# **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