COURSE DETAIL

NATURAL HAZARDS

Country

United Kingdom - Scotland

Host Institution

University of Edinburgh

Program(s)

University of Edinburgh

UCEAP Course Level

Upper Division

UCEAP Subject Area(s)

Earth & Space Sciences

UCEAP Course Number

114

UCEAP Course Suffix

UCEAP Official Title

NATURAL HAZARDS

UCEAP Transcript Title

NATURAL HAZARDS

UCEAP Quarter Units

8.00

UCEAP Semester Units

5.30

Course Description

This course introduces the Earth System as a basis for characterizing and understanding natural hazards, their causes and consequences. The major types of natural hazard are described, analyzed, and assessed in terms of their underlying causes as well as their socio-economic and environmental impacts. This course capitalizes on natural synergies between subsurface, surface, and human dimensions of the Earth System. Hazards for consideration include earthquakes and tsunamis, volcanic hazards (local, regional and global scale), meteorological hazards (hurricanes, tornadoes, dust storms, El-Nino, flooding and coastal erosion), topographic hazards such as collapse of unstable slopes, and hazards arising from climate change. The evidence for past natural catastrophes and hazards, recorded in natural archives, are described along with remote sensing methods for documenting current hazards and hazard risk. The principles and application of risk assessment and analysis are considered with respect to case studies. The course concludes with an overview of human settlement, planning, and policy in relation to natural hazards in the light of their socio-economic impacts. The course comprises lectures supplemented by a series of laboratory classes, together with a directed program of reading.

Language(s) of Instruction

English

Host Institution Course Number

EASC08011

Host Institution Course Title

NATURAL HAZARDS

Host Institution Campus

Edinburgh

Host Institution Faculty

School of Geosciences

Host Institution Degree

Host Institution Department

Earth Science

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