# Marine Science

## College of Science and Engineering

Interim Dean: Carmen Domingo

### Based at the Romberg Tiburon Center

As of Fall 2017, this Program is temporarily not accepting students.

For students interested in Marine and Estuarine Science at the Romberg Tiburon Center, please visit: http://rtc.sfsu.edu/riptides/index.htm

Administered by the Department of Biology

Website: http://biology.sfsu.edu/graduate/marine_sciencesRTC

Graduate Coordinator: Ellen M. Hines ehines@sfsu.edu

The M.S. in Marine Science program is an interdisciplinary program offered at San Francisco State University (SF State) by the College of Science and Engineering, based at the Romberg Tiburon Center (RTC; http://rtc.sfsu.edu), and administered by the Department of Biology. Faculty mentors in the program are from the Departments of Biology, Chemistry and Biochemistry, Physics, Geography & Environment, and Earth & Climate Sciences

## Program Scope

The interdisciplinary MS in Marine Science program includes faculty from a broad spectrum of marine, coastal and estuarine researchers from across SF State departments. The program provides the opportunity for students to acquire a practical and theoretical education in the marine sciences to prepare them for careers as research scientists, teachers, and marine technicians. Through RTC the program provides extensive field and laboratory work for advanced study in the marine sciences.

## Master of Science in Marine Science

### Admission to the Program

Prospective students from a variety of undergraduate backgrounds are encouraged to apply. Applications are administered by the Biology Department and must comply with the application procedures and deadlines of the Biology Department (http://biology.sfsu.edu/content/applying-sfsu-biology-graduate-programs). Note, the M.S. in Marine Science is distinct from the M.S. in Biology with a concentration in marine biology.

## Marine Science (M.S.) – 30 units

### Coursework Requirements

Students are required to complete a total of 30 units, structured as follows:

- 9–10 units of research credits, comprised of:
  - **Research**
    - BIOL/CHEM/ERTH 897
    - GEOG 896
  - **Thesis**
    - BIOL/CHEM/ERTH/GEOG 898

- 20 units of coursework that must include:
  - 6–8 units of graduate seminar courses
  - 12–15 units of remaining coursework, as described below.

The 20 units of coursework are broken down below in the following categories I-V:

1. **Scientific Methods for Professional Aquatic Scientists BIOL 708, 3 units**: Required in the first semester of graduate school.

2. **Students pick at least three of the following core seminars**:
   - BIOL 862 Advances in Ecology and Systematic Biology 2
   - BIOL 863 Advances in Marine Biology 2
   - BIOL 864 Advances in Microbiology 2
   - BIOL 865 Advances in Physiology and Behavioral Biology 2
   - GEOG 857 Issues in Marine and Estuarine Conservation 3

   - Students who have completed these courses under their undergraduate courses can take other courses after advisor’s approval.

3. **Students can choose from a wide range of electives in consultation with their advisor**.
   - Electives taught at RTC include:
     - BIOL 582 Biological Oceanography 4
     - CHEM 680 Chemical Oceanography 3
     - ERTH 870 Physical Oceanography 4
     - BIOL 534 or BIOL 585 Wetland Ecology 3-4
     - ERTH 834 Coastal Processes 3
     - BIOL 731 Animal Physiology Laboratory - GWAR 4
     - BIOL 702 Biology of the Algae 3
     - GEOG 629 Coastal and Marine Applications of GIS 3

   - Electives taught at SF State, MLML, or elsewhere (e.g. UC Berkeley):
     - For example, Biometry, Environmental GIS, Conservation Biology, etc...

4. **Current RTC Research, BIOL 883, 2-4 units.** MS in MS students are expected to participate each semester in this formal course for the Wednesday RTC lecture series. Students are expected to enroll in BIOL 883 each semester, though the course can only count twice (4 units total) towards the degree. This course does not fulfill the graduate seminar requirement.

## Moss Landing Marine Laboratories Courses

Most courses for the MS in Marine Science are offered at SF State’s Romberg Tiburon Center and on the main campus. Students may also take equivalent core courses or any elective courses at the Moss Landing Marine Laboratories on advisement. Consult the current Moss Landing Marine Laboratories course schedule (https://www.mlml.calstate.edu/gradprog/current-class-schedule).