Civil, Environmental and Geomatic Engineering

Advanced Structural Analysis (CEGE0046)

**Description**
This module uses exciting practical applications to introduce different forms of advanced structural analysis. In all cases the emergence of structural analysis as an amalgam of material behaviour, equilibrium and compatibility considerations is emphasised. The practical applications are timber-concrete composites (where slip analysis is the key), double-stiffness hyperstatic spans (where moment optimisation analysis via manipulation of stiffness distributions is the key), FRP-plated reinforced concrete sections (where analysis to show the effect of material nonlinearities on plated section behaviour is key) and FRP bridges where dovetailing of structural analysis and design to enable definition of one such bridge is the key. The first three topics are assessed via a 2 hour exam at the end of the academic year, while the fourth is assessed via coursework. The split is exam 70% : coursework 30%.

**Key information**

<table>
<thead>
<tr>
<th><strong>Year</strong></th>
<th>2020/21</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Credit value</strong></td>
<td>15 (150 study hours)</td>
</tr>
<tr>
<td><strong>Delivery</strong></td>
<td>PGT L7, Campus-based</td>
</tr>
<tr>
<td><strong>Reading List</strong></td>
<td>View on UCL website</td>
</tr>
<tr>
<td><strong>Tutor</strong></td>
<td>Dr Wendel Sebastian</td>
</tr>
<tr>
<td><strong>Term</strong></td>
<td>Term 1</td>
</tr>
<tr>
<td><strong>Timetable</strong></td>
<td>View on UCL website</td>
</tr>
</tbody>
</table>

**Assessment**

- Written examination (main exam period): 70.0%
- Coursework: 30.0%

**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 March 2020. Please note that aspects of the module may be subject to change. UCL will make best efforts to inform applicants of major changes.
Advanced Structural Analysis (CEGE0046)

This module uses exciting practical applications to introduce different forms of advanced structural analysis. In all cases the emergence of structural analysis as an amalgam of material behaviour, equilibrium and compatibility considerations is emphasised. The practical applications are timber-concrete composites (where slip analysis is the key), double-stiffness hyperstatic spans (where moment optimisation analysis via manipulation of stiffness distributions is the key), FRP-plated reinforced concrete sections (where analysis to show the effect of material nonlinearities on plated section behaviour is key) and FRP bridges where dovetailing of structural analysis and design to enable definition of one such bridge is the key. The first three topics are assessed via a 2 hour exam at the end of the academic year, while the fourth is assessed via coursework. The split is exam 70% : coursework 30%.

Key information

- **Year**: 2020/21
- **Credit value**: 15 (150 study hours)
- **Delivery**: UGM L7, Campus-based
- **Reading List**: View on UCL website
- **Tutor**: Dr Wendel Sebastian
- **Term**: Term 1
- **Timetable**: View on UCL website

Assessment

- **Written examination (main exam period)**: 70.0%
- **Coursework**: 30.0%

Find out more

For more information about the department, programmes, relevant open days and to browse other modules, visit [ucl.ac.uk](http://ucl.ac.uk)

Disclaimer: All information correct as of March 2020. Please note that aspects of the module may be subject to change. UCL will make best efforts to inform applicants of major changes.