

## FACULTY

- Aller, Josephine Y., Ph.D., USC, 1975. Marine benthic ecology, invertebrate zoology, marine microbiology, biogeochemistry.
- Aller, Robert C., Ph.D., Yale, 1977. Marine geochemistry, marine animal-sediment relations.
- Bokuniewicz, Henry J., Ph.D., Yale, 1976. Near-shore transport processes; coastal sedimentation; marine geophysics.
- Bowman, Malcolm J., Ph.D., Saskatchewan, 1971. Coastal dynamics; oceanic fronts, productivity and physical processes.
- Bricelj, V. Monica, Ph.D., SUNY Stony Brook, 1984. Molluscan physiological ecology, benthic ecology.
- Brinkhuis, Boudewijn H., Ph.D., SUNY, Stony Brook, 1975. Primary productivity of phytoplankton and seaweeds; biogeochemistry of trace metals in marine plants; physiological ecology of marine organisms.
- Carpenter, Edward J., Ph.D., North Carolina, 1969. Nitrogen cycling among plankton and ambient seawater; phyto- and zooplankton ecology; effects of toxic chemicals and electric power stations on coastal plankton.
- Carter, Harry H., Emeritus, M.S., Scripps, 1948. Estuarine and coastal dynamics, turbulent diffusion.
- Cerrato, Robert M., Ph.D., Yale, 1980. Benthic ecology; recolonization; community dynamics.
- Cochran, J. Kirk, Ph.D., Yale, 1980. Marine geochemistry; use of radionuclides as geochemical tracers; diagenesis of marine sediments.
- Conover, David O., Ph.D., Massachusetts, 1981. Ecology of fishes, fisheries biology.
- Cosper, Elizabeth M., Ph.D., CUNY, 1981. Phytoplankton physiology and ecology; resistance of microalgae to pollutants.
- Cowen, Robert K., Ph.D., Scripps, 1985. Fishery oceanography, nearshore fish populations, fish ecology.
- Fisher, Nicholas, Ph.D., SUNY Stony Brook, 1974. Marine phytoplankton physiology and ecology; biochemistry of metals; marine pollution.
- Flood, Roger D., Ph.D., WHOI/MIT, 1978. Marine geology; sediment dynamics, continental margin sedimentation.
- Fuhrman, Jed A., Ph.D., Scripps, 1981. Marine microbial ecology; bacterioplankton production.
- Gerard, Valrie A., Ph.D., California, Santa Cruz, 1976. Marine macrophyte ecology and physiology; marine biomass as an energy.
- <sup>1</sup> Herman, Herbert, Ph.D., Northwestern, 1961. Ocean engineering; undersea vehicles; marine materials.
- Horrigan, Sarah G., Ph.D., California, San Diego, 1982. Marine microbial ecology; nutrient cycling.
- <sup>2</sup> Koehn, Richard K., Ph.D., Arizona, 1967. Evolutionary genetics of natural populations and evolution of physiological variation, using marine bivalves and mice.
- Koppelman, Lee E., D.P.A., NYU, 1970. Coastal zone management; planning; policy studies.
- Lonsdale, Darcy J., Ph.D., University of Maryland, 1979. Zooplankton ecology with special interest in physiology; life history studies.
- Lopez, Glenn R., Ph.D., SUNY, Stony Brook, 1976. Marine benthic ecology; competition and succession in soft-bottom benthos; biology of deposit feeding invertebrates.
- Mackin, James E., Ph.D., Chicago, 1983. Geochemistry of suspended sediment / solution interactions.
- McHugh, John L., Emeritus, Ph.D., UCLA, 1950. Fishery management; fishery oceanography; domestic and international ocean affairs; whales and whaling.
- <sup>3</sup> Meyers, William J., Ph.D., Rice, 1973. Carbonates; sedimentology.
- Nittrover, Charles A., Ph.D., Washington (Seattle), 1978. Geological oceanography, continental margin sedimentation.
- Okubo, Akira, Ph.D., Johns Hopkins, 1963. Oceanic diffusion; animal dispersal; mathematical ecology.
- Partch, Eric N., Ph.D., Washington, 1981. Estuarine dynamics and mixing processes; oceanic dispersion.
- Pritchard, Donald W., Emeritus, Ph.D., Scripps, 1951. Estuarine and coastal dynamics; coastal zone management.
- <sup>4</sup> Reaven, Sheldon, Ph.D., California, Berkeley, 1975. Energy and environmental problems and issues especially waste management.
- Rine, James, M., Ph.D., Miami, 1980. Marine geology, nearshore and continental shelf sedimentation.
- Roethel, Frank J., Ph.D., SUNY, Stony Brook, 1982. Environmental chemistry; behavior of coal waste in the environment; solution chemistry.
- Schubel, Jerry R., Ph.D., Johns Hopkins, 1968. Director. Coastal sedimentation; suspended sediment transport; interactions of organisms and sediment; coastal zone management.
- Scranton, Mary I., Ph.D., MIT/WHOI, 1977. Geochemical oceanography.
- Siddall, Scott E., Ph.D., Miami, 1980. Biology and ecology of molluscan larvae; shellfish mariculture.
- <sup>2</sup> Slobodkin, Laurence B., Ph.D., Yale, 1951. Evolutionary strategy with reference to species diversity; timing of responses, self image; adaptive mechanisms of Hydra.
- Swanson, R. Lawrence, Ph.D., Oregon State, 1971. Recycling and reuse of waste materials; waste management; waste disposal.
- Vieira, Mario E.C., Ph.D., Johns Hopkins, 1983. Estuarine and coastal waters circulation and dynamics.
- Wang, Dong Ping, Ph.D., Miami, 1975. Coastal ocean dynamics.
- <sup>1</sup> Wang, Franklin F.Y., Ph.D., Illinois, 1956. Ocean engineering; ocean structural; energy.
- Weyl, Peter K., Ph.D., Chicago, 1953. Coastal zone planning; physical oceanography.
- Wilson, Robert E., Ph.D., Johns Hopkins, 1973. Estuarine and coastal ocean dynamics.
- Woodhead, Peter M.J., B.S., Durham, UK, 1953. Physiology and behavior of fish; coral reef ecology; ocean energy conversion systems.
- Wurster, Charles F., Ph.D., Stanford, 1957. Effects of chlorinated hydrocarbons on plankton communities.
- Yen, Jeannette, Ph.D., U. Washington, 1982. Marine zooplankton ecology, predator-prey interactions, sensory perception and lipid metabolism of copepods.

