2016-2017

OCEANIC AND ATMOSPHERIC SCIENCES

Lower Division Requirements  (All courses must be taken for a Letter Grade)

Math
20A    20B    20C    20D    20E    18
Chemistry
6A    6B    6C    7L
Physics
2A    2B    2C   (or 4A    4B    4C)
Physics Lab
2BL    2CL
SIO
60

Upper Division Requirements  (All courses must be taken for a Letter Grade)

Group A: Core Requirements (all courses are required):

SIO 171
SIO 172
SIO 174

Introduction to Physical Oceanography
Physics of the Atmosphere
Chemistry of the Ocean and Atmosphere

Group B: Upper-Division Restricted Electives (choose at least 4 of the following):

SIO 111
SIO 117
SIO 141
SIO 143
SIO 173
SIO 175
SIO 176
SIO 177
SIO 178

Introduction to Ocean Waves
The Physical Basis of Global Warming
Chemical Principles of Marine Systems
Ocean Acidification
Dynamics of Atmosphere and Climate
Analysis of Oceanic and Atmospheric Data
Observational Physical Oceanography
Fluid Dynamics
Geophysical Fluid Dynamics

Group C: Upper-Division Restricted Electives (choose at least 5 of the following):

Student may use any additional course(s) from the Restricted Electives list (Group B, above) as a Group C elective

SIO 101
SIO 108
SIO 110
SIO 113
SIO 115
SIO 119
SIO 134
SIO 135
SIO 160
SIO 199

California Coastal Oceanography
Introduction to Paleoclimatology
Introduction to GIS & GPS for Scientists
Introduction to Computational Earth Sciences
Ice and the Climate System
Physics and Chemistry of the Oceans
Introduction to Biological Oceanography
Satellite Remote Sensing
Introduction to Tectonics
Independent Study

CHEM 127
CHEM 130
CHEM 131
CHEM 132
CHEM 171
CHEM 173

Physical Chemistry
Chemical Physics: Quantum Mechanics
Chemical Physics: Stat Thermo I
Chemical Physics: Stat Thermo II
Environmental Chemistry I
Atmospheric Chemistry

MATH 110A
MATH 110B
MATH 120A
MATH 120B
MATH 180A

Intro to Partial Differential Equations
Elements of Partial Differential Equations and Integral Equations
Elements of Complex Analysis
Applied Complex Analysis
Introduction to Probability

PHYSICS 110A
PHYSICS 110B
PHYSICS 140A
PHYSICS 140B

Mechanics I
Mechanics II
Statistical and Thermal Physics I
Statistical and Thermal Physics II

MAE 101A
CENG 101A

Introductory Fluid Mechanics
Introductory Fluid Mechanics

CHEM 171
CHEM 173

Atmospheric Chemistry

All Upper Division courses are 4 units unless otherwise indicated.