

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

<http://ceetep.oregonstate.edu>

Workshop for Teachers, Interpreters, and Emergency Management Educators

October 9-12, 2015

Humboldt State University

Arcata, CA

### **Primary room: Goodwin Forum, Nelson Hall East**

Secondary rooms: Nelson Hall East Rm 106 & 113

<b>Friday, October 9 (Day 1)</b>	
Cascadia plate tectonics, earthquakes and tsunamis; Seismic and GPS monitoring: Earthquake and distant tsunami preparedness	
<b>8:30</b>	<b>Breakfast (Served in Nelson Hall East Rm 106)</b>
9:00	Introductions: CEETEP, EarthScope, Participants, Instructors (Beth Pratt-Sitaula, Bob DeGroot) <u>Please sit with your Action Team. Tables will be marked.</u>
<b>10:15</b>	<b>Break (Coffee, tea, juice, snacks served in Nelson Hall East Rm 106)</b>
10:30	Beauty and the Beast: Plate Tectonics and Geological Hazards of the Pacific Northwest (Bob Butler)
12:00	Thoughts/questions/reflection (Beth Pratt-Sitaula, Bob Butler)
<b>12:15</b>	<b>Lunch (Served in Nelson Hall East Rm 106)</b>
1:00	Basics of Earthquake and Tsunami Science and Hazards and Related Teaching Activities (Bob Butler, Roger Groom, Beth Pratt-Sitaula)
<b>3:15</b>	<b>Break (Coffee, tea, juice, snacks served in Nelson Hall East Rm 106)</b>
3:30	Surviving a Cascadia Subduction Zone Earthquake (Lori Dengler, Bob DeGroot)
4:30	Reflection, Questions, Implications (Facilitation Team)
5:10	Forms: Reimbursements; Stipends; Photo Permissions; Logistics for Day 2 Field Trip (Bob deGroot, Beth Pratt-Sitaula)
<b>5:30</b>	<b>Adjourn</b>

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<b>Saturday, October 10 (Day 2)</b>	<b>Field Trip Activities</b>	
<u>Field Trip:</u> Cascadia earthquake and tsunami geology; EarthScope GPS installation; Earthquake and tsunami emergency planning		
<b>7:30</b>	<b>Beakfast (Served in the <u>Van Matre Hall Foyer</u> - NOTE DIFFERENT BUILDING!)</b>	
8:00	Walk to HSU campus GPS station	
8:05	<b>Stop 1:</b> GPS station P058 (Adam Woolace, Jay Patton, Beth Pratt-Sitaula)	<u>GPS Station</u> - Visit component of EarthScope Plate Boundary Observatory (PBO) and discuss how movements of Earth's surface tell us about earthquake hazard.
8:45	Drive to Redwood National Park Information Center	
9:30	<b>Stop 2:</b> Redwood National Park Information Center (Vicki Ozaki)	<u>Native Peoples &amp; Park Preparedness</u> - Visit a interpretive center, learn about Native American oral history, and discuss park preparedness considerations.
10:15	Drive to Lagoon Creek	
10:45	<b>Stop 3:</b> Lagoon Creek (Lori Dengler, Jay Patton)	<u>Tsunami Geology</u> - Discuss paleotsunami stratigraphy, tools of paleoseismology, and factors in tsunami deposit preservation. See a local core with tsunami deposit.
11:15	Drive to lunch	
<b>11:45</b>	<b>Lunch: Crescent City Community Center</b>	
12:30	<b>Stop 4:</b> Evacuation Walk (Lori Dengler, Cindy Henderson)	<u>Tsunami Evacuation Route</u> - Includes time to think about and discuss hazards, infrastructure, and solutions. Experience of 1964 earthquake and how a Cascadia event would differ.
1:30	Drive to Crescent City Harbor	
1:45	<b>Stop 5:</b> Crescent City Harbor (Lori Dengler, Troy Nicolini)	<u>Harbor Tsunami Preparedness</u> - Learn about past and recent tsunamis in Crescent City, tsunami amplification, and the harbor retrofit.
2:15	Drive back to Battery Point	
2:30	<b>Stop 6:</b> Battery Point (Lori Dengler, Vicki Ozaki)	<u>Beauty and the Beast &amp; Interpreting hazard topics</u> - Discuss Cascadia fold & thrust belt, the Geologic Big Picture, and what happened in 1964 distant tsunami. Brainstorm about interpretive opportunities at parks and museums.
3:00	Drive back to HSU	
<b>4:30-5:00</b>	<b>Adjourn</b>	

