

## Cascadia EarthScope Earthquake and Tsunami Education Program (CEETEP)

Workshop for Teachers, Interpreters, and Emergency Management Educators  
August 12-15, 2013

**Guin Library Seminar Room**  
OSU Hatfield Marine Science Center, Newport, Oregon  
<http://ceetep.oregonstate.edu>

<b>Monday, Aug. 12 (Day 1)</b>		<b>Breakout Sessions/Activities</b>	
<b>Guin Library Seminar Room</b>		<b>Guin Library Seminar Room</b>	<b>HMSC Room 36</b>
<b>8:30</b>	<b>Coffee, tea, juice, snacks for those who arrive early</b>		
9:00	Introductions: CEETEP, EarthScope, Participants, Instructors (Bob Lillie)		
9:45	Beauty and the Beast: Plate Tectonics and Geological Hazards of the Pacific Northwest (Bob Lillie)		
<b>11:00</b>	<b>Break (Coffee, tea, juice, snacks)</b>		
11:15	Breakouts (according to Action Teams)	1A: Seismic Eruption Program <b>(Action Teams 1, 4, 6)</b>	1B: -- Earthquake Machine; Foam Faults; Plate Boundaries in the Pacific Northwest <b>(Action Teams 2, 3, 5)</b>
11:40	Breakouts (Change Rooms)	1A: Seismic Eruption Program <b>(Action Teams 2, 3, 5)</b>	1B: Earthquake Machine; Foam Faults; Plate Boundaries in the Pacific Northwest <b>(Action Teams 1, 4, 6)</b>
<b>Dining Hall</b>			
<b>12:00</b>	<b>Action Teams: Team Building (During Lunch)</b>	Break into six Action Teams of 4-6 participants. Each team will have at least 1 teacher, 1 interpreter, and 1 EM educator. Teams have been assigned in advance, with effort to have each team represent a community or portion of the Oregon Coast. Each team will also have a technical advisor (Bob Butler, Bob Lillie, Beth Pratt Sitaula, Nancee Hunter, Bonnie Magura, Roger Groom). Teams will present 10-minute interpretive programs on Day 4, and they will continue to work together on products for the March Share-a-Thon.	<u>Activity:</u> Tangible observations and intangible meanings. Each team will be given an object. Each member will discuss how they would present the object and the stories it has to tell to their audience (students; park/museum visitors; other members of the public). Potential objects: 1. Piece of tsunami dock 2. Basalt pillow 3. Tsunami evacuation sign 4. Seismometer 5. Photo of GPS Monument 6. Sketch of Native American object, such as a canoe from the year 1700

	<b>Guin Library Seminar Room</b>	<b>Guin Library Seminar Room</b>	<b>HMSC Room 36</b>
1:00	Basics of Earthquake and Tsunami Science and Hazards (Bob Butler)		
<b>2:45</b>	<b>Break (Coffee, tea, juice, snacks)</b>		
3:00	Breakouts (according to Action Teams)	2A: Pasta Quake; Seismic Slinky; Epicenter Triangulation <b>(Action Teams 1, 2, 3)</b>	2B: Relative Earthquake Hazards Maps; Build a Better Wall <b>(Action Teams 4, 5, 6)</b>
3:45	Breakouts (Change Rooms)	2A: Pasta Quake; Seismic Slinky; Epicenter Triangulation <b>(Action Teams 4, 5, 6)</b>	2B: Relative Earthquake Hazards Maps; Build a Better Wall <b>(Action Teams 1, 2, 3)</b>
4:30	Forms: Reimbursements; Stipends; Photo Permissions; etc.		
4:45	Reflection, Questions, Planning (Kip Ault, Sue Graves, Beth Pratt Sitaula)		
<b>5:30</b>	<b>Adjourn</b>		

<b>Tuesday, Aug. 13 (Day 2)</b>		<b>Field Trip Activities</b>	
<b>8:30</b>	<b>Coffee, tea, juice, snacks for those who arrive early</b>		
9:00	Depart Hatfield Marine Science Center for Field Trip (school bus)		
10:30	<b>Stop 1:</b> Salmon River (Brian Atwater; Bob Butler)	<u>Tsunami Sand Deposits</u> (Westwind will ferry us across the Salmon River)	<a href="http://www.westwind.org">http://www.westwind.org</a>
<b>12:30</b>	<b>Lunch on the bus while in transit</b>		
1:30	<b>Stop 2:</b> Beverly Beach State Park (Bob Lillie; Roger Groom)	<u>Beauty and the Beast</u>	Brainstorm about interpretive hikes and school field trips while walking the beach
3:15	<b>Stop 3:</b> Newport Airport (Ken Austin; Shelley Olds)	<u>GPS Station</u>	Visit component of EarthScope Plate Boundary Observatory (PBO)
3:45	Return to Hatfield Marine Science Center		
4:00	<b>Stop 4:</b> Walk from Hatfield Marine Science Center (Sue Graves; Beth Pratt-Sitaula)	<u>Tsunami Evacuation Route</u>	We'll walk the actual evacuation route from HMSC. Includes time to think about and discuss hazards, infrastructure, solutions.
4:45	Walk back to Hatfield Marine Science Center		
5:00	<b>Stop 5:</b> Hatfield Marine Science Center (Bill Hanshumaker; Shelley Olds)	<u>Interpreting Earthquake/Tsunami Science and Preparedness</u>	Tsunami Dock Exhibit; Wave Tanks; Active Earth Kiosk; UNAVCO Interpretive Exhibit
<b>5:30</b>	<b>Adjourn</b>		

