

# COLLEGE OF MARINE STUDIES

# Graduate Programs

- Marine Policy (M.M.P.)
- Marine Studies (M.S., Ph.D.)
- Oceanography (Ph.D.)

Telephone: Newark (302) 831-2841, Lewes (302) 645-4212

The goal of the college is to educate scholars who will provide intellectual leadership in the areas of physical ocean science and engineering, marine biology-biochemistry, oceanography, and marine policy. Graduates of the college are expected to understand the complex interactions of these areas in real world situations, in addition to mastering advanced work in the area of their speciality.

Students in the marine biology-biochemistry program may approach the field from organismic, ecological, biochemical and molecular perspectives. In marine policy, students analyze issues relating to the legal, political, and economic aspects of the coastal zone, the seabed, and the ocean.

Students in the oceanography program may specialize in biological, chemical, geological, or physical oceanography. Students in the physical ocean science and engineering program use physics for the advanced study of contemporary research topics in coastal physical oceanography, coastal engineering, ocean acoustics, nearshore processes, environmental fluid dynamics, and estuarine dynamics.

Each student's program may be individually planned to match the specific interests of the student while meeting the college's requirements. An advisory committee is established to oversee the student's research and academic program. Students engage in serious research and are expected to demonstrate through the thesis or dissertation an ability to identify, define, and solve problems in their area of interest. The master's program normally takes two years while the doctoral program may take an additional two or three years. Financial support in the form of a graduate assistantship or college fellowship is often available to qualified students.

The college has two locations: Robinson Hall at Newark on the main campus of the University and the Hugh R. Sharp Campus at the coastal city of Lewes at the mouth of Delaware Bay. During the academic year, courses are taught at both sites. Students may live at either location depending on convenience, the nature of their research, and the location of their adviser.

#### **RESEARCH FACILITIES**

The Graduate College of Marine Studies maintains facilities on the University of Delaware's main campus in Newark and the 387-acre Hugh R. Sharp Campus in Lewes. Though located approximately 90 miles apart, the two campuses are linked by two-way interactive television, allowing faculty and students to participate in classes and meetings from either location.

On the main campus, Robinson Hall is the college's administrative base and accommodates about 40% of our faculty and students. Robinson Hall houses three of the college's four research centers: the Center for Remote Sensing, the Center for Colloidal Science, and the Center for the Study of Marine Policy. Also on the main campus, research in marine chemistry and biochemistry research takes place in state-of-the-art "clean" labs available in the Lammot du Pont Chemistry, Biochemistry, and Marine Studies Laboratory.

In Lewes, the college's five-building complex provides all the amenities for a thriving marine research and teaching program, including offices, research and teaching laboratories, classrooms, computer facilities, and the College of Marine Studies library. Cannon and Smith laboratories are equipped with recirculating seawater systems and controlled-environment rooms used to hold living organisms for study. Cannon Lab also includes a geochemical clean lab. Smith Lab includes 10,000 square feet of greenhouse space and houses the Halophyte Biotechnology Center.

Two smaller buildings house specialized research facilities. The Air-Sea Interaction Laboratory, situated in nearby Cape Henlopen State Park, shelters the 42-meter Wind-Wave-Current Research Facility, one of the largest and most sophisticated wave tanks in the world. The Pollution Ecology Laboratory is equipped for the study of trace metals in aquatic environments and in precipitation.

The Adrian S. Hooper Marine Operations Building and harbor support the seagoing research activities of the college. The harbor is the home port of the 120-foot R/V *Cape Henlopen*, a member of the University-National Oceanographic Laboratory System fleet. Several smaller vessels are also available for scientific exploration and sampling in nearby Delaware Bay and coastal Atlantic waters.

### **REQUIREMENTS FOR ADMISSION**

Prospective students must submit:

- General (Aptitude) Test and Subject (Advanced) Test for Marine Biology-Biochemistry Program (in area of undergraduate major),
- A letter of intent, stating specific interests and objectives for seeking graduate study
- Other requirements as listed in the "Graduate Admissions" chapter in this catalog.

Early application for admission is advised. Successful applicants typically have combined verbal and quantitative GRE scores above 1200 and grade-point averages above  $3.0~(4.0=\mathrm{A})$ . After applying, applicants are advised to check with the academic affairs coordinator to ensure that all necessary documents have reached the college.

## **REQUIREMENTS FOR THE DEGREES**

Each program in the college has its own requirements. All students in the master's program are required to complete 30 graduate credits (39 for marine policy). An introductory course in a CMS program outside the student's area of concentration is required. All students must write a thesis. Exceptional students may be permitted to bypass the master's degree and work directly toward the Ph.D. Requirements for the Ph.D. degree are similar to those for the master's degree, but are more intensive. Written and oral qualifying examinations are required before students are admitted to candidacy for the Ph.D. degree. Also refer to: http://www.ocean.udel.edu/gradinfo/Graduate\_Information.html.