LONDON'S GLOBAL UNIVERSITY

Civil, Environmental and Geomatic Engineering

Introduction to Seismic Design of Structures (CEGE0032)

Description

Aims and Topics.

The **aims** of the course are: to provide knowledge of the concepts behind seismic design and their implementation in different building codes of practice; to impart knowledge of materials, structural element behaviour and global structural behaviour under seismic loading; to provide the knowledge necessary for students to design reinforced concrete structures to any seismic code; to introduce the use of software packages for seismic analysis and design.

This course is intended to cover the following **topics**:

Intro to Seismology and Earthquake Engineering

Intro to Probabilistic Seismic Hazard Analysis (PSHA)

Earthquake Load Representation: Response Spectrum and Equivalent Static Approach

Intro to Eurocode 8

Intro to GSA

Response of structures to earthquakes/Conceptual Design

Detailed design of RC structures (Eurocode 8)

Advanced topics in Seismic Design

Earthquake case studies

Earthquake Engineering Field Trip

Learning outcomes.

The **learning outcomes** of the course are: understanding the concepts behind seismic design; understanding the behaviour of building materials, structural members and structural systems under earthquake loading; having the ability to interpret and critique different seismic codes of practice; gaining knowledge of how to design civil engineering structures for seismic resistance.

Key information

Year	2019/20
Credit value	15 (150 study hours)
Delivery	PGT L7, Campus-based
Reading List	View on UCL website
Tutor	Dr Carmine Galasso
Term	Term 1
Timetable	View on UCL website

Assessment

Coursework: 20%
Coursework: 40%
Coursework: 40%

Find out more

For more information about the department, programmes, relevant open days and to browse other modules, visit ucl.ac.uk

Disclaimer: All information correct as of August 2019. Please note that aspects of the module may be subject to change. UCL will make best efforts to inform applicants of major changes.

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