Marine Sciences Minor

Advising for minors and approval of equivalent courses is provided through the Department’s Director of Undergraduate Studies, Dr. Marc Alperin (962-5184). Other faculty in the Department of Marine Sciences provide additional advice to minors and help arrange and supervise practical experiences.

1) A course emphasizing global oceanic processes (choose one of the following):
   - MASC 101 The Marine Environment (GEOL 103)  ...OR...
   - MASC 401 Oceanography (GEOL 403/BIOL 350/ENVR 417)
   *Students may not receive credit for both MASC 101 and MASC 401.

2) A course emphasizing the coastal ocean (choose one of the following):
   - MASC 055 FYS: Change in the Coastal Ocean
   - MASC 220 North Carolina Estuaries: Environmental Processes and Problems
   - MASC 223 Geology of Beaches and Coasts
   - MASC 411 Oceanic Processes in Environmental Systems (ENST 411/GEOL 411)
   - MASC 430 Coastal Sedimentary Environments (GEOL 430)
   - MASC 432 Major Rivers and Global Change: Mountains to the Sea
   - MASC 440 Marine Ecology (BIOL 462)
   - MASC 442 Marine Biology (BIOL 457)
   - MASC 448 Coastal and Estuarine Ecology (ENST 472)
   - MASC 471 Human Impacts on Estuarine Ecosystems (ENST 471)
   - MASC 472 Barrier Island Ecology and Geology
   - ENST 222 Estuarine and Coastal Marine Science
   - ENVR 449 Ecology of Wetlands
   *or equivalent course emphasizing the coastal ocean

3) A course featuring practical experience in marine science (choose one of the following):
   Field course
   - ENST 222 Estuarine and Coastal Marine Science
   - MASC 052 FYS: Living with Our Oceans and Atmosphere
   - MASC 220 North Carolina Estuaries: Environmental Processes and Problems
   - MASC 223 Geology of Beaches and Coasts
   - MASC 430 Coastal Sedimentary Environments
   - MASC 432 Major Rivers and Global Change: Mountains to the Sea
   - MASC 448 Coastal and Estuarine Ecology (ENST 472)
   - MASC 471 Human Impacts on Estuarine Ecosystems (ENST 471)
   - MASC 472 Barrier Island Ecology and Geology
   - MASC 503 Marine Geology (GEOL 503)
   - MASC 504 Biological Oceanography (BIOL 657/ENVR 520)
   *or equivalent field course
Laboratory course
- MASC 431 Micropaleontology (GEOL 431)
- MASC 444 Marine Phytoplankton
- MASC 445 Marine Invertebrate Biology (BIOL 475)
- MASC 551 Biogeochemical Techniques
  
  or equivalent laboratory course

Mathematical modeling course or data analysis course
- MASC 415 Environmental Systems Modeling (ENST 415/ENVR 461/GEOL 415)
- MASC 480 Marine Systems Modeling (ENVR 460/GEOL 480)
- MASC 483 Geologic and Oceanographic Applications of Geographical Information (GEOL 483)
- MASC 561 Time Series and Spatial Data Analysis or equivalent
  
  or equivalent mathematical modeling or data analysis course

Independent Research course
- MASC 395 Undergraduate Research in Marine Sciences
- MASC 396 Independent Study in Marine Sciences

4) A fourth Marine Sciences course of the student’s choosing.