

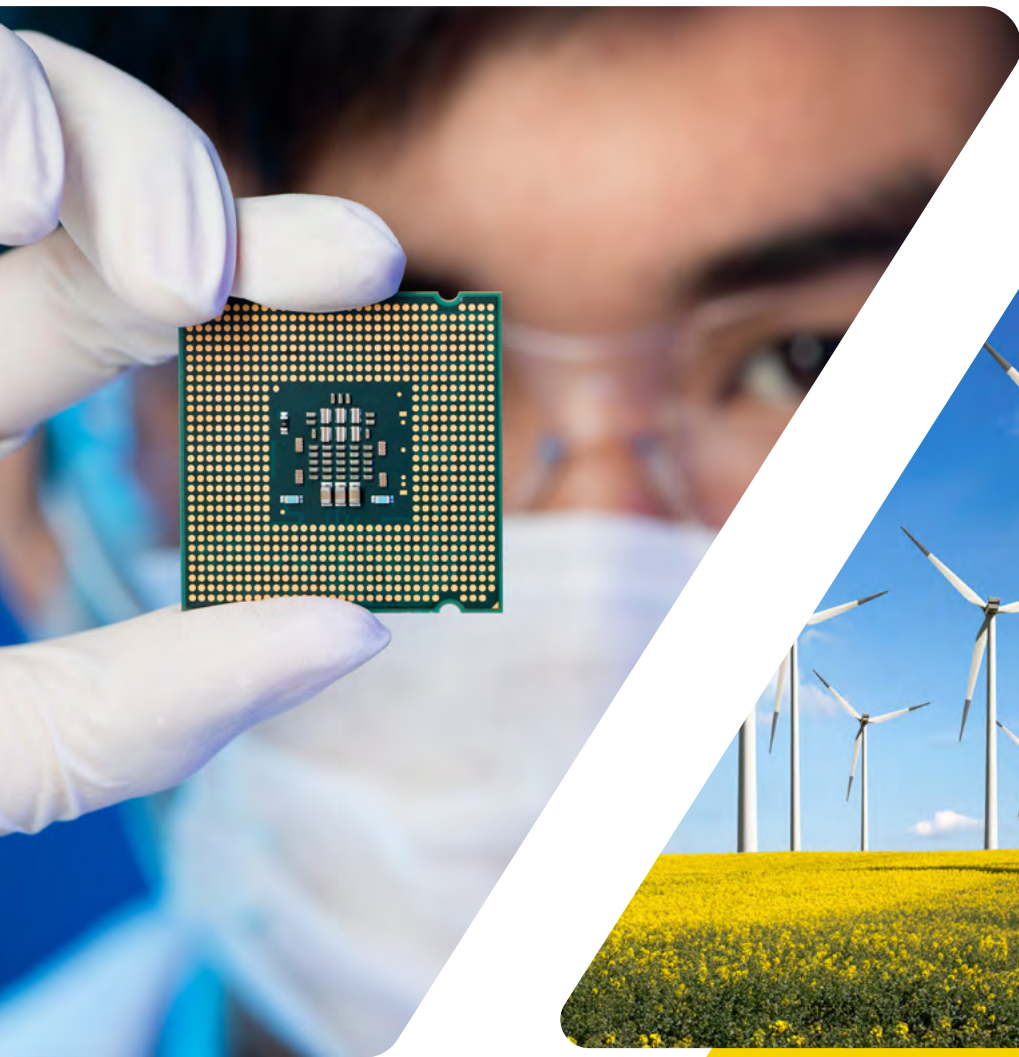


UCD College of Engineering
and Architecture

UCD Engineering Engineering Your Future

DN150 Engineering

DN140 Structural Engineering with Architecture



ENGINEERING OPEN EVENING

Wednesday, 13 January 2016 – 6.00pm
Visit www.myUCD.ie to register



STUDYING UCD ENGINEERING



Year/Stage 1 Explore your options

Core Modules: Physics, Chemistry, Mathematics, Energy Engineering, Mechanics, Electrical/Electronic, Creativity in Design
 Option Modules: Chemical Engineering Process Principles, Design and Materials, Computer Science for Engineers
 In-Programme Electives: Biosystems Design Challenge, Concepts in Engineering, Biopharmaceuticals Industry in Ireland, Energy Challenges, Understanding Digital Devices