<sup>1</sup> Joint appointment with Department of Materials Sciences.

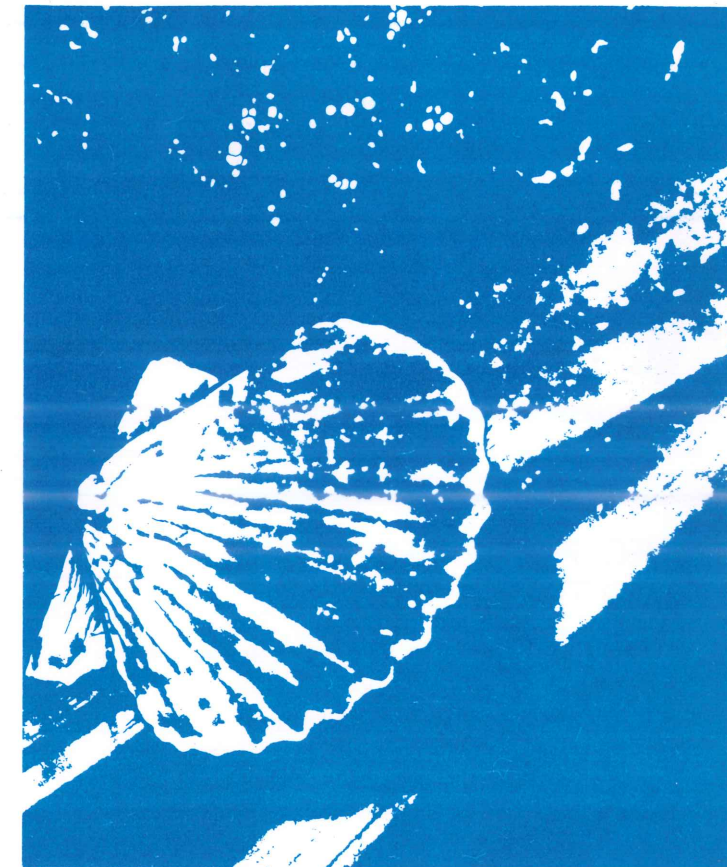
<sup>2</sup> Joint appointment with Department of Ecology and Evolution.

