

# COURSE DETAIL

## CLIMATE SYSTEM DYNAMICS

**Country**

Hong Kong

**Host Institution**

Chinese University of Hong Kong

**Program(s)**

Chinese University of Hong Kong

**UCEAP Course Level**

Lower Division

**UCEAP Subject Area(s)**

Physics Earth & Space Sciences

**UCEAP Course Number**

20

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

CLIMATE SYSTEM DYNAMICS

**UCEAP Transcript Title**

CLIMATE SYSTEMS

**UCEAP Quarter Units**

4.50

**UCEAP Semester Units**

3.00

## Course Description

This course presents an integrated introduction to the climate system, stressing the dynamics of the atmosphere and its physical and chemical interactions with the hydrosphere, biosphere and geosphere. The course applies basic scientific and mathematical principles to explain the history, current state and future projection of weather and climate, natural hazards (e.g., typhoons, floods), and global climate change in the context of natural variability and anthropogenic influence. Topics include Earth's energy balance, climate feedback, convection and clouds, general circulation of the atmosphere and ocean, biogeochemistry and global carbon cycle, roles of vegetation and ecosystems, and historical and future climate change.

## Language(s) of Instruction

English

## Host Institution Course Number

ESSC2020

## Host Institution Course Title

CLIMATE SYSTEM DYNAMICS

## Host Institution Campus

## Host Institution Faculty

## Host Institution Degree

## Host Institution Department

Earth Space and Science

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