

## COURSE DETAIL

### INTRODUCTION TO EARTH SYSTEM SCIENCE

**Country**

Taiwan

**Host Institution**

National Taiwan University

**Program(s)**

National Taiwan University

**UCEAP Course Level**

Lower Division

**UCEAP Subject Area(s)**

Earth & Space Sciences

**UCEAP Course Number**

14

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

INTRODUCTION TO EARTH SYSTEM SCIENCE

**UCEAP Transcript Title**

EARTH SYSTEMS

**UCEAP Quarter Units**

4.50

**UCEAP Semester Units**

3.00

## Course Description

This course introduces and covers the fundamental yet significant topics on the basic workings of Earth System Science, the interactions between its sub-systems, the past, current, and future conditions of Earth's environments, as well as modern human activities and its interactions with Earth's environment. Topics include: Global Change, Daisyworld: An Introduction to Systems, Global Energy Balance: Greenhouse Effect, Atmospheric Circulation System, Circulation of the Oceans, Circulation of the Solid Earth: Plate Tectonics, Recycling of the Elements, Focus on the Biota, Origin of Earth and of Life, Effects of Life on the Atmosphere: The Rise of Oxygen and Ozone, Long-term Climate Regulation, Pleistocene Glaciations, and Global Warming: Recent and Future Climate, Impacts, Adaptation, and Mitigation

## Language(s) of Instruction

### Host Institution Course Number

AtmSci1004

### Host Institution Course Title

INTRODUCTION TO EARTH SYSTEM SCIENCE

### Host Institution Campus

### Host Institution Faculty

### Host Institution Degree

### Host Institution Department

Atmospheric Sciences

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