

ELECTRONIC ENGINEERING OR ELECTRICAL ENGINEERING

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



At school, I was attracted to engineering because I love maths and physics and wanted to apply these in the real world. After getting the opportunity to try out all the disciplines of engineering in my first year, I was surprised that I loved electronic engineering the most. I had no experience in coding or circuits but it didn't 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 high standard of education and 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.

- Aileen McCabe, Graduate.

CAO CODE: DN150

CAO Points Range 2020: 520-625

Length of Course: **3 Years (BSc (Hons))+ 2 Years (ME) or 4 Years (BE)**

DN150 Places: **265**

General Entry Requirements

See pages 195 - 203

Leaving Cert Subject Entry Requirements

- H4 in Mathematics
- H6 in a laboratory science and
- O6/H7 in English, Irish and two other recognised subjects

Other School Leaving Examinations

See www.ucd.ie/admissions

Level 5/6 QQI-FET

None

Level 6/7 Progression Routes

Yes, see www.ucd.ie/transfer

Mature Entry Route

See www.ucd.ie/maturestudents

Special Entry Recommendations

It is recommended that the Laboratory Science subject should be one of Chemistry, Physics or Biology.

Why is this course for me?

Electrical and Electronic Engineers have revolutionised the way we live today.

As an electronic or electrical engineer, you can lead the way in designing technologies that will shape our world, using creative ways to generate and handle electricity and information.

Electronic engineers have developed the technologies we use for communication, data analytics, eHealth, smart homes and vehicles, entertainment and many other things, including smartphones and the Internet. Electrical engineers are also developing new ways to solve the world's energy problems by harnessing renewable energy sources like wind and ocean energy.

What will I study?

First Year

Engineering students follow a common first year. Modules include:

Chemistry · Creativity in Design · Electrical/Electronic Engineering · Energy Engineering · Engineering Computing · Mathematics · Mechanics · Physics

Second to Fifth Year

Students on this degree follow the same pathway until their third year, when they specialise in either Electrical or Electronic Engineering. Modules include:

Electrical & Electronic Circuits · Electromagnetics · Digital Electronics · Electrical Energy Systems · Communication Systems · Electromagnetic Waves · Signal Processing · Analogue Electronics · Power System Engineering · Radio-Frequency Electronics · Neural Engineering · Renewable Energy Systems · Power System Operation.

A student's week includes attending lectures and tutorials, as well as participating in laboratory-based assignments and undertaking independent study.

A combination of end-of-trimester written examinations and continuous assessment is used. In your final year, you will undertake a substantial project, involving a combination of research and design in your area of interest. This will be assessed using reports, presentations and an interview.

Career & Graduate Study Opportunities

You will be involved in projects that make a difference to the world, e.g. harnessing new sources of energy or developing advanced digital technologies. Exciting opportunities exist in areas such as designing new means of communication, novel transportation systems or the next generation of multimedia devices, studying the human brain, working with electrical energy systems or developing new imaging techniques.

You can also pursue graduate study internationally or as part of a UCD Master's degree, e.g. ME in Biomedical Engineering, ME in Electronic & Computer Engineering, ME in Electrical Power Engineering, ME in Engineering with Business or ME in Optical Engineering.

International Study Opportunities

Students have the opportunity in their third year to spend either one or two trimesters studying abroad in a partner University. There are options to study in countries such as Australia, Canada, France, Germany, Singapore, Switzerland and USA.

Professional Work Experience (PWE)

Professional Work Experience (PWE) is incorporated into the ME programmes. Six- to eight-month internships (the majority of which are paid) have included the following employers: Accenture, Analog Devices, Eirtech Robotics, EirGrid, ESB, FoodMarble, Intel, Mainstream Renewable Power, Microsoft, Workday and Xilinx.

Other Courses of Interest:

Mathematics	124
Computer Science	136
Computer Science with Data Science	137
Biomedical Engineering	183

www.ucd.ie/myucd/eng

UCD Engineering and Architecture College Office
+353 1 716 1868
eng.arch@ucd.ie
Instagram/Facebook/Twitter: @MyUCD