

## FREQUENTLY ASKED QUESTIONS

### What is the advantage of choosing the Common Entry?

The Common Entry gives the student an opportunity to discover more about the various fields of engineering and to identify the engineering profession which is best suited to them. Entry to Year 2 of the BEng (Honours) programme of their choice, from the list identified, is guaranteed for Common Entry students who successfully complete the one year programme – there are no quotas or limits on the number of students who may enter Year 2 of a particular discipline.

The Common Entry offers those who may not have had the opportunity to take Higher Level Mathematics at Leaving Certificate, or those who may have opted out of Higher Level Mathematics during the Leaving Certificate programme, a second opportunity to attain the mathematical skills and competences required for BEng (Honours) Engineering Studies.

### If I did not study Honours Mathematics in the Leaving Certificate will I struggle on the courses given that all course streams would normally require Honours Mathematics?

The Mathematics modules in Year 1 are specifically tailored to address the topics which underpin subsequent BEng (Honours) programme studies; this gives a very specific focus to student learning. While the Common Entry students undertake the same Mathematics modules as the Year 1 BEng (Honours) students, an additional module of Mathematics is undertaken in the inter-semester period in January each year. This provides the Common Entry students with an additional learning opportunity in advance of the Semester 2 Mathematics module. Experience has shown that students who do not have the usual BEng (Honours) minimum HC3 requirement do succeed in the Common Entry programme if they have also taken Leaving Certificate Physics and/or Chemistry and are committed to their Year 1 studies.

Students who do not have the HC3 Maths requirement, or equivalent, and who do not have Leaving Certificate Physics or Leaving Certificate Chemistry may find the programme particularly challenging and additional work effort and application is required of these students if they are to succeed.

## ENGINEERING (HONOURS) (Common Entry)

Engineering is the practical application of science and mathematics to solve problems, and it is everywhere in the world around you. Engineering technologies improve the ways that we communicate, work, travel, stay healthy, and entertain ourselves.

Engineers are problem-solvers who want to make things work more efficiently, quickly, and less expensively. From computer chips and satellites to medical devices and renewable energy technologies, engineering makes our modern life possible.

The Common Engineering Honours Entry Scheme is a one year programme for students interested in engineering as a career, but who may be unsure of which discipline to follow.

Please note: successful completion of the Common Engineering Entry Year ensures guaranteed entry to Year 2 of BEng (Honours) programme of choice from the list given.



### ENQUIRIES TO

Des Walsh  
Department of Civil, Structural & Environmental Engineering  
T: 021 432 6765/6203  
E: [des.walsh@cit.ie](mailto:des.walsh@cit.ie)

[www.cit.ie](http://www.cit.ie)



## ENGINEERING (HONOURS) (COMMON ENTRY)

Course Code  
CR 500



## ABOUT THE COURSE

The Common Engineering Honours Entry Scheme is a one year programme for students interested in engineering as a career, but who may be unsure of which discipline to follow.

Lectures are supplemented by tutorials, laboratory and fieldwork. There is continuous assessment of reports and projects in addition to end of semester module examinations.

The one year programme meets the first year requirements for an honours engineering degree programme and allows the learner to sample the various engineering disciplines on offer at CIT before selecting a second year programme.

## BRIEF ANALYSIS OF ENGINEERING DISCIPLINES

**Chemical and Biopharmaceutical Engineering** involves turning raw materials into finished products. The finished products end up in pharmacies, supermarkets, petrol stations and many other places and the design, operation and management of these products are the responsibility of the Chemical and Biopharmaceutical Engineer.

**Mechanical Engineering** involves the design, manufacture and operation of products that have motion or have internal moving parts including Formula 1 cars, machines and aircraft to major power plants and process equipment facilities.

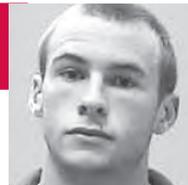
**Biomedical Engineering** combines engineering knowledge with an appreciation of the functioning of the human body, covering topics from the design and development of artificial joints, to equipment for medical diagnosis and treatment, to the implanting of biomaterials or biomedical devices in the human body.

**Structural Engineering** is the science and art of designing civil engineering facilities so that they can safely resist the forces to which they are subjected. All structures from bridges to buildings, harbours to airports must be able to meet these requirements. In addition to the technical skills required for the above work a Civil Engineer will also have competencies in related fields such as project and asset management, and health and safety.

## STUDENT QUOTES

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### TIMOTHY HARRINGTON



“The Engineering (Common Entry) programme gave me the opportunity to see all four engineering disciplines first hand, through the various modules on offer, interaction with the lecturers and site visits. This helped me decide which discipline suited me the best.”

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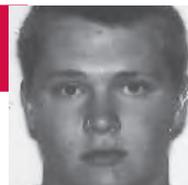
### WILLIAM MADIGAN



“The Engineering Common Entry programme in CIT is excellent as it helped me choose which engineering discipline was right for me. Before I started, I did not know the difference between the various disciplines but this course and staff helped me to make an informed decision.”

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### DARREN DAWSON



“Although I did not have higher level Mathematics for the Leaving Certificate, through the Common Entry Engineering programme in CIT I was able to enrol on a four year accredited engineering programme. I am now in final year and looking forward to getting my Level 8 Degree.”

## COURSE PROGRAMME

<http://modules.cit.ie/cr500>

CIT has developed this website which gives full details of all modules for this course. The website also has information on recommended textbooks, average weekly workload, assessments, and exams.

Students with lower than a Grade C in Honours Leaving Certificate Mathematics are required to take a Mathematics bridging course between Semester 1 and Semester 2 (in January).

### YEAR ONE

#### Semester 1 (Sept – Dec)

Creativity, Innovation & Teamwork,  
Engineering Physics 1  
Engineering Chemistry  
Engineering Maths 101  
CAD & Design 1  
Engineering Mechanics

#### Semester 2 (Feb – May)

Engineering Maths 102  
Engineering Computing 1  
Material Science & Engineering  
**Electives (Choose 3)**  
Intro Industrial Biotechnology  
Process Engineering Labs 1  
Applied Anatomy and Physiology  
Biomedical Devices  
Introductory Land Surveying  
Engineering Mechanics 2  
Introductory ThermoFluids  
CAD & Design 2

On successful completion of Year 1, students can enter the second year programme of their choice from any of the following Honours Engineering Degrees:

- CR 105 BEng (Honours) in Chemical and Biopharmaceutical Engineering  
[www.cit.ie/course/CR105](http://www.cit.ie/course/CR105)
- CR 108 BEng (Honours) in Mechanical Engineering  
[www.cit.ie/course/CR108](http://www.cit.ie/course/CR108)
- CR 109 BEng (Honours) in Structural Engineering  
[www.cit.ie/course/CR109](http://www.cit.ie/course/CR109)
- CR 520 BEng (Honours) in Biomedical Engineering  
[www.cit.ie/course/CR520](http://www.cit.ie/course/CR520)

Applicants are advised to visit each of the course sites for detailed descriptions.