COURSE DETAIL

OCEANS AND ATMOSPHERE
Country United Kingdom - Scotland
Host Institution University of St Andrews
Program(s) University of St Andrews
UCEAP Course Level Upper Division
UCEAP Subject Area(s) Earth & Space Sciences
UCEAP Course Number 121
UCEAP Course Suffix
UCEAP Official Title OCEANS AND ATMOSPHERE
UCEAP Transcript Title OCEANS & ATMOSPHERE
UCEAP Quarter Units 6.00
UCEAP Semester Units 4.00

Course Description

This course covers the physical, chemical, and biological processes that impact the oceans and atmosphere. As Earth’s fluid envelopes, the oceans and atmosphere share many dynamical similarities, as well as important differences. The course covers the geophysical fluid dynamics of the ocean and atmosphere, which influence the large-scale transport of heat and water/air masses, as well as small-scale features such as eddies and convection. Different modes of climate variability, such as the El Nino-Southern Oscillation are investigated. This course also covers key biogeochemical processes that impact on the chemistry of the ocean and atmosphere, including carbon and nutrient cycling, and air-sea gas exchange. The insights from the physical circulation of the ocean and atmosphere build on knowledge of biological and chemical processes and reactions to understand key concepts such as cloud formation and aerosols.

Language(s) of Instruction
English

Host Institution Course Number
ES3013

Host Institution Course Title
OCEANS AND ATMOSPHERE

Host Institution Campus

Host Institution Faculty

Host Institution Degree

Host Institution Department
Earth Sciences

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