



COLLEGE OF MARINE STUDIES

Ranked among the top ten marine colleges in the nation, the Graduate College of Marine Studies (CMS) strives to advance the knowledge, use, and conservation of ocean and coastal environments through a program of excellence in research, teaching, and service. CMS maintains state-of-the-art facilities on the University's main campus in Newark and on the 387-acre Hugh R. Sharp Campus in Lewes, at the mouth of Delaware Bay. Here, students pursue master's and doctoral degrees in applied ocean science, marine biology-biochemistry, marine policy, and oceanography.

From satellite oceanography to marine molecular biology, CMS faculty and students conduct studies around the globe and frequently participate in international research expeditions. The 120-foot research vessel *Cape Henlopen* and several smaller vessels support field work in nearby Delaware and Chesapeake bays and coastal Atlantic waters. For more information on CMS research projects, visit the CMS Web site at <http://www.ocean.udel.edu/>.

Like many other marine institutions around the country, CMS confers only master's and doctoral degrees. However, CMS offers courses and special programs for undergraduates to help them choose and prepare for graduate work in marine studies.

Preparing for Graduate School. Graduate programs in marine studies seek students with diverse backgrounds in math, physics, chemistry, biology, geology, computer science, engineering, or social sciences. Undergraduates in all majors should select electives related to the ocean whenever possible. CMS offers an Introduction to Ocean Sciences course to junior and senior science and engineering majors. This course provides an introduction to the ocean world including geography and geophysics; the chemistry of water and sediments; the physics of ocean circulation, waves, and tides; descriptions of oceanic and nearshore environments; and the biology of the seas. The course takes a problem-solving approach requiring introductory calculus, chemistry, and physics.

Advanced students may enroll in entry-level graduate courses in marine studies with the instructor's permission. While some classes are taught at the CMS research complex in Lewes, 90 miles south of the main campus, interactive television linking the two sites allows Newark-based students to attend without commuting. Other departments, including biology, geology, and civil engineering, also offer marine-related courses.

CMS also sponsors the following programs for upper-division students that immerse them in a graduate-student atmosphere and introduce them to the work of marine scientists.

Marine Sciences Summer Internship. Each summer, CMS awards internships to approximately 10 science, engineering, and mathematics undergraduates from around the country, allowing them to conduct 10 weeks of guided research at the CMS research station in Lewes. Interns work on a research project in chemical, physical, or biological oceanography, marine biology, marine geology, or marine biochemistry; participate in a research cruise aboard the R/V *Cape Henlopen*; and present their results in oral and written reports at the end of the summer. They also attend weekly seminars for which they receive one credit. Student support, provided by grants from the National Science Foundation's Research Experiences for Undergraduates Office, includes a \$2,500 stipend, dormitory fee, tuition for the one-credit course, and travel assistance.

Applicants must be citizens or permanent residents of the United States and its possessions and must be enrolled in a degree program leading to a bachelor's degree. Students between their junior and senior years receive preference. The deadline for applications is usually March 1, with notification of selection for the program occurring by April each year.

For more information, contact:

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Semester-in-Residence. This program was developed especially for juniors and seniors at the University of Delaware. Each year up to 12 students with a minimum 3.0 grade point average are selected to spend a semester at the Lewes campus in an intensive exploration of marine science. Housing is available at the student housing complex in Lewes. The experience includes graduate-level course work and seminars as well as an individual research project guided by a faculty adviser. The nature of this program necessitates that interested students begin planning fairly early in their college career to incorporate this special semester into their curriculum, but it can provide an invaluable, advance look at the graduate school experience.

For more information, contact:

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Marine Policy Internships. Qualified undergraduates may serve as interns in the Center for the Study of Marine Policy and work on a range of research and policy analysis activities together with graduate students, faculty, and national and international agencies. The center conducts an active program of research at international, national, and regional scales; provides policy advice to a range of governmental and nongovernmental entities; and organizes conferences, publications, international exchanges, and a visitors program. Major emphases of the center include implementation of the Earth Summit agreements related to oceans and coasts (Agenda 21, Climate Change, and Biological Diversity conventions), the theory and practice of integrated coastal management, the management of coastal ecosystem health, and marine biotechnology. Center activities are carried out by co-directors Biliana Cicin-Sain and Robert W. Knecht in association with other University of Delaware faculty, international associates, scholars at other universities, practitioners in the field, postdoctoral fellows, and research assistants.

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