



Waterford Institute of Technology
INSTITIÚID TEICNEOLAÍOCHTA PHORT LÁIRGE

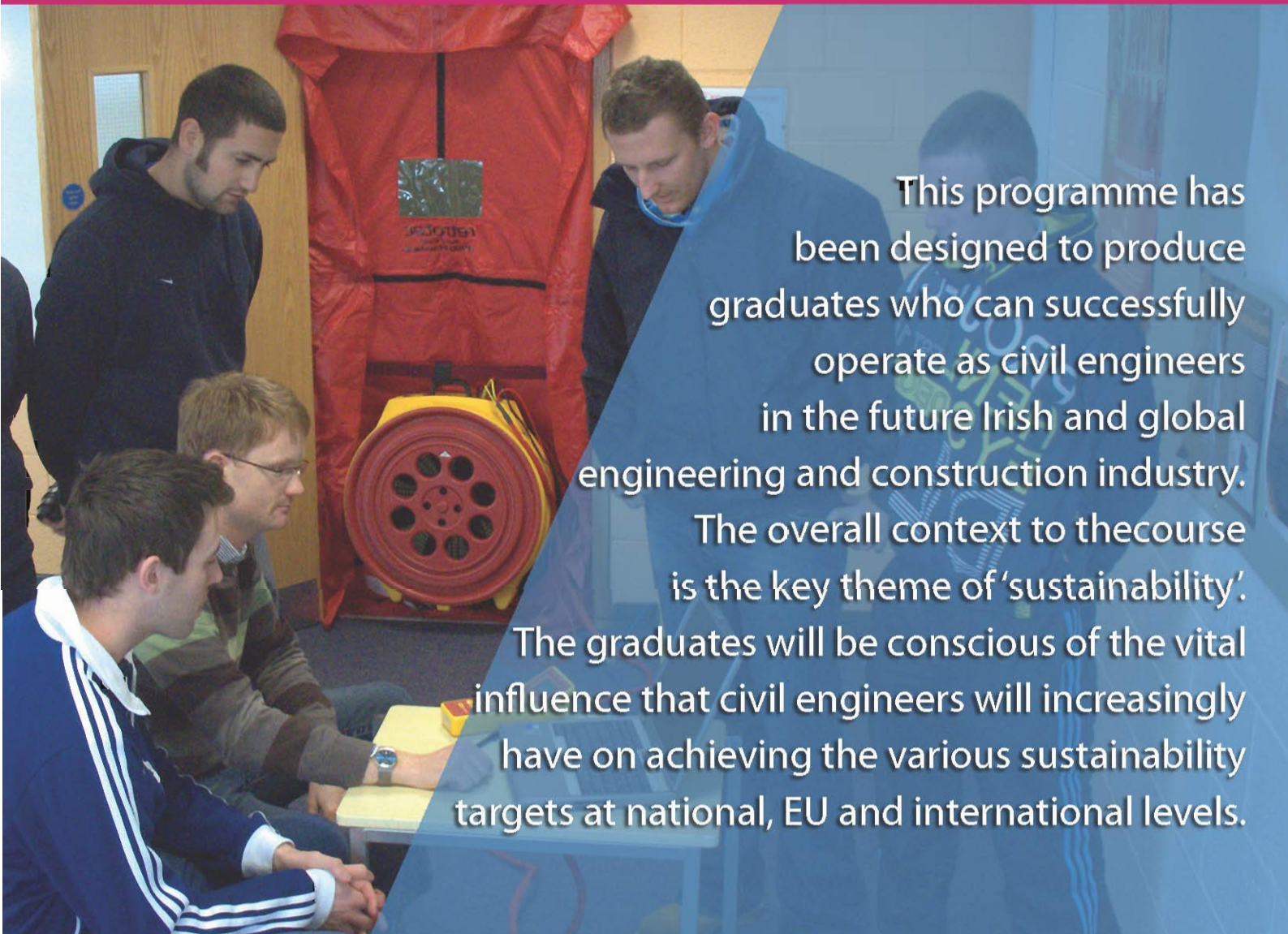
UNDERGRADUATE

BEng [Honours] in Sustainable Civil Engineering

LEVEL 8

Department of Construction and Civil Engineering

CODE: WD178



This programme has been designed to produce graduates who can successfully operate as civil engineers in the future Irish and global engineering and construction industry. The overall context to the course is the key theme of 'sustainability'. The graduates will be conscious of the vital influence that civil engineers will increasingly have on achieving the various sustainability targets at national, EU and international levels.

Conducting a door blower test in class (Dec 10)

BEng [Honours] in Sustainable Civil Engineering

What is the BEng [Honours] in Sustainable Civil Engineering Course?

Civil Engineers are increasingly working to achieve safe and sustainable development in a cost-effective, environmentally protective and socially responsible manner. They utilise engineering principles to enhance the built and natural environment, and contribute to environmental protection and remediation, water conservation, environmental biotechnology, materials and infrastructure development. The completion of a civil engineering project involves the solution of technical problems from which the cooperation among professionals of many different disciplines is needed. From conceptual design to forensic study of failed performance, civil engineers need the mathematical, scientific and computational tools to solve problems associated with developing and sustaining a civilised community. Central to the current and future civil engineering profession is the core issue of 'sustainability'.

Current Programme Outline

The course is designed in a modular format to facilitate integration with other engineering and built environment courses. It will be offered in the full-time mode but the modular structure enhances the flexibility in the methods by which the course can be delivered and taken. The full-time course is of two years duration with each year divided into two semesters. Apart from the second semester of the first year, which incorporates a 'placement', the remaining three semesters are fully taken at WIT. From an operations perspective the terminal examinations are normally taken at the end of each semester in December and May.

Semester 5	Semester 6
Structural Analysis Civil Engineering Mathematics 6 Statistics for Scientists Geotechnical Engineering 1 Construction Technology Systems Clean Energy Technologies	Mathematical Modelling Research Methods Energy Performance of Buildings SCE Placement
Semester 7	Semester 8
Structural Analysis & Design Industrial Placement 2 Hydraulics Project & Corporate Management Sustainable Energy	Structural Design Dissertation Geotechnical Engineering 2 Hydrology for Sustainability Professional Practice Innovative Technologies

Industrial Placement

It is expected that the BEng [Honours] in Sustainable Civil Engineering will be well regarded by industry, both in Ireland and internationally. Having a civil engineering qualification that has sustainability as its core theme should enable graduates to undertake a variety of design and construction roles in the future civil engineering industry.

Follow on Study

The graduates from the BEng [Honours] in Sustainable Civil Engineering will be equipped with the necessary skills to undertake post-graduate studies (NQAI Levels 9 and 10) and Continuous Professional Development (CPD) activities. These studies include taught courses such as the MSc in Construction Project Management at WIT or MEng/PhD Research.

Applications

ADVANCED Applications are invited from graduates of NQAI Level 7 Civil Engineering programmes in Ireland with either

- An average of 70% or greater in the Mathematics modules/subject or
- That have passed the relevant Mathematics Entry Examinations held at WIT in August.

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Course Code: WD178

Course Level: 8

Duration: 2 year add on

Contacts

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