# **Oceanography track for AOS major**

* Lower division classes
  + Math, physics, and chemistry requirements
  + AOS M71. Introduction to Computing for Geoscientists (normally taught in Fall)
    - Or PiC 10A (taught all quarters), but AOS M71 strongly recommended
  + AOS 51. Fundamentals of climate science
  + AOS 90. Introduction to undergraduate research in the climate, atmospheric, and oceanic sciences (normally taught in Winter)
  + Suggested (not required): EPSS 15. Blue Planet: Introduction to Oceanography
* Recommended core courses (4 required):
  + 103. Physical Oceanography (recommended to take in Fall of JR year)
  + M105. Introduction to Chemical Oceanography (recommended to take in JR year)
  + 107: Biological Oceanography
  + 112: Climate Change Assessment
* Advanced upper division courses (3 required)
  + Recommended:
    - 130. California's Ocean (103 or 105 recommended)
    - M120. Introduction to Fluid Dynamics
    - 135. Ocean change in the Anthropocene (103 and 105 required)
    - C160. Remote Sensing of Atmosphere and Oceans
  + Suggested:
    - 104. Fundamentals of Air and Water Pollution
    - CM114. Aquatic Geomicrobiology
    - 180. Numerical Methods in Atmospheric Sciences
* Upper division courses from other science departments (2 required)
  + Recommended:
    - C&EE 103. Applied Numerical Computing and Modeling in Civil and Environmental Engineering
    - Chem 110A. Physical Chemistry: Chemical Thermodynamics
    - EPSS 153 Oceans and Atmospheres
    - MAE 103. Elementary Fluid Mechanics
    - Math 142. Mathematical Modeling
    - Phys 131. Mathematical methods of physics
  + Suggested:
    - E&EB 109. Introduction to Marine Sciences
    - Geog 104. Climatology
    - Math 136. Partial differential equations
    - Math 151A. Applied Numerical Methods
    - Stats 101A. Introduction to data analysis and regression