Marine Science Minor Requirements

The marine science minor is intended to serve as a broad introduction to the world’s oceans and therefore is designed to acquaint the student with the major aspects of the marine system. All students in the minor are required to take ECOL 182R, GEOS 212 and GEOS 412. The remaining nine units are selected from a variety of upper division indicated below with no more than six of the remaining nine units coming from the same category.

Study abroad classes are approved by advisors to match content in the minor as parallel classes. Research units may not be used to satisfy any requirements. The minor requires 18 units total.

I. Basic Ocean Sciences
Complete the following:

ECOL 182R (3) \( \text{fall, spring, summer} \)

ANTH 203, Caribbean Transformations (3) \( \text{fall} \)

OR GEOG 230, Our Changing Climate (3) \( \text{fall, summer (sometimes spring and winter)} \)

OR GEOS 212, Introduction to Oceanography (3) \( \text{fall, spring summer} \)

GEOS 412A Ocean Science (3) \( \text{spring} \)

II. Area Studies
Complete three courses from the following, with no more than two courses from any given category below:

Biology of the Oceans, Upper Division
ECOL 404R Biology of the Oceans (3) \( \text{(not currently scheduled)} \)

ECOL 450 Marine Discovery (4) \( \text{fall} \)

ECOL 482 Ichthyology (4) \( \text{fall} \)

ECOL 496O-SA Galapagos Marine Ecology (6) \( \text{summer dynamic} \)

Human Impact on the Oceans, Upper Division
ACBS 456 Introduction to Aquaculture (3) \( \text{spring} \)

ECOL 360 Marine Ecology and Conservation (3) \( \text{spring} \)

ECOL 406 Conservation Biology (3) \( \text{spring} \)

ECOL 474 Aquatic Plants and the Environment (4) \( \text{fall} \)

ECOL 475 Freshwater and Marine Algae (4) \( \text{spring} \)

RNR 480 Natural Resources – Policy and Law (3) \( \text{spring} \)

WFSC 385 Zoo and Aquarium Management (3) \( \text{fall} \)

WFSC 455R/L Fisheries Management (4) \( \text{spring} \)
<table>
<thead>
<tr>
<th>Course</th>
<th>Units</th>
<th>Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geoscience of the Oceans, Upper Division</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GEOS 302 Sedimentology and Stratigraphy (3)</td>
<td></td>
<td>fall, spring</td>
</tr>
<tr>
<td>GEOS 308 Paleontology (3)</td>
<td></td>
<td>fall</td>
</tr>
<tr>
<td>GEOS 342 The History of Earth's Climate (3)</td>
<td></td>
<td>fall</td>
</tr>
<tr>
<td>GEOG 430 The Climate System (3)</td>
<td></td>
<td>spring</td>
</tr>
<tr>
<td>GEOS 478 Global Change (3)</td>
<td></td>
<td>fall</td>
</tr>
<tr>
<td>GEOS 479 Introduction to Climate Dynamics (3)</td>
<td></td>
<td>fall</td>
</tr>
</tbody>
</table>

A minimum of 18 units are required for the minor.
A minimum minor GPA of 2.0 is required.
A minimum of 3 units in the minor must be taken at the UA.
A minimum of 12 upper division units are required in the minor.