

# COURSE DETAIL

## SUSTAINABLE ENERGY

**Country**

United Kingdom - England

**Host Institution**

University of London, Royal Holloway

**Program(s)**

University of London, Royal Holloway

**UCEAP Course Level**

Upper Division

**UCEAP Subject Area(s)**

Earth & Space Sciences

**UCEAP Course Number**

120

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

SUSTAINABLE ENERGY

**UCEAP Transcript Title**

SUSTAINABLE ENERGY

**UCEAP Quarter Units**

6.00

**UCEAP Semester Units**

4.00

## Course Description

The course introduces the students to the concept of sustainable energy and the main renewable energy resources. Those covered in the course are geothermal, hydro, wind, solar, and marine energy, the emphasis being on geothermal energy. The current and potential use of these energy resources for producing electricity and space heating are discussed, with application to the UK where appropriate. The focus is on current and future use of these resources, as well as on quantitative aspects and understanding some of the relevant physics. The module covers the basic concepts of energy science, including conservation of energy, basic thermodynamic concepts, energy efficiency, and related topics presented at an elementary (easily understood) level. An emphasis is on the ideal combination between geothermal energy (which is a steady source – always there) and other but non-steady renewable sources (e.g., solar and wind energy).

### Language(s) of Instruction

English

### Host Institution Course Number

GL2740

### Host Institution Course Title

SUSTAINABLE ENERGY

### Host Institution Campus

Royal Holloway

### Host Institution Faculty

### Host Institution Degree

### Host Institution Department

Earth Sciences

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