STATE UNIVERSITY OF NEW YORK AT STONY BROOK

Marine Sciences Research Center
Programs in Marine Environmental Sciences and Coastal Oceanography

Programs of Study

The master's degree program in marine environmental sciences is designed to prepare students for effective careers in research, management, environmental protection, and resource development of the coastal zone. It consists of a rigorous interdisciplinary curriculum. Students must successfully complete an approved course of study of 30 graduate credits, including core courses in biological, chemical, geological, and physical oceanography. A research thesis is required. All requirements for the M.S. must be completed within three years of admission.

The doctoral program in coastal oceanography prepares students to formulate and attack coastal oceanographic problems effectively on theoretical and applied levels through interdisciplinary training in biological, chemical, geological, and physical oceanography. A student's entire program is carefully tailored to his or her needs. At the core of each program is an apprenticeship to one or several key faculty members. Students advance to candidacy after completion of course work, a departmental examination, demonstration of proficiency in a foreign language, participation in oceanographic research cruises, one year in residence, one semester of teaching experience, and an oral qualifying examination. All requirements for the Ph.D. must be satisfied within five years after completing 24 hours of graduate courses in the Stony Brook department or program in which the student is to receive the degree.

The faculty of the Center conducts a broad range of basic and applied research in all facets of coastal oceanography throughout much of the world. The focus of the programs is on the coastal ocean, and support comes from many federal and state agencies as well as from private foundations. Students at both the master's and doctoral degree levels are active participants in all phases of the Center's research.

Research Facilities

The Marine Sciences Research Center (MSRC) has 7,969 square meters of laboratory and office space that is well equipped for most analyses and includes excellent computing facilities. The equipment and facilities on campus, at other SUNY units, and at Brookhaven National Laboratory and Cold Spring Harbor Laboratory are available by arrangement. The Center has a laboratory with aquarium facilities at the Flax Pond salt marsh, approximately 7 kilometers from campus. The 1-square-kilometer salt marsh is managed by the Center. The Center operates a 20-meter research vessel, the R/V *Onrust*, outfitted for oceanographic sampling and also maintains a fleet of small boats.

Financial Aid

Various forms of financial aid are available through the Center. Graduate teaching and research assistantships carry stipends of up to $9204 for the academic year 1995–96 and $3885 for the summer. Sea Grant traineeships provide $13,000 for the calendar year 1995. Inter-Campus Exchange fellowships carry a variable stipend, and Graduate Council fellowships provide $10,000 per academic year in 1995–96. All assistantships and fellowships carry a waiver of tuition. Work-study programs are available through the Financial Aids Office. Federal and state loans are also available.

Cost of Study

For 1995–96, New York State residents pay tuition of $2000 per semester full-time or $168 per credit part-time. Tuition for out-of-state residents is $3716 per semester full-time or $308 per credit part-time. A University fee of $12.50 per semester and an activity fee of $18.50 per semester are also charged.

Living and Housing Costs

In 1995–96, living costs excluding tuition and fees total approximately $11,375 for twelve months if the student is single and lives on campus. Furnished apartments for graduate students are available. Apartments have one, two, or three bedrooms; each bedroom can accommodate 2 persons. Costs range from $372 to $816 per month per apartment (depending on the number of occupants per apartment) and include all utilities except telephone. Costs are subject to change without notice. Rental is for twelve months. There are optional board plans available on campus. A number of private homes, rooms, and apartments are also available off campus at a wide range of rents.

Student Group

There are 70 students enrolled in the M.S. program and 74 in the Ph.D. program. Students come from all parts of the United States and throughout the world. The student body includes 51 women and 52 married students. Nearly all of the full-time students receive financial aid.

To date, 345 students have received M.S. degrees and 68 have received Ph.D. degrees. Virtually all are employed in oceanographic research institutions; various federal, state, and local environmental protection and management units; and industry. Employment prospects continue to look favorable.

Location

Stony Brook is located 96 kilometers east of Manhattan on the wooded North Shore of Long Island, within a few kilometers of picturesque villages, harbors, and beaches. The cultural, scientific, and commercial resources of New York City are readily accessible by road and rail.

The Center

The Marine Sciences Research Center is the oceanographic research center of the State University of New York. Situated on Long Island, it is ideally located for studies of diverse coastal environments, including estuaries, lagoons, salt marshes, barrier islands, and continental shelf waters. The Center offers the only SUNY graduate degree programs in marine environmental sciences and coastal oceanography.

