Applied Ocean Science

OFFICE: 22 Old Scripps Bldg., Scripps Institution of Oceanography

ASSOCIATED FACULTY

Professors
Michael J. Buckingham, Ph.D., SIO; MPL
LeRoy M. Dorman, Ph.D., SIO; GRD
Carl H. Gibson, Ph.D., MAE; SIO
Robert T. Guza, Ph.D., SIO; IOD
John A. Hildebrand, Ph.D., SIO; GRD; MPL
William S. Hodgkiss, Ph.D., SIO; MPL
William A. Kuperman, Ph.D., SIO; IOD
W. Kendall Melville, Ph.D., SIO; MPL
Robert Pinkel, Ph.D., SIO; MPL
Richard C. J. Somerville, Ph.D., SIO; CRD
Bradley T. Werner, Ph.D., SIO; IGPP
Clinton D. Winant, Ph.D., SIO; IOD

Professors Emeritus
Hugh Bradner, Ph.D., MAE; IGPP
Douglas L. Inman, Ph.D., SIO; IOD
George G. Shor, Jr., Ph.D., SIO; MPL
Fred N. Spiess, Ph.D., SIO; MPL
Kenneth M. Watson, Ph.D., SIO; MPL

Associate Professor
Dariusz Stramski, Ph.D., SIO; MPL

Lecturers
Christian P. de Moustier, Ph.D., SIO; MPL
Jules S. Jaffe, Ph.D., SIO; MPL
John L. Largier, Ph.D., SIO; IOD

Associated Research Groups
Marine Physical Laboratory, MPL
Institute of Geophysics and Planetary Physics, IGPP
Marine Research Division, MRD
Geosciences Research Division, GRD
Integrative Oceanography Division, IOD
Climate Research Division, CRD

The Graduate Program

Applied Ocean Science (AOS) is an interdepartmental Ph.D. program concerned with humans’ purposeful and useful intervention in the sea. It is administered by an interdepartmental group composed of members of the faculties of cooperating departments: the Graduate Department of the Scripps Institution of Oceanography (SIO), the Department of Mechanical and Aerospace Engineering (MAE), the Department of Structural Engineering (SE), and the Department of Electrical and Computer Engineering (ECE).

This interdepartmental curriculum combines the resources of these departments to produce oceanographers who are knowledgeable about modern engineering and instrumentation, as well as marine oriented engineering scientists who are familiar with the oceans. Since physical, chemical, geological, and biological aspects of the oceans and all forms of engineering may be involved, the curriculum provides maximum flexibility in meeting the needs of each individual student.

Candidates for admission should apply directly to one of the departments participating in the Applied Ocean Science program, listing Applied Ocean Science as an area of specialization. The choice of department should be based on the individual student’s planned area of major emphasis. Applicants will be expected to meet the admission requirements of the department to which they have applied.

The program is primarily directed toward the Ph.D. degree. However, both the candidate of philosophy and master of science degree (either Plan I, thesis, or Plan II, comprehensive examination) also will be offered under special circumstances. Students applying for a terminal master’s program should be aware of any special requirements for the department to which they apply.

The degrees completed under this program in the Department of SIO will carry the title “Oceanography.” Those degrees completed in the other cooperating departments will have the parenthetical title “(Applied Ocean Science)” appended to the appropriate authorized title.

COURSES

All students enrolled in the program are required to take or demonstrate proficiency in the following core courses or their equivalent:

SIO 210 (Physical Oceanography)
SIO 240 (Marine Geology)
SIO 260 (Marine Chemistry)
SIO 280 (Biological Oceanography)
MAE 294A-B-C (Methods in Applied Mechanics) or
Math. 210A-B-C (Mathematical Methods in Physics and Engineering) or
SIO 203A-B-C (Methods of Applied Analysis)