conjunction with students taking Anthropology 190, which is a unique dynamic that enriches the experience of everyone taking the courses. The Hawaiian Islands are one of the most unique environments in the world, both geologically and in terms of humanity. Isolated by thousands of miles of open sea, the islands have developed a distinctive culture and history. The volcanic islands originated on a geologic hot spot, which means that each island is of a different age and degree of growth and erosion. The natural ecosystems developed from accidental arrivals of plant and animal species, and thus the islands have the largest number of endemic species in the United States.

Course Orientation:

We will hold at least one orientation meeting and another pre-trip meeting prior to departure (see the itinerary for times and places). You will need to attend these meetings as part of your course content. We will discuss important aspects of the course (assignments, pre-trip preparation), and the trip itself. At the first meeting you will choose the topic of your presentation and paper so that you can begin doing research immediately. I am available prior to leaving on the trip so that we can discuss your topics and I can help with any information you may need!

Course Requirements:

This is a 3 unit class, and much of your learning will occur while in the field. However, before we leave, you will need to get involved in choosing a topic that will be all yours! See Presentation information below. To earn a grade in this class, you will need to:

1. Attend orientation (or communicate with me independently) and wrap-up meeting(s).
2. Prepare and present a topic of interest to the class on the trip.
3. Participate in class lectures during the trip and take complete and detailed notes during these lectures. Keep a journal/field notes while at each stop during the trip (museum information, etc).
4. Complete regular and pop-quizzes during the trip.
5. Complete the provided worksheet that constitutes a take home final. It will be submitted a week after the trip.

Textbooks and Materials: There are no required books to purchase...you will be given readings to complete along the way.

Please bring along a journal type notebook for keeping lecture and fieldnotes during the trip (a self-contained book of paper, not pages in a binder—these might blow away!).

Fees:

This is a three unit course, so a per-unit fee applies. There is a trip fee of \$2,200 which covers transportation, food, entry fees and teaching materials. It is paid in the MJC Business Office in the Student Center on East Campus. Please pay as soon as possible. The fee does not include air fare to and from the Hawaiian Islands.

Presentation:

All trip participants are enrolled in both Geology and Anthropology 190. Participants will be expected to keep field notes and to complete worksheets and quizzes during the trip, and to prepare a written project or informal presentation on a subject of your choosing.

Quizzes:

During the course of the trip you will have regular quizzes on the regions we visit as well as the general information you should all be prepared with before we leave.

Field and Lecture Notes:

At each stop, we will have a lecture on the region and what you should be learning while visiting. For each of these lectures, you should take detailed notes for your reference (paper, presentation), as part of your complete packet to be turned in at the end of the trip, and since these topics will be addressed in future quizzes! In addition to the actual lecture, you should get used to taking your field notebook with you as you travel around the parks and take notes on the things that you see and learn. These will help you in all ways presented above as well!

Important Information about the Trip!**Food Considerations****Breakfasts:**

Check Accommodations Chart for Hotels that provide breakfasts. On mornings where breakfast is not provided, plan on local restaurants or fast food.

Lunches:

Assume lunch to be on the road or trail every day and carry food accordingly. Check itinerary and listen for our suggestions for each day. We will have a limited “tailgate” party at lunchtime with various snack foods available.

Dinners:

Most days we plan to be back at our hotel each day by dinner time. You will have free time to go where you wish. There is often a restaurant within the hotel or within a short walk. You may ask if a driver plans to go into town. There will be one or two days in Hilo when we are going to be out way past sundown. We will let you know ahead of time when that will happen.

Your “Family”:

While this is a formal class experience, we are also a group, and all kinds of group dynamics apply when we travel together in close quarters, including spending nights as a group in hotels. We like to compare ourselves to one giant dysfunctional family, with little “issues” that sometimes arise. With this in mind, please remember to be kind to the others in the group and maintain a good attitude. Avoid jeopardizing yourself or others by abusing alcohol or drugs. If issues arise, contact the professors to deal with it.

Please remember at all times we are also representatives of Modesto Junior College, and that your actions reflect on all of us. As always “be kind” is good advice. Remember to tip those who serve you as housekeeping people and waitpersons.

These notes are from the official course outline for Geology 190, and apply to all international and overseas trips:

Required Objectives

Upon satisfactory completion of this course, the student will be able to:

- a. Identify the igneous, sedimentary, and metamorphic rocks found in selected sites of geological significance in international and overseas localities.
- b. Describe the plate tectonic interactions that resulted in the landscapes exposed in the field trip localities.
- c. Identify the principle tectonic and erosional processes, and recognize the geologic structures present in the regions visited by the trip participants.
- d. Model the geologic history of the region under study by observing and interpreting selected outcrops.
- e. Assess the effects and consequences of human interactions with the region under study.