Civil Engineering Management [10 ECTS credits]

Lecturer(s): Dr Niamh Harty (niamh.harty@tcd.ie) – module coordinator, J. O’Connor, P. O’Sullivan, I. Barrett, S. McEvoy, F. Cooney, T. Allwright, K. Rudden

Module organisation
This module is taught in Semester 1.

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<th>Semester</th>
<th>Start Week</th>
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<th>Associated Practical Hours</th>
<th>Lectures</th>
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Total Contact Hours: 38

Module description, aims and contribution to programme
This module aims to provide civil engineers with some of the management tools they will need in their careers whether it be on a construction site or in a design office. Students who complete this module will have a knowledge of Project management concepts and the use of computers in civil engineering project management; Construction contracts and dispute resolution methods; Industrial relations and employment legislation; Health and safety legislation and safety management; Management and strategic HR.

Learning outcomes
On completion of this module, the student will:

1. Understand the key elements of the management of large projects
2. Be able to use MS Project to design, update and modify a programme for the completion of a small project
3. Understand the roles of the parties to a civil engineering contract, and be aware of the different methods of dispute resolution in use in Ireland today
4. Appreciate the importance of HR and strategic management in business
5. Be aware of health and safety legislation, and the importance of safety management
6. Have a good knowledge of what is involved in industrial relations and the content of IR and employment legislation

Module content
1. Project management concepts;
2. Use of MS Project for civil engineering projects;
3. Industrial relations and employment legislation;
4. Health & safety – legislation and management;
5. Management and strategic HR;
6. Construction contracts
**Teaching strategies**
There will be 30 hours of lectures, and 8 hours of practicals using MS Project

**Assessment**
An examination and a project contribute towards the final mark. The examination is worth 80% of the final mark, and the project is worth 20% of the total. The project is a planning exercise using MS project. Pass mark is 50%.

**Required textbook**
Extra reading may be recommended by individual lecturers

**Further information**
School of Engineering [http://www.tcd.ie/civileng/postgraduate/msc/](http://www.tcd.ie/civileng/postgraduate/msc/)