

# Workshops For Undergraduate Professors

## Bringing Ocean Observing Initiative (OOI) Data into Undergraduate Oceanography Courses

*Utilizing high volumes of data for research and education increases both opportunities and challenges to analyzing and synthesizing these data into scientific understanding. We are pleased to offer two workshops that explore the unprecedented opportunities to engage undergraduate learners in authentic data experiences using real-world data sets, models, and simulations from the OOI.*

**Who:** Undergraduate Professors teaching introductory level Oceanography courses are invited to participate. This workshop is for professors interested in assisting the OOI in developing teaching applications using OOI data. Our objective is to use online OOI data to teach oceanographic concepts as well as data orientation, interpretation, and synthesis skills.

**When:** **Chemistry and OOI Data Workshop – May 19-21, 2017**  
*This workshop will focus on OOI data sets that explore salinity, pH, and PCO<sub>2</sub>.*

**Geology and OOI Data Workshop – June 2-4, 2017**  
*This workshop will look at the resources (video and data assets) from the Axial Sea Mount.*

**Where:** Both Workshops will take place at the University Inn and Conference Center at Rutgers University, New Brunswick, NJ.

### What is expected of me at the workshop?

During the workshop, we are asking that each participating professor provide detailed feedback on the developed OOI activities, including their perceived utility and effectiveness for the classroom. In addition, each professor will be invited to teach the OOI activities in their class and implement a short student assessment to help us collect some initial information on the students' impression of the OOI activities.

**Workshop Application:** Each Professor will receive an \$800 stipend to support their participation in the workshop, which includes evaluation of OOI activities. Travel, meal and hotel accommodation expenses will also be covered by the National Science Foundation grant, separate from the stipend. Approximately 10 professors will be selected for each workshop.

**Please fill out an application:**  
<http://tinyurl.com/ooieducation>

**Or Contact Janice McDonnell, [mcdonnel@marine.rutgers.edu](mailto:mcdonnel@marine.rutgers.edu) for more information.**



**Workshop Background:** We are inviting you to help us evaluate a collection of new OOI education data examples developed by Rutgers University faculty and education staff. We have developed a series of five short (15-20 minutes) activities that utilized OOI data and/or OOI Education & Public Engagement Tools to augment teaching of Oceanography concepts. Workshop participants will explore ways to effectively teach with data, share effective practices and hopefully expand their understanding of effective pedagogy, and brainstorm ideas for how to integrate OOI data into Introduction to Oceanography courses. You can review our pilot 2016 workshop on Primary Productivity at:

<http://education.oceanobservatories.org/explorations/>

Our efforts are focused on using Dr. Al Trujillo's "Essentials of Oceanography" textbook as scope and sequence for the workshop. We will also work with Catherine Halversen from the University of California- Berkeley's Lawrence Hall of Science, to develop effective teaching strategies for using OOI data in teaching.

### **What is OOI?**

The Ocean Observatories Initiative (OOI) has constructed observational and computer infrastructure that provides sustained ocean measurements to study climate variability, ocean circulation, ecosystem dynamics, air-sea exchange, seafloor processes, and plate-scale geodynamics for the coming decades. This ocean observing system is advancing our ability to understand the natural world by accumulating large quantities of data to address complex oceanographic processes.

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