

Course Description and Syllabus

Course Information

Credits: 3

Meeting time and place: Tu-Th 10:30 – 11:45, POST 706

Instructor: Dr. Julia Hammer

office: POST 617B

office Phone: 956-5996

email: jhammer@soest.hawaii.edu

Office hours: M 1-2:30 pm and by appointment

Required Texts

Lockwood, J.P., Hazlett, R.W., 2010. Volcanoes: Global Perspectives. Wiley-Blackwell, Hoboken, NJ.

Thompson, D., 2000. Volcano cowboys: the rocky evolution of a dangerous science. St. Martin's Press, New York.

Optional Texts and Resources

Sigurdsson, H.S., Houghton, B.F., Rymer, H., Stix, J., McNutt, S.R., 1999. Encyclopedia of Volcanoes. Academic Press, San Diego.

Siebert L, Simkin T (2002-). Volcanoes of the World: an Illustrated Catalog of Holocene Volcanoes and their Eruptions. Smithsonian Institution, Global Volcanism Program Digital Information Series, GVP-3, (<http://www.volcano.si.edu/world/>).

US Geological Survey Volcano Hazards Program: <http://volcanoes.usgs.gov/>

Course Objectives

By the end of the semester you will be able

- to explain how and why volcanoes erupt
- to describe the relationship between volcanic landforms, deposits, and processes.
- to identify and describe volcanic rocks and interpret their origins
- to understand volcanoes in a plate tectonics framework
- to understand volcanic hazards, hazard mitigation and volcanic monitoring
- to work effectively and professionally in a group

Lecture

Use of the text is critical for getting the full benefit of lecture.

- read the assigned text *before* class. Answer the assigned questions on the Laulima site under Tests and Quizzes.

We'll be using interactive techniques, such as lecture tutorials and clickers.

- Treat your clicker with care.
- Work together to maximize your learning.

Some days we will have demonstrations that can be wet, sticky, and messy.

- Wear appropriate clothing.
- Help with setup and cleanup (please!)

We will work problems out in real-time together.

- Bring a calculator and colored pencils/ pens to class.

To save paper, lecture notes will not be distributed. I will make every effort to upload the powerpoint presentation for each lecture within a couple of hours of class.

- Download the lecture presentation from the Laulima site, under Resources.

Laulima

As noted above, we'll be making extensive use of the course management tool, Laulima. Navigate to the site : <https://laulima.hawaii.edu/portal>. There you will find announcements, a calendar of events, assignments, and tools for communicating with members of the class.

The screenshot displays the Laulima portal interface. At the top, there is a navigation bar with course identifiers: GG-300-001 [MAN.74940.FA12], GG-301-001 [MAN.71686.FA11], GG-301-001 [MAN.71546.FA12], and GG-602-001 [MAN.88732.SP12]. Below this, the 'Worksite Information' section features a large image of a volcanic eruption. To the right, the 'Recent Announcements' section shows a message: 'Welcome to GG300: click for instructions' by Julia Hammer on Aug 16, 2012. A calendar for August 2012 is also present, with the 16th highlighted. The left sidebar contains a navigation menu with various tools and resources.

Field Trips

We are fortunate to be living in a volcanic landscape that features an active eruption nearby. We will take advantage of these first-hand learning opportunities, and take two field trips this semester: one to Koko fissure in Southeast Oahu, the other to the island of Hawaii. The tentative dates are Saturday, Oct 6 for Koko and Nov. 9, 10, 11 for the big island. There will be no cost for the Koko trip, provided we get volunteers to drive personal vehicles. The costs for the big island trip is estimated to be \$250 per person, with a more precise value to be determined as we draw closer. This estimate includes the cost of rental vans and accommodation for two nights. You will be responsible for scheduling your flights, with time targets to be announced. We will stay together at an inn in Hilo with kitchen facilities, to keep food costs low.

Grading

Homework (including Field Trip exercises and movies)	(40%)
Classwork (worksheets, group work)	(20%)
Reading questions (administered using Laulima)	(15%)
Final Exam	(15%)
Lecture participation (clicker questions, attendance)	(10%)