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:

1. Intro to Seismology and Earthquake Engineering
2. Intro to Probabilistic Seismic Hazard Analysis (PSHA)
3. Earthquake Load Representation: Response Spectrum and Equivalent Static Approach
4. Intro to Eurocode 8
5. Intro to GSA
6. Response of structures to earthquakes/Conceptual Design
7. Detailed design of RC structures (Eurocode 8)
8. Advanced topics in Seismic Design
9. Earthquake case studies
10. 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

<table>
<thead>
<tr>
<th>Year</th>
<th>2019/20</th>
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</thead>
<tbody>
<tr>
<td>Credit value</td>
<td>15 (150 study hours)</td>
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<tr>
<td>Delivery</td>
<td>PGT L7, Campus-based</td>
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<td>Reading List</td>
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<tr>
<td>Tutor</td>
<td>Dr Carmine Galasso</td>
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<td>Term</td>
<td>Term 1</td>
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<td>Timetable</td>
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</tbody>
</table>

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
Introduction to Seismic Design of Structures (CEGE0032)

**Description**

Aims and Topics.

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**Key information**

- **Year**: 2019/20
- **Credit value**: 15 (150 study hours)
- **Delivery**: UGM 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**

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