

## CE 205 CREATIVE DESIGN (2)

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**Lecturers:** Professor C.M. Wise, (CMW)  
Mr. E. McCann (EMcC)

**Structure:** see below

**Links:** see description in CE113 (Creative Design 1)

### Introduction

Creative Design (2) is the second part of the two year design foundation course with creative design learning at its heart. Students have already completed Creative Design (1) as part of their first year studies.

Like Creative Design (1), Creative Design (2) tackles design generally in the context of group projects. Unless noted below the module structure, assessment and equipment requirement is generally as described for Creative Design 1 (CE 113).

### SYLLABUS

The aim of the course is to give everyone the chance to try a broad range of engineering design types and project issues, and to develop the tools of engineering judgement.

In Creative Design (2), year 2 students are encouraged to try designs of increasing engineering relevance and complexity. Projects become increasingly engineering-centred, and increase in the breadth of taught and experiential knowledge required. Projects might include a dam, a skyscraper, or a disaster relief project. Suggestions for project types are welcomed.

New key themes are developed. These include:

- constructability
- the way in which concepts are tested and analysed
- sustainability and environmental awareness
- affordability and the business case
- risk management and mitigation
- the planning context, approvals
- project management

For CD2, students will be given guidance in the use of an Engineer's "Toolbox", provided by the lecturers as an introduction to the use of approximate analytical methods in design.

### Learning Outcomes

By the end of the year students should be able to:

- link many different design influences together to produce a single holistic design solution.
- recognise and use the different skills of synthesis and analysis

- use the engineer's toolbox
- understand the many criteria used to assess a design, and develop engineering judgement about which are important on a project by project basis

## **2 way constructive feedback**

As in CD 1, those who want constructive feedback on their performance are invited to stay behind at the end of the class for a discussion with Chris and Ed. Unfortunately given the constraints of numbers and the workshop format there will be no other regular formal opportunity to discuss work.

Chris and Ed welcome suggestions to change the course at any time, and will do their best to take valid concerns on board. These suggestions can be emailed, or discussed in person after (but not during) the class.

### **Further Recommended Reading**

LS BLAKE, Civil Engineer's Reference Book

ROY CHUDLEY, Construction Technology

RICHARD ROGERS, Cities for a Small Planet

TASCHEN, The Bauhaus

BS 6100: Building and Civil Engineering Terms