Structures and Materials (CEGE0024)

Description
This is an advanced level course on Structures (Structural Engineering) and Materials for BEng/MEng students. This module builds on the concepts covered in the corresponding modules in years 1 and 2 placing special emphasis on transferring theoretical concepts within a more practical context. Structures: The content will be delivered as a combination of traditional lecture format and short problem sheets to be solved privately and discussed, as a group, during lectures. Half of the lectures will be practical workshops for students to work in groups developing a practical project supported by our industrial partners. All relevant support material will be made available on Moodle. Materials: The content will be delivered through lectures, workshop/seminar and lab sessions. The workshop/seminar and lab sessions will be supported by two technicians in the Advanced Materials Lab. Further assistance will also be available from one PGTA. All the teaching materials will be made available on Moodle.

Learning Outcomes

Structures:
- Understand the theory of plasticity in structures and corresponding analysis methods
- Understand the importance of implementing an effective structural Finite Element modelling process and its fundamental principles

Materials:
- Understanding on the theory and practical application skills of some non-destructive and partially destructive test methods for testing the strength of concrete structures.
- Knowledge of some commonly used concrete admixtures such as setting regulators, plasticiser/superplasticiser and air entraining admixtures.

Key information
- Year: 2019/20
- Credit value: 15 (150 study hours)
- Delivery: UG L6, Campus-based
- Reading List: View on UCL website
- Tutor: Dr Rodolfo Lorenzo
- Term: Term 2
- Timetable: View on UCL website

Assessment
- Written examination (main exam period): 60%
- Coursework: 20%
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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.
Knowledge and good understanding on commonly used additions in concrete, durability of concrete structures and fibre reinforced composites.