Two features that distinguish the Marine Sciences Research Center from other leading oceanographic institutions are its clear focus on the coastal ocean and the effectiveness with which the Center's staff members have translated the results of their research and that of others into forms directly applicable to the resolution of important societal problems.

Applying

Admission requires a B.S. in basic science with introductory courses in other sciences (biology, chemistry, physics, and geology) and mathematics through calculus (B average). The General Test of the Graduate Record Examinations is required. Application deadlines are March 1 for the fall and October 1 for the spring. Application materials are available from the Graduate Programs Office.

The State University of New York at Stony Brook is an Equal Opportunity/Affirmative Action educator and employer.

Correspondence and Information

Graduate Programs Office
Marine Sciences Research Center
State University of New York at Stony Brook
Stony Brook, New York 11794-5000
Telephone: 516-632-8681

THE FACULTY AND THEIR RESEARCH

Josephine Y. Aller, Research Associate Professor; Ph.D., USC, 1975. Marine benthic ecology, invertebrate zoology, marine microbiology, biogeochemistry.
Robert C. Aller, Professor; Ph.D., Yale, 1977. Marine geochemistry, marine animal–sediment relations.
Henry J. Bokuniewicz, Professor and Associate Dean for Educational Programs; Ph.D., Yale, 1976. Nearshore transport processes, coastal sedimentation, marine geophysics.
Malcolm J. Bowman, Professor; Ph.D., Saskatchewan, 1971. Coastal ocean and estuarine dynamics.
Vincent T. Breslin, Assistant Professor; Ph.D., FIT, 1986. Stabilized waste interaction with the marine environment, metal leachability from particulate and stabilized combustion residues, trace metal geochemistry.
V. Monica Bricelj, Associate Professor; Ph.D., SUNY at Stony Brook, 1984. Molluscan physiological ecology, benthic ecology.
Bruce J. Brownawell, Assistant Professor; Ph.D., MIT/Woods Hole, 1986. Biogeochemistry of organic pollutants in seawater and groundwater.
Edward J. Carpenter, Professor; Ph.D., North Carolina State, 1969. Nitrogen cycling among plankton and ambient seawater, phytoplankton and zooplankton ecology.
Harry H. Carter, Professor Emeritus; M.S., California, San Diego (Scripps), 1948. Estuarine and coastal dynamics, turbulent diffusion.
Robert M. Cerrato, Associate Professor; Ph.D., Yale, 1980. Benthic ecology, population and community dynamics.
Andre Y. Chistoserdov, Assistant Professor; Ph.D., Institute of Genetics and Selection of Industrial Microorganisms (Moscow), 1985. Marine microbiology, C1 compounds cycling, molecular genetics of methylotrophic bacteria, marine biotechnology and bioremediation.
J. Kirk Cochran, Professor and Acting Dean and Director; Ph.D., Yale, 1979. Marine geochemistry, use of radionuclides as geochemical tracers, diagenesis of marine sediments.
Daniel C. Conley, Assistant Professor; Ph.D., California, San Diego (Scripps), 1993. Sediment transport, wave boundary layers, nearshore processes.
David O. Conover, Professor; Ph.D., Massachusetts, 1981. Ecology of fish, fisheries biology.
Alessandra Conversi, Research Assistant Professor; Ph.D., Scripps, 1992. Long time series, climate-plankton interactions, water quality monitoring.
Elizabeth M. Cosper, Research Associate Professor; Ph.D., CUNY, City College, 1981. Phytoplankton physiology and ecology, resistance of microalgae to pollutants.
Robert K. Cowen, Associate Professor; Ph.D., California, San Diego (Scripps), 1985. Fishery oceanography, nearshore fish populations, fish ecology.
Nicholas S. Fisher, Professor; Ph.D., SUNY at Stony Brook, 1974. Marine phytoplankton physiology and ecology, biochemistry of metals, marine pollution.
Roger D. Flood, Associate Professor; Ph.D., MIT, 1978. Marine geology, sediment dynamics, continental margin sedimentation.
Valrie A. Gerard, Associate Professor; Ph.D., California, Santa Cruz, 1976. Marine macrophyte ecology and physiology.
William H. Greene, Clinical Associate Professor of Medicine (Health Sciences Center at Stony Brook with joint appointment in MSRC); M.D., SUNY Downstate Medical Center, 1968. Infection control.