<b>Wednesday, Aug. 14 (Day 3)</b>		<b>Breakout Sessions/Activities</b>	
	<b>Guin Library Seminar Room</b>	<b>Guin Library Seminar Room</b>	<b>HMSC Room 36</b>
<b>8:30</b>	<b>Coffee, tea, juice, snacks for those who arrive early</b>		
9:00	Cascadia Earthquakes and Tsunamis (Bob Butler)		
<b>10:30</b>	<b>Break (Coffee, tea, juice, snacks)</b>		
10:45	Breakouts (according to Action Teams)	3A: GPS Gumdrop; EarthScope Plate Boundary Observatory (PBO): Locked&Loading; Episodic Tremor and Slip (ETS); GPS Cards ( <b>Action Teams 1, 3, 5</b> )	3B: Cascadia Tsunami Geology; Investigating Factors Affecting Tsunami Inundation; Tsunami Inundation Maps ( <b>Action Teams 2, 4, 6</b> )
11:30	Breakouts (Change Rooms)	3A: GPS Gumdrop; EarthScope Plate Boundary Observatory (PBO): Locked&Loading; Episodic Tremor and Slip (ETS); GPS Cards ( <b>Action Teams 2, 4, 6</b> )	3B: Cascadia Tsunami Geology; Investigating Factors Affecting Tsunami Inundation; Tsunami Inundation Maps ( <b>Action Teams 1, 3, 5</b> )
<b>12:15</b>	<b>Lunch (Dining Hall)</b>		
1:00	UNAVCO Education and Outreach (Shelley Olds)		
1:30	Southern California Earthquake Center (SCEC) Education and Outreach (Bob deGroot)		
2:00	Native American Oral Histories (Beth Pratt Sitaula)		
<b>2:45</b>	<b>Break (Coffee, tea, juice, snacks)</b>		
3:00	Exchange of Pedagogies: Interpreting the "Beauty and the Beast" Story of the Oregon Coast (Bob Lillie)		
3:30	Action Teams: Interpretive Program Development	Groups continue to develop the 10-minute interpretive programs that they will present on Day 4	
4:30	Collect Forms (Reimbursements; Stipends; Photo Permissions; etc.)		
4:45	Discussion and reflection on interdisciplinary professional development approach (Kip Ault)		
<b>5:30</b>	<b>Adjourn</b>		

<b>Thursday, Aug. 15 (Day 4)</b>		<b>Breakout Sessions/Activities</b>	
	<b>Guin Library Seminar Room</b>	<b>Guin Library Seminar Room</b>	<b>HMSC Room 36</b>
<b>8:30</b>	<b>Coffee, tea, juice, snacks for those who arrive early</b>		
9:00	Emergency Management (Sue Graves)		
<b>10:30</b>	<b>Break (Coffee, tea, juice, snacks)</b>		
10:45	Breakouts (according to Action Teams)	4A: Hazard Inventory and Emergency Backpacks ( <b>Action Teams 2, 3, 4</b> )	4B: Vertical Evacuation from Tsunamis ( <b>Action Teams 1, 5, 6</b> )
11:30	Breakouts (Change Rooms)	4A: Hazard Inventory and Emergency Backpacks ( <b>Action Teams 1, 5, 6</b> )	4B: Vertical Evacuation from Tsunamis ( <b>Action Teams 2, 3, 4</b> )
<b>Dining Hall</b>			
<b>12:15</b>	<b>Lunch (Dining Hall)</b> - Sit by educator type (teachers; interpreters; EM educators). Tables will be marked for you	Sit by educator type (TEACHERS; INTERPRETERS; EMERGENCY MANAGEMENT EDUCATORS). Tables will be marked for you. (The external evaluator will hold two focus group meetings for the TEACHERS)	
1:00	Action Teams: Interpretive Program Presentation ( <b>Dining Hall</b> )	Each group presents their 10-minute Interpretive Programs. Discussion after each about content and efficacy	
<b>3:00</b>	<b>Break (Coffee, tea, juice, snacks)</b>		
3:15	Action Teams: Collaboration and Share-a-Thon Plans ( <b>Dining Hall</b> )	Collective discussion about the task, schedule, and logistics for each Action Team to develop their March 8, 2014 Share-a-Thon products	
4:15	Post-Workshop Assessment (Kip Ault) ( <b>Dining Hall</b> )	(There will also be focus groups for INTERPRETERS and EM EDUCATORS prior to doing the assessment)	
<b>5:30</b>	<b>Adjourn</b>		