<sup>3</sup> Joint appointment with Department of Earth and Space Sciences.

<sup>4</sup> Joint appointment with Department of Technology and Society.

<sup>5</sup> Joint appointment with Division of Biological Sciences.

# The UNDERGRADUATE MINOR in MARINE SCIENCES



Marine Sciences Research Center  
STATE UNIVERSITY OF NEW YORK  
Stony Brook, New York 11794-5000



## THE UNDERGRADUATE MINOR IN MARINE SCIENCES

The minor in marine sciences is open to students who wish to prepare themselves for a future graduate education in marine science or a career in marine-related environmental sciences. The minor is interdisciplinary in nature, and aims to provide a foundation in marine aspects of biology, chemistry, geology, engineering and physics for the undergraduate. The minor is intended primarily for science majors and assumes completion of basic courses in mathematics, physics, chemistry, biology or geology.



## REQUIREMENTS FOR THE MINOR

- A. Either MAR 101 (3 cr), Long Island Sound: Science and Use, or MAR 104 (3 cr) Oceanography.
- B. At least 12 credits from the following:  
Any upper division MAR course (with a maximum of 3 credits from MAR 487) and either BIO 343 Marine Invertebrate Ecology, or BIO 353 Marine Ecology.

Note that no more than 3 credits of pass/no credit will be accepted toward the minor.

Contact the Director of Undergraduate Studies at the Marine Sciences Research Center (516) 632-8700 for more information.

## COURSES AVAILABLE

Courses available to undergraduate students:

Course	Title	Credits
MAR 101	Long Island Sound: Science and Use	3
MAR 104	Oceanography	3
MAR 302	Marine Microbiology	3
MAR 303	Long Island Marine Habitats	3
MAR 333	Coastal Oceanography	3
MAR 337	Primary Productivity	3
MAR 340	Environmental Problems: Case Histories	3
MAR 390	Development of Aquaculture	3
MAR 413	Marine Biochemistry	3
MAR 487	Research in Marine Sciences	†
MAR 501*	Physical Oceanography	4
MAR 502*	Biological Oceanography	4
MAR 503*	Chemical Oceanography	4
MAR 506*	Geological Oceanography	4

In addition, the following marine science courses are available in other departments and can count toward a minor in marine science.

BIO 343	Marine Invertebrate Ecology	4
BIO 353	Marine Ecology	3

†Variable credits.

\*Permission of instructor is required to take this course. Enrollment of undergraduates is limited.

In the future, the MSRC plans to offer undergraduate courses in physical oceanography and in geochemistry as well as a summer field course in estuarine science. Check with the MSRC Undergraduate Programs Director regarding their availability.



## FACILITIES

The main laboratories and offices of the Marine Sciences Research Center (MSRC) are housed in a cluster of buildings with approximately 8,000 square meters of usable floor space. Laboratories are well-equipped for most analyses, and students and faculty have access, with special arrangements, to equipment and facilities elsewhere on the main campus, at nearby Brookhaven National Laboratory and at Cold Spring Harbor Laboratory. Center and University Computing facilities are excellent. The University Library has extensive holdings in oceanography and environmental sciences as well as in the basic sciences.

Flax Pond is a salt marsh located approximately seven kilometers from campus. The Pond, which has retained a relatively pristine character, has largely been set aside for research and education. MSRC has a well-equipped laboratory located on the Pond with a continuous seawater system. Laboratory and sea-table space are available to MSRC faculty and students.

The Center operates a well-equipped 18 meter research vessel, the R/V ONRUST, as well as a number of smaller boats. Designed specifically for oceanographic research, the ONRUST is one of the finest vessels of its kind. It is outfitted for virtually every kind of oceanographic sampling.