

# Marine Biodiversity and Conservation

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The **Master of Advanced Studies (MAS) in Marine Biodiversity and Conservation** is a unique program of study equipping its graduates with the knowledge they need to improve conservation of marine biodiversity in the world's most diverse and threatened eco-regions through development of local capacity and science-based management tools. Led by faculty of Scripps Institution of Oceanography (SIO), the program is designed to teach current and future professionals about marine ecosystems from the scientific, economic and policy perspectives, as well as provide important cultural and communications skills. The degree is most appropriate for marine resource managers in all regions of the world, practicing marine science professionals who wish to broaden their understanding and influence in this arena, science policy analysts and advocates, and natural scientists interested in obtaining a more firm grounding in the public policy and economics of marine conservation.

The MAS in Marine Biodiversity and Conservation is a full-time, self-supporting degree program that most students complete in a twelve-month period, mid-June through mid-June each year. The UCSD graduate division confers the MAS degree and the Center for Marine Biodiversity and Conservation at SIO, is responsible for the academic management of the curriculum. UCSD Extension administers the program and provides student advising and career counseling services.

## Admission

New students are admitted in the summer (June) of each academic year. Prospective candidates should submit and complete the official UCSD online graduate application for admission, the application fee, one set of official transcripts from each institution attended after high school, three letters of recommendation, and a current résumé or c.v. The GRE/GMAT is not required. It is strongly recommended that candidates have a minimum of three years of relevant work experience. International applicants must submit official scores from the Test of English as a Foreign Language (TOEFL). The application deadline is February 15 for the summer through spring academic program.

## Program of Study

The full-time degree program is designed to be completed in one year. In the summer session, classes are scheduled five days a week, eight hours a day. In the fall, summer, and spring, students take courses that are held during regularly scheduled university class hours. Students are required to complete forty-eight units of courses, comprising thirty-one core units, eleven electives units, and a six-unit capstone project.

## COURSES

### CORE CURRICULUM

#### SIO 295. Introduction to Marine Biodiversity and Conservation—Lecture (8)

Lectures on ecological, economic, social, and legal issues related to marine biodiversity and case studies on socioeconomic and legal issues. *Prerequisite:* permission of instructor. *Corequisite:* SIO 295L for IGERT and MAS students only.

#### SIO 295L. Introduction to Marine Biodiversity and Conservation—Lab (7)

Laboratory work on major biological taxa, field trips on biodiversity in situ, computer labs for informatic tools. *Prerequisite:* permission of instructor. *Corequisite:* SIO 295 for IGERT and MAS students only.

#### SIO 286. Marine Science, Economics, and Policy (4)

This course investigates global issues in marine conservation and potential policy solutions. The approach is interdisciplinary, fast paced, and discussion oriented. Students will become acquainted with sufficient background in marine biology, ecology, marine and conservation economics, international law and policy as preparation for participation in discussion on real-world issues in marine conservation. Topics and instructors change each quarter. *Prerequisite:* graduate standing or consent of instructor.

#### IRCO 400. Policy Making Processes (4)

This course is designed to teach students how to "read" a country's political and economic system. The course will examine how the evolution of different institutional frameworks in the countries of the Pacific Region influences the way in which political choices are made.

#### IRGN 257. Cost Benefit Analysis (4)

Examination of public policy analysis, such as cost-benefit analysis and project evaluation, for use in policy formation. Sustainable development will receive particular attention. Case studies emphasizing the environment, agriculture and food, and economic development will be included.

#### IRGN 258. International Environmental Policy and Politics (4)

This course analyzes multilateral environmental agreements and negotiating positions of key countries on climate change, biodiversity conservation, sustainable development, and other subjects. It explores the challenges countries face to balance economic development objectives with global environmental concerns.

#### IRGN 487. Applied Environmental Economics (4)

This course teaches students how to analyze environmental and natural resource policy issue in developing countries using economic concepts and methods. Weekly spreadsheet exercises based on real-world data provide hands-on practice. *Prerequisite:* IRCO 401, IRCO 453, IRCO 454, or consent of instructor.

#### SIO 299. Independent Study Project (6)

**Varies. Electives (refer to Electives course list) (11)**