





### **UCD ENGINEERING (DN150)**

Bachelor of Science or Bachelor of Engineering (Honours) or Master of Engineering (Integrated ME)

BSc (Engineering Science) (NFQ Level 8) or BE (Hons) (NFQ Level 8) or Integrated ME (NFQ Level 9)

### WHAT IS UCD ENGINEERING?

UCD DN150 Engineering is the entry point to all of the Engineering programmes at UCD. We have the widest range of degree choices in the country and, after completing the common first year, you can choose your second year pathway from one of the following:

- Biomedical Engineering
- · Chemical & Bioprocess Engineering
- Civil Engineering
- Electrical or Electronic Engineering
- Mechanical Engineering
- Structural Engineering with Architecture

Your chosen area of specialisation in second year will also offer routes to further branches of engineering at Masters level in year 4 and 5.

### WHAT WILL I STUDY IN FIRST YEAR?

Your first year in UCD will see you immersed in a completely new life from both an educational and a social perspective. Educationally, the first year is a common year which allows you gain an understanding of the many engineering disciplines available before you commence your specialisation in second year.

Your first year will be spent intensively learning and discovering how to solve problems through Physics, Chemistry, Mathematics and Computing, as well as gaining exposure to engineering subjects such as Mechanics, Energy Engineering, Creativity in Design and Electronic or Electrical Engineering.

UCD Engineering students also have the option to take elective modules throughout UCD on the Horizons programme.

### **CAO Points Range 2018**

509\*- 625

### **Length of Course**

3 Years (BSc) 4 Years (BE) (Hons) 5 Years (Integrated ME)

### Places 260

### **Entry Requirements**

- English
- Irisl
- Mathematics (Min H4 in LC or equivalent)
- One laboratory science subject (Min H6 in LC or equivalent) (Chemistry, Physics or Biology is recommended)
- Two other recognised subjects

### **Leaving Certificate**

You must obtain a minimum of Grade H5 in two subjects and a minimum of Grade 06/H7 in the remaining four subjects

### A-Level/GCSE

see www.ucd.ie/myucd/alevel

Level 5/6 FETAC Entry Routes None

Level 6/7 Progression Entry Routes Yes, see www.ucd.ie/myucd/hetac

### **Mature Entry Route**

Yes

## WHAT MAKES A GOOD UCD ENGINEER?

UCD engineers have inquisitive minds and love to solve problems – and it is their creativity that sustains them when times get tough. Sometimes the tried and trusted solutions won't work and you'll have to come up with a new way of solving a problem, be it a health issue, a design issue, an energy issue, or a business issue. You will be the person that people will look to for answers and a UCD engineer will try to find a creative way of arriving at a solution that meets the needs of all parties.

## WHAT ARE THE CAREER OPTIONS FOR ENGINEERING GRADUATES?

From running a company to designing an industrial plant, from working in a multinational like Google to visiting Africa to work on irrigation systems, the opportunities that will be available to you as a UCD engineering graduate are as wide as they are varied. Whether your career path is to make a million by the time you are 25 or help save the world, you won't go too far wrong with engineering! It is not only a profession, it is a discipline, which will equip you with a mindset and skill set that will make you an asset on every career path you decide to take, and to any company that employs you.

# WHAT ARE THE GRADUATE STUDY OPTIONS FOR AN ENGINEERING GRADUATE?

The options for UCD engineering graduates are numerous. In UCD there are taught Masters programmes including:

- · Biomedical Engineering
- · Biosystems & Food Engineering
- · Chemical & Bioprocess Engineering
- Civil, Structural & Environmental Engineering
- · Electrical Energy Engineering
- · Electronic & Computer Engineering
- · Energy Systems Engineering
- · Engineering with Business
- Materials Science & Engineering
- · Mechanical Engineering
- Optical Engineering
- · Structural Engineering with Architecture

There are also research programmes available to students at both Master's and PhD level. The graduate opportunities in UCD are fantastic!

### WILL STUDYING ENGINEERING AT UCD NARROW MY CAREER OPTIONS IN THE FUTURE?

Absolutely not. Your engineering qualification from UCD will offer you great flexibility. The skills and knowledge you will gain in UCD are highly transferable and offer you a wide range of career options within the engineering profession and outside it, for example in business, finance or consulting.



**Kevin Duffy,**Student

Although I came in to the engineering programme without a notion as to what discipline to pursue, with the help of the support services available in UCD, I elected for the Civil Engineering degree and haven't regretted it since. The course has allowed me to develop strong relationships with the students and staff alike. Some of the highlights for me were embarking on the Erasmus programme for a semester and spending a Summer internship abroad. I continued on to the Masters programme and completed my professional work placement in the Netherlands with an offshore geotechnical company called Fugro which involves a lot of travel and hands-on practical work, something that attracted me to civil engineering in the first place. I'm most certainly not looking forward to leaving UCD!



**Sósanna Ní Dhubháin**Graduate

I always dreamt of a career in motorsport and now, thanks to UCD, I am living my dream! My mechanical engineering degree at UCD was a fantastic springboard for a career in F1 car design. The course offered a wide and varied selection of classes. I especially liked the materials & design modules. I now apply everything I learned at UCD in designing carbon fibre parts as a senior composite designer for Force India F1 Team. Throughout my years as a student, the staff at UCD provided support and encouragement that really helped me in my professional journey.



**Year/Stage 1**Explore your options

**Core Modules:** Chemistry, Mathematics, Physics, Creativity in Design, Electrical/Electronic, Energy Engineering, Engineering Computing, and Mechanics

Option Modules: Chemical Engineering Process Principles,

Computer Science for Engineers I,

Design and Materials, The Engineering and Architecture of Structures.

In-Programme Electives: Biosystems Engineering Design Challenge, Energy Challenges, Introduction to Civil and Environmental Engineering, and Robotics Design Project



Years/Stages
2 & 3
Choose your
pathway

Choose one of the following Engineering pathways: Biomedical;

Chemical & Bioprocess; Chemical with Biochemical Minor; Civil; Electrical/Electronic; Mechanical or Structural Engineering with Architecture.

**Optional Study Abroad on Exchange** 



### Years/Stages 4 & 5

Focus on your area(s) of specialisation

Entry to master's degree programmes is subject to entry requirements.

### BE (4 years) Bachelor of Engineering

Specialise in one of the following areas: Biomedical, Chemical & Bioprocess, Chemical with Biochemical Minor, Civil, Electrical, Electronic, or Mechanical

#### ME (5 years) Master of Engineering

**Specialise in one of the following areas:** Biosystems & Food; Biomedical; Chemical & Bioprocess; Civil, Structural

& Environmental; Electrical Energy; Electronic & Computer; Energy Systems; Engineering with Business; Materials Science & Engineering; Mechanical, Optical Engineering or Structural Engineering with Architecture Professional Work Experience

### WHY ENGINEERING AT UCD?



UCD is Ranked Among the Top 1% of Universities Worldwide



World Class Engineering Education



Widest Range of Engineering Degree Options



6-8 Month Internships on ME Programmes



Links with Major Employers



Access to Non-Engineering Modules (Horizons)



Variously Accredited by Engineers Ireland, IOM3 & IChemE



### **UCD ENGINEERING AND ARCHITECTURE PROGRAMME OFFICE**

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