Years/Stages 2 & 3 Choose your pathway

Choose one of the following Engineering pathways: Biomedical, Chemical & Bioprocess, Civil, Electrical/Electronic or Mechanical
 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, Civil, Electrical, Electronic, Energy Systems or Mechanical

ME (5 years) Master of Engineering
 Specialise in one of the following areas: Biosystems & Food; Biomedical; Civil, Structural & Environmental; Electrical Energy; Electronic & Computer; Energy Systems; Engineering with Business; Materials Science & Engineering or Mechanical
 Optional Industrial Placement

Conversion/Complementary Courses
 Graduate Medicine, MSc Business

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-Month Internships on ME Programmes



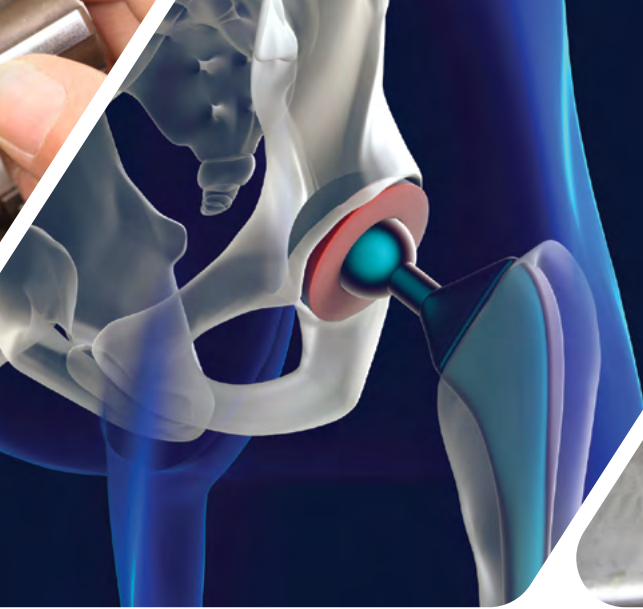
Links with Major Employers



Access to Non-Engineering Modules (Horizons)



Variously Accredited by Engineers Ireland, IOM3 & IChemE



UCD ENGINEERING (DN150)

Bachelor of Science and Master of Engineering or Bachelor of Engineering (Honours)

BSC (Engineering Science) (NFO Level 8) leading to ME (NFO Level 9) or BE (HONS) (NFO Level 8)

WHAT IS UCD ENGINEERING?

UCD DN150 Engineering is the entry point to the majority 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 and Bioprocess Engineering
- Civil Engineering
- Electrical or Electronic Engineering
- Mechanical Engineering

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. 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 spend intensively learning and discovering how to solve problems through physics, chemistry and mathematics, as well as gaining exposure to engineering subjects such as Mechanics, Energy, 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 2015

505 – 625

Length of Course

3 Years (BSc) (Hons) + 2 Years (ME) or 4 Years (BE)

Places

246

Entry Requirements

- English
- Irish
- Mathematics (Min HC3 in LC or equivalent)
- One laboratory science subject (Min HD3 in LC or equivalent) (Chemistry, Physics or Biology is recommended)
- Two other recognised subjects

Leaving Certificate

Passes in six subjects including those shown above, of which two must be minimum HC3

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 an engineering graduate from UCD 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 professional taught Masters programmes including:

- Biomedical Engineering
- Biosystems and Food Engineering
- Civil, Structural & Environmental Engineering
- Electrical Energy Engineering
- Electronic & Computer Engineering
- Energy Systems Engineering
- Engineering with Business
- Materials Science & Engineering
- Mechanical Engineering

There are also research Masters and PhD opportunities available to you. The graduate opportunities in UCD are fantastic!

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

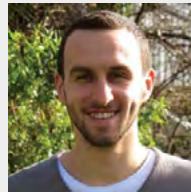
Absolutely not. Your engineering qualification from UCD will offer you great flexibility. The skills and knowledge you will gain in UCD are highly transferable and offer you a wide range of career options within the engineering profession and outside it, for example in business, finance or consulting.



