



ENGINEERING
OPEN EVENING

15th January 2025
Register at
www.myUCD.ie



UCD ENGINEERING

**UNDERGRADUATE
COURSE ENTRY 2025**



UCD ENGINEERING (DN150) BSc (Engineering Science) (NFQ Level 8) or BE (Hons) (NFQ Level 8) or Integrated Master of Engineering (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
- Sustainable Systems Engineering

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 to 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 WILL MY TIMETABLE LOOK LIKE?

The number of hours spent in lectures, practical labs and tutorials each week varies, but you could expect to have approximately 24 contact hours per week in first year. You will have approximately 13 hours of lectures, 9 hours of labs and 2 hours of tutorials each week. You will also need to spend additional time working on coursework projects and assignments, both in teams and on your own.

Minimum CAO Points Required

2024 - 568 (Round 1)

2023 - 567 (Round 1)

Length of Course

3 Years (BSc)

4 Years (BE) (Hons)

5 Years (Integrated ME)

Leaving Cert Entry Requirements

- English (O6/H7)
- Irish (O6/H7)
- Mathematics (min H4)
- One laboratory science subject (min H6)
Physics, Chemistry, Biology, Agricultural Science and Physics & Chemistry (joint) are accepted
- Two other recognised subjects (O6/H7)

HEAR/DARE Entry Routes

Yes, see www.myucd.ie/dare or www.myucd.ie/hear

Other School Leaving Examinations

Yes, see www.ucd.ie/admissions

Level 5/6 QQI-FET Entry Route

None

Level 6/7 Progression Entry Route

Yes, see www.ucd.ie/transfer

Mature Entry Route

Yes, see www.ucd.ie/maturestudents

University Access Course

Yes, see www.myucd.ie/universityaccess

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, Structural & Environmental Engineering
- Electrical Power Engineering
- Electronic & Computer Engineering
- Energy Systems Engineering
- Engineering with Business
- Materials Science & Engineering
- Mechanical 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.



Siobhan Surban Black Biomedical Engineering Student

Why did you choose to study engineering at UCD? UCD offers the broadest range of engineering disciplines, and the Horizons programme allows me to pursue my passions outside of engineering, including design and languages. The vibrant campus life has something for everyone: dance classes, sports, karaoke nights at the campus bar, a 24-hour bus to town, and free gyms. But mostly, the welcoming atmosphere I felt on the Open Day made UCD feel like home, and I knew I'd find genuine friends here.

How has your experience of studying Biomedical Engineering been so far? I've really enjoyed my experience; I love the balance between theoretical knowledge and the practical work we get to do. A highlight for me was working in the labs, where I got hands-on experience with cutting-edge technology and equipment. The professors are incredibly supportive and knowledgeable, making the learning process challenging and interesting. Even with the large size of our course, there's a great sense of community and teamwork among fellow engineers.

Are you involved in any student societies? I've joined events with various societies, from engineering and language societies to the dance society. I've especially loved the Engineering World Health society. EWH has an outreach programme for schools, and their Design Competition Team workshop solutions for a global health problem and competes internationally, winning first place at Nova UCD in 2023. We gain practical experience taking a project from concept to completion while meeting like-minded individuals and industry experts.

What would you like to do in the future? My goal is to work in research and development, focusing on creating medical devices and technologies that can improve patient outcomes and quality of life. I've enjoyed designing and CAD modelling this year, so working in an area that includes those could be interesting. Biomedical engineering is incredibly diverse, and I'm honestly open to exploring anything right now. The range of opportunities is endless, including developing prosthetics, medical imaging devices, biomaterials for medical implants, or even robotic systems for surgery.



Year 1

Explore your options

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

➤ **Option Modules:** Introduction to Biomedical Engineering, 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 2 & 3

Choose your pathway

➤ **Choose one of the following Engineering pathways:** Biomedical; Chemical & Bioprocess; Chemical with Biochemical Minor; Civil; Electrical/Electronic; Mechanical, Structural Engineering with Architecture or Sustainable Systems Engineering.

Optional Study Abroad or Exchange in 3rd Year.



Years 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 Power Energy; Electronic & Computer; Energy Systems; Engineering with Business; Materials Science & Engineering; Mechanical, 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)



Variously Accredited by Engineers Ireland, IOM3 & IChemE



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