



VIRTUAL
ENGINEERING
OPEN EVENING

11th January 2022
Register at
www.myUCD.ie



UCD
ENGINEERING

**UNDERGRADUATE
COURSE ENTRY 2022**



UCD ENGINEERING (DN150)

BSc (Engineering Science) (NFO Level 8) or BE (Hons) (NFO Level 8) or Integrated Master of Engineering (NFO 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 Master's 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 and Electrical Engineering.

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

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.

Minimum CAO Points Required

2020: 521

2021: 565*

Length of Course

3 Years (BSc)

4 Years (BE) (Hons)

5 Years (Integrated ME)

Places

265

Entry Requirements

- English
- Irish
- Mathematics (Min H4 in LC or equivalent)
- One laboratory science subject (min H6 in LC or equivalent) (Physics, Chemistry, Biology and Agricultural Science are accepted)
- Two other recognised subjects

A-Level/GCSE

Yes, see www.ucd.ie/myucd/alevel

Level 6/7 Progression Entry Routes

Yes, see www.ucd.ie/transfer

Mature Entry Route

Yes, see www.ucd.ie/maturestudents

** Not all on this points score were offered places*

CAN I DO AN INTERNSHIP AS PART OF THE DEGREE?

The ME degrees in Engineering at UCD all incorporate a Professional Work Experience (PWE) internship module, designed to integrate students' academic and career interests with practical work experience for a period of 6-8 months. The College of Engineering & Architecture has two dedicated Internship Managers, who help prepare the students for their internship in conjunction with UCD Careers Network's Career & Skills Consultants. ME students completed internships with 100 different employers in the past academic year. Among those employers are: AbbVie, Accenture, AECOM, Arup, BD Medical, Boston Scientific, Energia, ESB, EY, Glanbia, Intel, Jacobs, Mainstream Renewable Power, Medtronic, Meinhardt (London), Mercury, Microsoft, Pfizer, PM Group, RPS, Stryker, Thornton Tomasetti (New York) and Lawrence Berkeley National Laboratory (California).

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 Master's programmes including:

- Biomedical Engineering
- Biosystems & Food Engineering
- Chemical & Bioprocess Engineering
- Civil Engineering (dual degree with Columbia University)
- Civil, Structural & Environmental Engineering
- Electrical Power Engineering
- Electronic & Computer Engineering
- Energy Systems Engineering
- Engineering with Business
- Manufacturing Engineering (double degree with EIT)
- 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.



Aileen McCabe
Electronic
Engineering
Graduate

"When I was in school, I was attracted to engineering because I loved maths and physics and wanted to apply these in real world applications. After getting the opportunity to try out all the disciplines of engineering in the first year at UCD, I was surprised that I loved electronic engineering the most. I had no experience in coding or circuits before college but that does not matter as you can learn it all as you go. I would highly recommend anyone thinking of engineering to choose UCD. It offers students a very high standard of education and really stretches the students to achieve their potential. Having completed the undergraduate degree, there was no shortage of jobs to choose. I chose to join Qualcomm as a Hardware Engineer. Here, I help to design cutting-edge chips that are in everything from 5G phones to cars and I really love my job."



Conor Flannery
Structural
Engineering with
Architecture
Student

"I always had a keen interest in Maths, problem solving and creative design when I was in school. Structural Engineering with Architecture at UCD has definitely allowed me to explore and further develop these skills. The course is centred around Structural Engineering with elements of Architecture intertwined. Modules require problem solving with mathematical skills and involve design challenges, model making and creative thinking. The work placement in fourth year is a brilliant chance to gain valuable skills and experiences in a real business and commercial environment. I had the opportunity to do mine in Edinburgh as a Bridges and Structures Engineer, where I got to apply my technical knowledge to real life projects while working with a great team of engineers."



Year/Stage 1

Explore your options

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



Option Modules: Biomedical Sciences, Chemical Engineering Process Principles, Computer Science for Engineers, Materials in Society, The Engineering & Architecture of Structures, Biosystems Engineering Design Challenge, Introduction to Civil & Environmental Engineering, Energy, Climate Change & Policy, 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 or Exchange in 3rd Year



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 Engineering; Civil, Structural & Environmental; Electrical Power Energy; Electronic & Computer; Energy Systems; Engineering with Business; Manufacturing; Materials Science & Engineering; Mechanical, Optical Engineering or Structural Engineering with Architecture. **Professional Work Experience in 4th Year**

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)



Various Accredited by Engineers Ireland, IOM3 & IChemE



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