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<b>Sunday, October 11 (Day 3)</b>	
Cascadia earthquake and tsunami science and activities; Local tsunami preparedness; Native American oral histories; Pedagogical exchange among educators; Action Team planning	
<b>8:30</b>	<b>Breakfast (Served in Nelson Hall East Rm 106)</b>
9:00	Cascadia Earthquakes and Tsunami and Related Teaching Activities (Bob Butler, Roger Groom, Beth Pratt-Sitaula) <u>Please sit with your Action Team. Tables will be marked</u>
<b>10:30</b>	<b>Break (Coffee, tea, juice, snacks served in Nelson Hall East Rm 106)</b>
10:45	Cascadia Earthquakes and Tsunami and Related Teaching Activities (Bob Butler, Roger Groom, Beth Pratt-Sitaula)
12:00	Thoughts/questions/reflection (Facilitation team)
<b>12:15</b>	<b>Lunch (Served in Nelson Hall East Rm 106)</b>
1:00	Tsunami: Are You Ready? (Troy Nicolini)
1:45	Native American Oral Histories (Vicki Ozaki)
2:30	<u>Birds-of-a-Feather Breakouts</u> : How do I relate earthquake/tsunami science and preparedness to my learners at my venue? ( <u>Interpreters</u> : Bob DeGroot & Vicki Ozaki; <u>EM Educators</u> : Beth Pratt-Sitaula & Troy Nicolini; <u>Teachers</u> : Bob Butler, Roger Groom)
<b>3:15</b>	<b>Break (Coffee, tea, juice, snacks Nelson Hall East Rm 106)</b>
3:30	<u>Science Storytelling through Interpretation</u> : CEETEP team presents example of a skit that educates on science and preparedness while having fun.
3:45	<u>Storytelling as a means for change</u> : Newly published elementary-level book on the Japan tsunami boat story (Lori Dengler)
4:00	<u>Exchange of Pedagogies: Working Together in Coastal Communities to Engage Students, Visitors and Residents on Earthquake and Tsunami Science and Preparedness</u> (Beth Pratt-Sitaula)
4:30	<u>Action Teams</u> : Teams work on Community Educational Project on earthquake and tsunami science and preparedness. They will present their project plan during Day 4 of this workshop, and the results of implementation at the March 5, 2016 Share-A-Thon in Brookings, OR.
<b>5:30</b>	<b>Adjourn</b>

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<b>Monday, October 12 (Day 4)</b>			
Community earthquake and tsunami preparedness; Action Team presentations and post-workshop action plans			
<b>8:30 Breakfast (Served in Nelson Hall East Rm 113)</b>			
9:00	Digital Resources (Beth Pratt-Sitaula, Bob DeGroot)		
9:55	Preparedness for Post-Event Personal and Community Survival (Dorie Lanni)		
<b>10:40 Break (Coffee, tea, juice, snacks served in Nelson Hall East Rm 113)</b>			
10:55	Break Out Sessions	<b>Goodwin Forum</b> Tsunami Vertical Evacuation Structures (Roger Groom) <b>Teachers</b>	<b>Room 106</b> Hazard Inventory (Beth Pratt-Sitaula, Dorie Lanni) <b>Interpreters &amp; EM Educators</b>
11:40	Switch between breakout sessions		
11:45	Break Out Sessions	<b>Goodwin Forum</b> Tsunami Vertical Evacuation Structures (Roger Groom) <b>Interpreters &amp; EM Educators</b>	<b>Room 106</b> Hazard Inventory (Beth Pratt-Sitaula, Dorie Lanni) <b>Teachers</b>
<b>12:30 Lunch (Served in Nelson Hall East Rm 113)</b>			
1:15	<u>Action Teams</u> : Final preparations for presentations and discussion about the task, schedule, and logistics for each Action Team to develop their March 5, 2016 Share-a-Thon products.		
2:30	<u>Action Teams</u> : Present their ideas for development of Community Educational Programs on earthquake/tsunami science and preparedness. 15 minutes total per group (10 minutes presentation; 5 minutes discussion). Groups are encouraged to model how they will present specific concepts in different educational settings.		
<b>3:45 Break (Coffee, tea, juice, snacks served in Nelson Hall East Rm 113)</b>			
4:00	Post-Workshop Assessment (Michael Coe, Beth Pratt-Sitaula). Focus groups will be held by educator type (teachers, interpreters, EM educators). When you are not in a focus group, you will be taking the post-workshop survey.		
<b>5:30 Adjourn</b>			