

# 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 Niño-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 Course Details

[https://www.st-andrews.ac.uk/subjects/modules/catalogue/?code=ES3013&academic\\_y...](https://www.st-andrews.ac.uk/subjects/modules/catalogue/?code=ES3013&academic_y...)

## Host Institution Campus

## Host Institution Faculty

## Host Institution Degree

## Host Institution Department

Earth Sciences

**Course Last Reviewed**

2024-2025

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