The marine studies minor is designed to provide a structured program on the Boston campus for students with an interest in the marine environment. The program allows a primary, but not exclusive, emphasis in either the scientific or the social science/humanistic study of the oceans. Some physical interaction with the sea through achievement in a specific marine-related skill and a project involving a degree of independent study is required. Students enrolled in any program at the university may complete the marine studies minor.

The program draws on courses throughout the university and is affiliated with several outstanding, specialized marine programs. These include the SEA Semester Program run by the Sea Education Association, which provides a rigorous program in marine sciences at Woods Hole, Massachusetts, and aboard one of its tall ships for training cruises in the Caribbean, Pacific, or Labrador Sea. In addition to the cruises designed to explore the broad range of aspects of marine science and culture, there are specialized cruises that add a focus on Caribbean studies, Pacific island culture, and marine environmental issues. Students may also take specialized courses in marine topics through the Marine Studies Consortium.

For more information, contact the director of marine studies, Professor Rebeca Rosengaus at 617.373.7032 or at r.rosengaus@northeastern.edu.

**COURSE REQUIREMENTS**

At least four marine-related courses totaling 16 semester hours are required, along with mastery of a marine skill and an independent study. Two courses must be beyond the introductory level. At least one course must be from the natural sciences and one from the social sciences/humanities. Other courses at the university may fulfill these requirements with the permission of the department.

Mastery of a marine-related skill can be achieved through satisfactory completion of course work or evidence of achievement through some form of approved outside certification. Course work in marine skills normally is limited to one of the six required courses.

The project requirement can be met by completion of an approved directed studies course in marine studies or in any department of the university. The project normally is limited to one of the six required courses. The project requirement can also be met, with prior approval, by completion of a major course-related project or other outside project in which a significant amount of independent study is involved.

**Minor Requirements**

Complete all courses listed below unless otherwise indicated. Also complete any corequisite labs, recitations, clinicals, or tools courses where specified.

**Required Courses**

Complete four courses from the following lists. Two courses must be above the introductory level.

**Humanities**
- ENVR 2941 Ocean Science and Public Policy
- ENVR 2942 Maritime History and Culture: The Caribbean
- ENVR 2943 Marine Environmental History: The Caribbean
- ENVR 3102 Maritime Studies

**Sciences**
- EEMB 1122 Physical Oceanography
- EEMB 1123 Biological Oceanography
- EEMB 1450 Introduction to Marine Biology
- EEMB 2616 Invertebrate Zoology
- EEMB 5504 Biology of Corals
- EEMB 5506 Biology and Ecology of Fishes
- EEMB 5508 Marine Birds and Mammals and EEMB 5509 and Lab for EEMB 5508
- EEMB 5512 Tropical Terrestrial Ecology
- EEMB 5516 Oceanography and EEMB 5517 and Lab for EEMB 5516
- EEMB 5518 Ocean and Coastal Processes
- EEMB 5520 Coral Reef Ecology
- EEMB 5522 Experimental Design Marine Ecology and EEMB 5523 and Lab for EEMB 5522
- EEMB 5528 Marine Conservation Biology
- EEMB 5532 Physiological and Molecular Marine Ecology
- EEMB 5534 Marine Invertebrate Zoology and Botany and Lab for EEMB 5534
- EEMB 5536 Ocean and Coastal Sustainability
- EEMB 5589 Diving Research Methods
- ENVR 1120 Oceans and Coasts
- ENVR 1121 Marine Resources
- ENVR 3101 Nautical Science
- ENVR 3100 Oceanography
- ENVR 3103 Oceanographic Field Methods
- ENVR 3104 Advanced Oceanographic Field Methods
- ENVR 3105 Practical Oceanographic Research
- ENVR 4106 Coastal Processes and ENVR 4107 and Lab for ENVR 4106
- ENVR 4505 Wetlands
- ENVR 5210 Environmental Planning
- ENVR 5242 Ancient Marine Life and ENVR 5243 and Lab for ENVR 5242
- ENVR 5244 Sedimentation and ENVR 5245 and Lab for ENVR 5244
- ENVR 5248 Marine Geology
- MARS 3200 Marine Studies
- MARS 3210 Marine Mammals
- MARS 3300 The Ocean World
- MARS 3325 Coastal Zone Management
- MARS 3430 Biology of Whales
- MARS 4500 Advanced Seminar in Marine Studies

HIST 2232 History of Boston
MARS 3305 Maritime History of New England
MARS 3310 Water Resources Policy and Management
Marine Studies, Minor

Marine-Related Skill
Complete one of the following: 3

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
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<tbody>
<tr>
<td>ENVR 3101</td>
<td>Nautical Science</td>
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Certification in a skill such as scuba, by a Merchant Marine license, or by a comparable level of achievement determined by the marine studies advisor.

Marine-Related Independent Study
This requirement may be satisfied by producing a research project on a marine-related topic, either as part of another course or independently. Acceptance of the project is at the discretion of the marine studies advisor.

GPA Requirement
2.000 GPA required in the minor