

# COURSE DETAIL

## MARINE SYSTEMS

**Country**

South Africa

**Host Institution**

University of Cape Town

**Program(s)**

University of Cape Town

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Environmental Studies Biological Sciences

**UCEAP Course Number**

144

**UCEAP Course Suffix****UCEAP Official Title**

MARINE SYSTEMS

**UCEAP Transcript Title**

MARINE SYSTEMS

**UCEAP Quarter Units**

8.00

**UCEAP Semester Units**

5.30

## Course Description

This advanced course covers the main ocean and atmosphere systems, with a particular emphasis on their biogeochemical functioning. This includes an introduction to the major marine biogeochemical cycles, seawater carbonate chemistry, phytoplankton-nutrient interactions and growth kinetics, surface ocean-lower atmosphere interactions, and an introduction to Earth system dynamics. The physical forcings and their biogeochemical and ecosystem responses are quantitatively illustrated for upwelling systems, oligotrophic systems, coastal systems around South Africa, and the Southern Ocean. Emphasis is placed on treating the systems in an integrative manner. Methods of data sampling and analysis, computation of biogeochemical pools, and rates and feedback are covered in the tutorials and practicals.

### Language(s) of Instruction

English

### Host Institution Course Number

SEA2005S

### Host Institution Course Title

MARINE SYSTEMS

### Host Institution Campus

University of Cape Town

### Host Institution Faculty

Faculty of Science

### Host Institution Degree

### Host Institution Department

DEPARTMENT OF OCEANOGRAPHY

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