"After having decided to study Chemical & Bioprocess Engineering, I can honestly say that there was no better choice than UCD. The staff are both supportive and encouraging and the prioritisation of teaching standards is evident throughout all the classes. Throughout my four years in UCD, I was encouraged to challenge myself through project work and presentations, as well as work closely with my classmates to build friendships and working relationships that will last long into the future. Having now started work in Eli Lilly, I can see how these skills will stand to me as I further my career. "

Aisling Judge Graduate

Chemical Engineering students working on a bioreactor.

Chemical & Bioprocess Engineering

BE (Hons) (NFQ Level 8)

Engineering NUS1

Length of Course 4 Years [BE] +1 Year [ME]

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+ C AS 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*

At the end of Year 2, students can choose either the BE in Chemical & Bioprocess Engineering or the BE in Chemical Engineering with Biochemical Engineering Minor. Both can lead to the ME in Chemical & Bioprocess Engineering.

Why is this course for me?

Chemical & Bioprocess Engineering (CBE) deals with the ingenious transformation of matter and energy into products and services. More specifically, it addresses the design and operation of facilities needed to achieve this transformation in a technically, economically and environmentally acceptable manner.

Examples of products include petrochemicals, (bio)pharmaceuticals and nano-materials. Examples of services include energy supply (from carbon-based to renewable resources), clean air and CO_2-sequestration.

As a Chemical & Bioprocess Engineer, you'll use the sciences as the basis for understanding these transformations; you'll apply mathematical and engineering principles to realise them on the appropriate scale. If you seek invention, and want to work at the interface between the sciences, mathematics and engineering, with a broad and well-paid portfolio of career opportunities, strongly consider CBE.

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

Sample modules for Chemical & Bioprocess Engineering students include: Organic Chemistry for Engineers • Inorganic & Physical Chemistry for Engineers • Chemical & Bioprocess Engineering Measurement • Biotechnology for Engineers • Computing in Chemical & Bioprocess Engineering • Chemical & Bioprocess Reaction Engineering • Chemical & Bioprocess Engineering Thermodynamics • Commercial Pharmaceutical & Bioprocessing Technology • Chemical & Bioprocess Engineering Design • Professional Engineering (Finance) • Environmental Engineering • Advanced Separation Processes • Advanced Experimental Design.

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

A combination of end-of-semester written examinations and continuous assessment is used, culminating in the submission of advanced research and design projects.

Career & Graduate Study Opportunities

UCD has the oldest, largest and most research-active School of Chemical & Bioprocess Engineering in Ireland, and is benchmarked competitively against the top schools in Europe and abroad. In addition, our programme is professionally accredited to Master's level by the Institution of Chemical Engineers (IChemE). All of this translates to our graduates being among the best-paid engineering professionals and sought after for employment in sectors from chemical to (bio)pharmaceutical and from energy to consultancy and design. We offer taught and research Master's and PhD opportunities, and our graduates also enter Master's and PhD programmes in leading international universities.

International Study Opportunities

Recent opportunities have included a year in:

- University of California, Santa Barbara, USA
- University of Connecticut, USA
- ENSIACET, Toulouse, France
- McGill University, Canada.

Professional Work Experience (PWE)

is incorporated in the ME Chemical & Bioprocess Engineering programme. Six- to eight-month internships (the majority of which are paid) have included the following employers: AbbVie, Alexion, APC, BMS, GSK, Irving Oil, Jacobs, Lilly, MSD, Pfizer and PM Group.

Other courses of interest

Engineering	→182
Biomedical Engineering	→184
Chemistry	→121
Chemistry with Biophysical Chemistry	→122

UCD Engineering & Architecture Programme Office
Engineering and Materials Science Centre, Belfield, Dublin 4

internationaladmissions@ucd.ie
+353 1 **716 1868**
facebook.com/**UCDEngArch**

www.ucd.ie/**international/study-at-ucd-global**