Academic Track in the
Biological Science Major

MARINE BIOLOGY

Marine Biology is the study of sea-dwelling organisms with respect to any aspect of their biology, including ecology, physiology, behavior, reproduction and development, conservation, and evolution. Representatives of every group of microbes, plants, and animals on Earth live in the sea, and many marine organisms serve as 'model organisms' for studies in cell biology, developmental biology, biomechanics, and other sub-disciplines of biology. Marine organisms are prominently featured in natural product pharmaceutical development and biotechnology. Students following the Marine Biology Academic Track are preparing for academic, government agency, consulting or conservation-oriented careers, some of which require a B.Sc. Degree, and others of which require a graduate degree *(e.g., M.S., Ph.D., D.V.M.).* A helpful website for exploring the variety of career choices is: http://www.marinecareers.net/. Students who are especially interested in research in marine biology may want to apply in the spring of their sophomore or junior year to become a member of the **Marine Biology Honors Program**, which includes participation in the Marine Biology Honors Seminar.

CURRICULUM A solid background in biology, especially ecology and evolution, is the best preparation for a career in marine biology. A combination of conceptually and organism-oriented courses is highly recommended. The electives you choose will depend on the particular aspect of Marine Biology that attracts you, and we very strongly encourage you to consult with academic advisors, as well as faculty and graduate students in marine biology. Please note that some of the required courses have pre-requisites that should be taken care of as early as possible. Research experience (e.g., UROP, WIMSE, DIS, HITM) can be an invaluable aspect of your education, and we recommend that you contact individual faculty after exploring faculty websites and reading representative publications from labs of faculty with expertise that especially interests you.

Required Courses for the Marine Biology Track:
[some courses require additional prerequisites; see bulletin for current list]
BSC 3312 Marine Biology (3)
PCB 3043 General Ecology (3)
PCB 4674 Evolution (3) [pre-req. is Genetics]
ZOO 3205 Advanced Invertebrate Zoology (4)

Recommended Courses within the Department of Biological Science:
[some courses require additional prerequisites; see bulletin for current list]
BSC 3052 Conservation Biology (3)
BSC 4933 Lab in Ecology (2)
ZOO 5413 Animal Behavior (4)
MCB 4403/L Prokaryotic Biology (3)/Lab (2)
BSC 3402L Experimental Biology (Marine, taught by Levitan)
BSC 4933 Biogeography
BSC 4933 Marine Biology Honors Seminar (requires admission to the **Marine Biology Honors Program**)

Relevant Courses in other departments at FSU:
[some courses require additional prerequisites; see bulletin for current list]
GLY 3610C Paleontology (4)
OCB 4631 Coastal Ecology
OCE 4008 Principles of Oceanography
OCB 4637 Marine Benthic Ecology
OCB 5636 Marine Microbial Ecology
OCB 5050 Basic Biological Oceanography
OCE 4265 Coral Reefs [online]
OCE 4064 Marine Conservation Biology
OCB 5565 Marine Primary Production

OCB 5635 Coastal Processes
OCE 4930 Oceanographic Studies: Marine Megafauna Ecology
OCE 4030 Oceanographic Studies: Basic Biological Oceanography

DEPARTMENT OF BIOLOGICAL SCIENCE FACULTY value interaction and discussion with undergraduate students and encourage individual participation in research projects. The following faculty members have expertise in **marine biology**:

Scott Burgess: Population biology of coastal marine invertebrates
Don Levitan Population biology of marine organisms, reproductive strategies and mating success

Daniel Okamoto Fisheries management, trophic interactions
Andrew Rasweiller Modeling marine community dynamics of kelps & fisheries
Janie Wulff Ecology and evolution of marine organisms of coral reefs, seagrass meadows, & mangroves; ecology and evolution of mutualism

FSU Coastal and Marine Lab Faculty
Jeroen Ingels. Ecology of food webs and of meifauna
Sandra Brooke Ecology of deep-sea corals
Felicia Coleman Life history strategies of fishes; fisheries management,
Dean Grubbs Elasmobranch ecology and conservation
Chris Koenig Fish behavior and ecology,

Department of Earth, Ocean and Atmospheric Science Faculty:
William Parker Paleoecology
Jeremy Owens Paleooceanography
Amy Baco-Taylor Deep-sea benthic ecology
Jeff Chanton Chemical oceanography, environmental geology
Marcus Huettel Ecology of coastal sediments and productivity
Mariana Fuentes Marine conservation and resource management
Angie Knapp Marine biogeochemistry, nitrogen cycling
Sven Kranz Marine phytoplankton ecology, primary production
Ian MacDonald Deep ocean extreme communities
Olivia Mason Marine microbial ecology
Mike Stukel Marine plankton dynamics, biogeochemical modeling
Seth Young Paleooceanography