

"I was originally attracted to UCD Engineering due to its national and international standing, as well as the many engineering disciplines the school offers. I chose to specialise in Electronic and Electrical Engineering for my bachelor's and later went on to further specialise in Electrical Energy Engineering for my master's degree, from which I graduated in 2018. My 5 years at UCD has been an amazing journey, in which I have learned about the exciting technologies that shape the electrical grid and energy industry, and the cutting-edge research that will power our future power systems. This allowed me the opportunity to conduct exciting research for my master's thesis, which has led to a job as an Electrical Markets Engineer with the National Renewable Energy Laboratory in the United States."

Daniel Levie Graduate



Electrical Power Transmission Network.

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. Such engineers use creative ways to generate and handle electricity and information. They have developed the technologies we use to listen to music and communicate with one another, including smartphones and the Internet. Electrical and electronic 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-semester written examinations and continuous assessment is used. In your final year, you will undertake a substantial project, involving some combination of research and design in some area of interest. This will be assessed using reports, presentations and an interview.

Career & Graduate Study Opportunities

You could 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 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 Energy Engineering, ME in Engineering with Business or ME in Optical Engineering.

International Study Opportunities

Opportunities to date have included:

- McGill University, Montreal, Canada
- National University, Singapore
- University of California, USA
- University of Queensland.

Professional Work Experience

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

Electronic Engineering or Electrical Engineering

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

Engineering NUS1

Length of Course 3 Years [BSc] [Hons]
+2 Years [ME] or 4 Years [BE]

Guideline Entry Requirements

IB- International Baccalaureate Diploma*
IB Total 34

Subject Requirements

Maths: 5 at Higher Level
Lab Science: 4 at Higher Level

Cambridge A Level [+ GCSE O Level]
ABBB / AAA / AAB+ CAS Level

Subject Requirements

Maths: A Level Grade C
Lab Science: A Level Grade D

Other Examinations

See www.ucd.ie/international

International Foundation Year

Yes. See www.ucdisc.com

Internship Opportunity

Yes

**please note IB requirements are under review at the time of printing.*
See www.ucd.ie/international/ib

Other courses of interest

Engineering	→182
Biomedical Engineering	→184
Computer Science	→136

