

Earthquakes (GEOS-120 PART A, Lecture TR 11:30am-1:00pm) 1/16/07 through 2/20/07

Professor: Douglas Christensen
Offices: Rm 413 Geophysical Institute - Phone: 474-7426
and Rm 334 Natural Science Building – Phone: 474-5181
Email: doug@giseis.alaska.edu
Office Hours: 10:00-11:00 am on Tues. and Thurs. in 334 Natural Science Building
or by appointment
Suggested Text: Earthquakes, by Bruce A. Bolt
Grading: Quizzes, Thurs., Jan. 25, Feb. 1, 8, Total 15% (5 min. each)
Final, February 20, 50% (1.5 hr.)
Labs, 35% (Total of 4 Labs)

OUTLINE

1/16/07 Chap. 2	Lecture Notes 1	Historical Perspective of Seismology Where Earthquakes Occur Earthquake Geography and Plate Tectonics
1/18/07 Chap. 3,4	Lecture Notes 2	Earthquake Geography and Plate Tectonics (continued) Faults in the Earth The Causes of Earthquakes
1/23/07 Chap. 1,9	Lecture Notes 3	The Causes of Earthquakes (continued) Seismic Waves and Tsunamis What we Feel in an Earthquake
1/25/07 Chap. 5,8	Lecture Notes 4	Measuring Earthquakes: Locations and Magnitudes Quiz 1
1/30/07 Chap. 4,7	Lecture Notes 5	Measuring Earthquakes: Magnitudes Plate Tectonics and the Seismic Gap Hypothesis
2/01/07 Chap. 10-12	Lecture Notes 6	Earthquake Hazards and Prediction Quiz 2
2/06/07 Chap. 1	Lecture Notes 7 Lecture Notes 8	Earthquakes in Alaska The Great March 28, 1964 Alaska Earthquake
2/08/07		Earthquakes in Alaska (continued) Quiz 3
2/13/07 Chap. 6	Lecture Notes 9	Interior Structure of the Earth Exploring the Inside of the Earth
2/15/07 Chap. 6		Earth Structure Problems Seismic Exploration
2/20/07		Test for Part A (course and lab)

Note: Attendance will be taken in Lab sections and is mandatory. In general Lab exercises should be completed and turned in at the end of each lab. TA's will not accept labs from students not attending lab.

<http://www.giseis.alaska.edu/Seis/>
Alaska Earthquake Information Center

<http://www.odsn.de/odsn/services/paleomap/animation.html>
Plate Reconstructions

<http://wwwneic.cr.usgs.gov/neis/bulletin/bulletin.html>
Earthquake Locations (3 or 4 days)

http://www.iris.washington.edu/seismic/60_2040_1_8.html
Earthquake Locations (15 days)

<http://www.iris.washington.edu/GSN/MAP.html>
Map of Seismic Stations

<http://www.crystal.ucsb.edu/ics/understanding/elastic/rebound.html>
Elastic Rebound Animation

<http://www.gps.caltech.edu/~polet/recofd.html>
Seismogram of the day

<http://www.geophys.washington.edu/seismosurfing.html>
Many seismology links

<http://quake.geo.berkeley.edu/cnss/maps/cnss-map.html>
Seismicity maps

<http://www.whfreeman.com/>
Earthquakes by Bolt additional material