Rebecca Dwyer Graduate

After enjoying maths, physics and chemistry in school and learning about the excellent facilities and

labs in UCD, I was eager to study engineering. The course has a really good balance of theoretical and practical work. I'm quite academic but I like the idea of being 'out and about' and doing projects, or learning something in the classroom and then putting it into practice in the lab. If you like what you're learning, it makes studying a lot easier. I love the atmosphere of the engineering building; the older students are so helpful with advice and they're really friendly. I don't necessarily have to 'be an engineer'. The skills that we learn, like technical report writing, research and writing essays on a scientific process, are so transferable that engineers tend to get headhunted for them. I did an internship in Goldman Sachs and I can already see the value of these skills that I'll have forever.



Ian Whelan Graduate

For as long as I can remember I always wanted to do Engineering, and that influenced my choice

of subject for the Leaving Cert. I did Maths, Applied Maths and Physics. I also did Art, which some people may find unusual but I found it really useful particularly in the design modules of the UCD Engineering degree. I chose to do Mechanical Engineering because I had a 'hands on' approach to all things mechanical (especially engines) while growing up, and I wanted to learn how and why things work the way they do. I'm currently employed by Ferrari in Italy, where I work on engine design and testing. I've worked really hard to make this dream of working on high-performance cars a reality and Mechanical Engineering in UCD has given me the platform.



STRUCTURAL ENGINEERING WITH ARCHITECTURE (DN140)

Bachelor of Science and Master of Engineering

BSc (Engineering Science) (NFO level 8) leading to ME (NFO level 9)

CAO Points Range 2015

430 – 605

Length of Course

3 Years (BSc) + 2 Years (ME)

Places

25

Entry Requirements

- English
- Irish
- Mathematics (Min HC3 in LC or equivalent)
- One laboratory science subject (Min HD3 in LC or equivalent) (Chemistry, Physics or Biology is recommended)
- Two other recognised subjects

Leaving Certificate

Passes in six subjects including those shown previously, of which two must be minimum HC3

A-Level/GCSE 2015

See www.ucd.ie/myucd/alevel

Level 5/6 FETAC Entry Routes

None

Level 6/7 Progression Entry Routes

None

Mature Entry Route

Yes

WHAT IS UCD STRUCTURAL ENGINEERING WITH ARCHITECTURE?

The Structural Engineering with Architecture degree at UCD is a two-part degree, with an initial three-year bachelor's degree followed by a two-year master's degree, focusing primarily on the design of structures. If you are interested in the beauty of architectural design, and you want to be the one who realises these designs by creating viable solutions that ensure structures stand the test of time, then this is the course for you. The programme's aim is to develop an appreciation for architecture coupled with the solid fundamentals of an engineering degree. This will enable graduates to challenge the traditional boundaries of structural design.

WHAT WILL I STUDY IN FIRST YEAR?

Sample modules for Structural Engineering with Architecture students include:

- Creativity in Design
- History & Theory of the Designed Environment
- Mathematics
- Theory & Design of Structures
- Design & Materials
- Energy Engineering

WHAT MAKES A GOOD UCD STRUCTURAL ENGINEER?

A strong creative flair, great problem-solving skills, and a love of architecture and buildings are the attributes that a good structural engineer requires. These skills are nurtured and developed through the DN140 – Structural Engineering with Architecture programme at UCD.

WHAT ARE THE CAREER OPTIONS FOR A UCD STRUCTURAL ENGINEERING WITH ARCHITECTURE GRADUATE?

The ME in Structural Engineering with Architecture is fully accredited by Engineers Ireland and recognised internationally. Graduates can find employment in Ireland and abroad in areas such as:

- Engineering consultancy
- Construction management
- Project management and planning
- Management consultancy and finance

WHAT ARE THE GRADUATE STUDY OPTIONS FOR A STRUCTURAL ENGINEERING WITH ARCHITECTURE GRADUATE?

Upon successful completion of the five-year programme, you will obtain the award of Master of Engineering (ME). However, your education need not stop there – a multitude of taught or research graduate opportunities are available to you.



UCD ENGINEERING AND ARCHITECTURE PROGRAMME OFFICE

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