

## Environmental Modelling (CEGE0054)

### Description

This module is on theoretical introduction and practical experience in modelling and management of environmental engineering systems. We introduce system dynamics, mathematical model building, optimisation, decision theory under uncertainty and problem solving from nature. These are used for supporting decision making in environmental systems such as water, climate, air, food and energy.

### Learning Outcomes:

Upon completing the module students will be familiar with theory and practice of numerical optimisation, simulation technique, decision making for policy planning and the basics of several modelling approaches commonly used in the analysis of environmental system. They will be able to describe and recognise environmental resources as systems, select and build appropriate tools to analyse and manage environmental systems. Students should be able to formulate, use and understand models of problem situations including, where appropriate, using state-of-the-art computer modelling tools such as GAMS and System Dynamic software in their assignments.

### Key information

<b>Year</b>	2019/20
<b>Credit value</b>	15 (150 study hours)
<b>Delivery</b>	PGT L7, Campus-based
<b>Reading List</b>	<a href="#">View on UCL website</a>
<b>Tutor</b>	<a href="#">Dr Tohid Erfani</a>
<b>Term</b>	Term 2
<b>Timetable</b>	<a href="#">View on UCL website</a>

### Assessment



- Written examination (main exam period): 60%
- Coursework: 20%
- Coursework: 20%

### 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)

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