GEOL 108 - Crises of a Planet
Lab 4 - Volcanic Hazards and Igneous Rocks

Sept. 23 - 28, 2012
Part 1: The January 2010 Haiti earthquake was one of the most destructive in recent history. It measured 7.0 in magnitude. Use the seismogram and travel-time graph to fill in the following chart.
QUIZ 1 REVIEW

- **Part 3:** What geologic condition in Oregon and Washington indicates the possibility of a Sumatra-like tsunami hitting this coast? How is this related to the mountains and volcanoes onshore called the Cascade Range? (2 points)
LAB 4 - VOLCANIC HAZARDS AND IGNEOUS ROCKS

• Assess volcanic hazards in different settings

• Read topographic maps

• Recognize some igneous rocks and where they form
TOPOGRAPHIC MAPS

Scale: 1:250 000
Contour interval 200 ft
TOPOGRAPHIC MAPS

Scale: 1:24 000
Contour interval 10 ft

DAYTON

Sinclair College
BM 750

Memorial Bldg
Park

Courthouse

Patterson High Sch

Central Sch

City Safety Bldg

DAYS

Stivers High Sch

Holy Trinity Sch

Bomberger Park

MC LAIN

Ruskin Sch

Boys Club
TOPOGRAPHIC MAPS

- Topographic contour lines are lines of constant elevation
- Hachured lines indicate depressions
- Pay attention to contour interval
- Relief = elevation difference
VOLCANIC HAZARDS

Lahars, lava flows, pyroclastic flows, earthquakes, tephra/ash, landslides

Lahar after Pinatubo eruption

2010 Iceland eruption

www.boston.com http://www.marketoracle.co.uk/Article18692.html
VOLCANIC HAZARDS
VOLCANO TYPES AND ROCKS

- Stratovolcano, shield volcano, plug dome, cinder cone

[Images of volcanic types and rocks with captions and links to Wikipedia articles]