Herbert Herman, Professor (Department of Engineering and Applied Sciences with joint appointment in MSRC); Ph.D., Northwestern, 1961. Ocean engineering, undersea vehicles, marine materials.
Lee E. Koppelman, Professor; Ph.D., Cornell, 1970. Coastal zone management, planning, and policy studies.
Cindy Lee, Professor; Ph.D., California, San Diego (Scripps), 1975. Marine geochemistry of organic compounds, organic and inorganic nitrogen-cycle biochemistry.
Jeffrey S. Levinton, Professor (Chairperson, Department of Ecology and Evolution, with joint appointment in MSRC); Ph.D., Yale, 1971. Marine benthic ecology, population genetics of bivalve mollusks, paleoecology.
Darcy J. Lonsdale, Associate Professor; Ph.D., Maryland, 1979. Zooplankton ecology, with special interest in physiology; life history studies.
Glenn R. Lopez, Professor; Ph.D., SUNY at Stony Brook, 1976. Benthic ecology, animal-sediment interactions.
Kamazima Lwiza, Assistant Professor; Ph.D., North Wales, 1991. Coastal ocean circulation, tides and tidal fronts, mixing.
James E. Mackin, Associate Professor; Ph.D., Chicago, 1983. Geochemistry of suspended sediment/solution interactions.
John E. Mak, Assistant Professor; Ph.D., Scripps, 1992. Isotope geochemistry, biosphere-atmosphere interactions, atmospheric chemistry.
John L. McHugh, Professor Emeritus; Ph.D., UCLA, 1950. Fishery management, fishery oceanography; whales and whaling.
William J. Meyers, Associate Professor (Department of Earth and Space Sciences with joint appointment in MSRC); Ph.D., Rice, 1973. Carbonates, sedimentology.
Steven Morgan, Assistant Professor; Ph.D., Maryland College Park, 1986. Larval ecology and evolution of life histories.
Charles Nittrouer, Professor; Ph.D., Washington (Seattle), 1978. Geological oceanography, continental margin sedimentation.
Akira Okubo, Professor; Ph.D., Johns Hopkins, 1963. Oceanic diffusion, animal dispersal, mathematical ecology.
Hartmut Peters, Assistant Professor; Ph.D., Kiel (Germany), 1981. Turbulence and mixing, internal waves, equatorial circulation, coastal and estuarine circulation.
Donald W. Pritchard, Professor Emeritus; Ph.D., Scripps, 1951. Estuarine and coastal dynamics, coastal zone management.
Sheldon Reaven, Associate Professor (Department of Technology and Society with joint appointment in MSRC); Ph.D., Berkeley, 1975. Energy and environmental problems and issues, especially waste management.
Frank J. Roethel, Lecturer; Ph.D., SUNY at Stony Brook, 1982. Environmental chemistry, behavior of coal waste in the environment; solution chemistry.
Sergio A. Sanudo-Wilhelmy, Assistant Professor; Ph.D., California, Santa Cruz, 1993. Chemical oceanography, coastal geochemistry, metal cycling in aquatic systems.
J. R. Schubel, Professor Emeritus; Ph.D., Johns Hopkins, 1968. Coastal sedimentation, suspended sediment transport, coastal zone management.
Mary I. Scranton, Professor; Ph.D., MIT, 1977. Marine geochemistry, biological-chemical interactions in seawater.
Lawrence B. Slobodkin, Professor (Department of Ecology and Evolution with joint appointment in MSRC); Ph.D., Yale, 1951. Theoretical ecology, marine ecology.
R. Lawrence Swanson, Adjunct Professor and Director of the Waste Management Institute; Ph.D., Oregon State, 1971. Recycling and reuse of waste materials, waste management, waste disposal.
Gordon Taylor, Assistant Professor; Ph.D., USC, 1983. Marine microbial ecology and biogeochemistry.
Dong Ping Wang, Professor; Ph.D., Miami (Florida), 1975. Coastal ocean dynamics.
Peter K. Weyl, Professor Emeritus; Ph.D., Chicago, 1953. Coastal zone planning, physical oceanography, paleoceanography.
Robert E. Wilson, Associate Professor; Ph.D., Johns Hopkins, 1973. Estuarine and coastal ocean dynamics.
Peter M. J. Woodhead, Research Professor; B.S., Durham (England), 1953. Behavior and physiology of fish, coral reef ecology, ocean energy conversion systems.
Charles F. Wurster, Professor Emeritus; Ph.D., Stanford, 1957. Effects of chlorinated hydrocarbons on phytoplankton communities.
Jeannette Yen, Associate Professor; Ph.D., Washington (Seattle), 1982. Marine zooplankton ecology, predator-prey interactions, sensory perception and lipid metabolism of copepods.