

# Volcano Seismology Course Outline

GEOS 671 F001, Spring 2012

Wednesday, 1:45-4:45 p.m., room 301M (record reading room)

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week    topic

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| 1     | History and organization of the subject; case histories:   |
| 2     | Instruments and networks; seismic velocities of volcanic materials<br>Redoubt 1989-90 case history         |
| 3     | Terminology and event classification<br>Spurr 1992 case history  |
| 4     | Swarms, magnitudes, energy, b-values, p-values<br>Usu 1977 case history                                    |
| 5     | High frequency (VT, A-type) earthquakes<br>Mount St. Helens 1980 case history                              |
| 6     | Low frequency (LP, B-type, VLP) earthquakes<br>Kilauea 1983 case history                                   |
| 7     | Volcanic tremor<br>Izu-Oshima 1986 case history  |
| 8     | Volcanic explosions (C-type)<br>Galeras 1988-1993 case history   |
| 9     | Attenuation and noise at volcanoes;<br>Long Valley 1980, 1983, 1989 case history                           |
| 10    | Large earthquakes near volcanoes; Cycles of volcanic activity<br>Pavlof 1973-1996 case history             |
| 11    | Forecasting of eruptions and assessment of eruptions in progress<br>Augustine 2006 case history            |
| 12    | Magma chambers, S-wave screening, and tomography<br>Pinatubo 1991 case history                             |
| 13    | Selected topics: probability, chaos, lightning, modelling, etc.<br>Montserrat 1995-continuing case history |