

2011 Teacher Training: Dynamics of Intra-plate Earthquake Project Agenda
310 Middlebush Hall
University of Missouri

July 12 (Tuesday) Focus: Organization and Structure of Earth

- 1:30 Welcome and introduction of project staff
- Francisco Gomez, PIRE project & Department of Geological Sciences
Lloyd Barrow, MU Science Education Center
Dane Schaffer, MU Science Education Center
- 1:45 Icebreaker
Pre-test
- 2:30 Science Notebooks—Lloyd Barrow
- 3:00 Structure of the earth—Dr. Milene Cormier, Geological Sciences
Behavior of waves in liquids and solids—models—Dr. Cormier
- 4:45 Creative dramatics activity— Lloyd Barrow & Dane Schaffer

July 13 (Wednesday, 9 AM to 5 PM) Focus: Plate Tectonics

- 9:00 Overview— Lloyd Barrow
- 9:15 Student conceptions about earthquakes—Michael Hubenthal, IRIS
- 9:30 History and theory of plate tectonics—Shelley Olds, UNAVCO
- 11:00 Break
- 11:15 Using visualization tools to explore data about earthquakes, volcanoes,
and plate motion relationships—Shelley Olds
- 12:15 Lunch
- 1:15 Seismic monitor and exploring East Africa seismicity—Michael Hubenthal
- 2:30 Break
- 2:45 Introduction to reading GPS time plots and how GPA works—Shelley Olds

- 3:30 Break
- 3:45 Investigating plate motions and deformations in California using GPS times series data—Shelley Olds

July 14 (Thursday, 9 AM to 5 PM) Focus: Seismology and earthquake scales

- 9:00 Overview— Lloyd Barrow
- 9:15 History of the seismograph and recording seismic waves—Michael Hubenthal
- 9:50 Faults
- 10:30 Break
- 10:45 Seismic waves—Michael Hubenthal
- 11:30 Models of plate movements— Lloyd Barrow
- 12:00 Lunch
- 1:00 Earthquake machine/stored energy—Michael Hubenthal
- 1:45 Walk-run activity—Michael Hubenthal
- 2:30 Break
- 2:45 Locating an earthquake with seismic data—Michael Hubenthal
- 4:00 Model of Richter scale—Lloyd Barrow
- 4:30 Meaning of various earthquake scale

July 15 (Friday, 9 AM to 5 PM) Focus: Plate boundary and intra-plate earthquakes

- 9:00 Overview—Lloyd Barrow
- 9:15 Episodic tremor and slip in the Pacific Northwest—Shelley Olds
- 10:30 Break

- 10:45 Integrating the earthquake catalog—Michael Hubenthal
- 11:30 Modeling intraplate earthquakes with booby-trap—Michael Hubenthal
- 12:00 Lunch
- 1:00 What's happening here—Shelley Olds
- 1:30 Professional earthquake resources—Michael Hubenthal and Shelley Olds
- 2:00 Break
- 2:15 Earthquakes and insurance
- 3:00 Building codes—public and homes—Drs. Sarah Orton and Brent Rosenblad, Department of Civil Engineering
- Retrofitting suggestions—Drs. Orton and Rosenblad

July 16 (Saturday, 9 AM to 3 PM) Focus: Intra-plate earthquakes in Midwest and China

- 9:00 Overview & preparation for field trip—Lloyd Barrow and Paco Gomez
- 9:30 Prehistoric earthquakes in the Midwest--Dr. Gomez
Theoretical explanations of intra-plate earthquakes
Liquefaction
- 10:30 Break
- 10: 45 TASA Graphics—Dane Shaffer
- 11:45 Pizza party
- 1:00 Research on China earthquakes—Savas Ceylan, graduate student, Department of Geological Sciences
- 3:00 Dismissal

July 17 (Sunday)

- Morning Check out of dorm

12:15 Depart on bus and spend the night in Sikeston, Missouri. Evening meal at Lambert's

July 18 (Monday)

Visit sites associated with the fault zone, including museum at New Madrid, Missouri.

Spend the night at Dyersburg, Tennessee.

July 19 (Monday)

Tour Reel Foot Lake area and impacted region of Kentucky. Target return to Columbia around 5 PM

July 20 (Tuesday, 9 AM to 2 PM) Focus: Professional Development

9:00 Overview—Lloyd Barrow

9:15 Debriefing about the field trip—Paco Gomez

10:15 Break

10:30 Conducting professional development session for building teachers—Lloyd Barrow

11:45 Lunch

1:15 Debriefing about project and future interactions—Lloyd Barrow & Dane Shaffer

2:00 Post-test