

MIT/Woods Hole Joint Program in Oceanography and Applied Ocean Science and Engineering

The Joint Program of the Woods Hole Oceanographic Institution (WHOI) and the Massachusetts Institute of Technology offers advanced degrees in oceanography and applied ocean science and engineering. Graduate study encompasses virtually all of the basic sciences as they apply to the marine environment: physics, chemistry, geology, geophysics, and biology. Students who choose applied ocean science and engineering may concentrate in the major fields (civil, environmental, mechanical/ocean, and electrical engineering). More than 170 scientists (faculty) from the two institutions participate in the joint program. There are currently 129 students enrolled in the five areas of study offered: biological, chemical, or physical oceanography; marine geology and geophysics; and oceanographic engineering.

Since all MIT faculty involved in the joint program are members of an academic department, their individual accomplishments and awards are reported through those departments. These include Civil and Environmental Engineering, Mechanical Engineering, Electrical Engineering and Computer Science, Biology, and Earth, Atmospheric, and Planetary Sciences.

Design and Development of “Oceans@MIT” Website

Oceans@MIT is a new interdisciplinary initiative, intended to bring together a wide and diverse group of faculty, lecturers, research staff, and students at both MIT and WHOI dedicated to ocean-related research and education. The goal is to address vital questions about the future of the Earth’s oceans.

MIT faculty involved in this effort are members of MIT’s departments of Civil and Environmental Engineering, Mechanical Engineering, Biology, Sloan School of Management, and Earth, Atmospheric and Planetary Sciences, as well as the MIT Sea Grant College Program and the MIT Energy Initiative (MITEI). Staff and scientists from WHOI will collaborate significantly in oceanographic research and the MIT/WHOI Joint Program remains the principal education component of the project.

Some of the major problems addressed by participants will be:

- The relationship between oceans and climate
- The dynamics of the coastal oceans, examining the world’s fisheries and diverse ecosystems
- Life in the oceans
- Ocean exploration, especially recent advances made in robotics and undersea measurements
- Ocean science and policy, including drafting of laws and education of the public and private sectors in maintaining and supporting good ocean practices

The website is expected to be launched by mid-August 2012.

Meeting to Introduce New MIT and WHOI Faculty

This past year has been spent discussing the implications of the executive summary on the status and future of the MIT-WHOI Joint Program, as outlined in the joint program's strategic plan. Meetings among groups of faculty produced many interesting ideas and suggestions for improving communication and collaboration between faculty at MIT and at WHOI.

As a result of these discussions, a joint MIT/WHOI faculty meeting was held at WHOI on September 27, with presentations from faculty from both institutions, followed by tours, lunch, and a town hall-style meeting. Seven speakers gave presentations at Redfield Auditorium; this was followed by lunch overlooking Eel Pond. Both junior and senior faculty joined in tours of WHOI facilities.

The main afternoon event was a second, well-attended "town hall" meeting to discuss how to strengthen ties and encourage interdisciplinary research. The discussion was moderated by WHOI dean Jim Yoder.

A dinner was also held the evening before the event, giving participants the opportunity to meet each other socially, and MIT faculty were offered overnight accommodations if they chose to attend the dinner. This meeting was such a success that it was agreed that the program should schedule such an event at least once each year.

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