## Why DCU?

Our students enjoy an exceptional teaching and learning environment and our research facilities are among the best in Ireland. DCU is home to leading research centres in areas such as educational assessment and evaluation, additive manufacturing, bullying prevention and human rights, cellular biotechnology, neurotherapeutics, cellular biotechnology, sensors, plasma technology, biomedical diagnostics, machine translation, cloud computing and data analytics.

- DCU is committed to providing a highly supportive environment for our students along their journey of learning and personal development
- DCU pursues excellence in education and research as we seek to prepare the next generation of leaders, entrepreneurs and innovators for the global workplace
- DCU focuses on the broader student experience where you can combine advanced learning with a broad range of social, cultural and sporting activities

2018 saw the opening of our brand new DCU Student Centre. This purpose-built space offers exciting facilities for our students' cultural and global engagement and entrepreneurial activities, which, complemented by more than 120 DCU student clubs and societies, contributes to DCU's vibrant social environment.

DCU also boasts a superb sports complex, with a 25-metre swimming pool, state of the art libraries and the renowned performing arts centre, The Helix.

#### Find out more:

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# MEng in Mechanical and Manufacturing Engineering

Full-time (PAC Code: DC814)
Part-time (PAC Code: DC816)

MH NA HINNEALTÓIREACHTA AGUS NA RÍOMHAIREAC CULTY OF ENGINEERING AND COMPUTING



# MEng in Mechanical and Manufacturing Engineering

#### Introduction

The MEng in Mechanical and Manufacturing Engineering is an accredited Level 9 programme and its aim is to enable graduates to specialise in the widely established area of Mechanical and Manufacturing Engineering or to broaden their knowledge from their undergraduate studies.

This programme introduces the use of advanced Computer-Aided Engineering tools. By experiencing these advanced techniques and state of the art software the graduate will gain a vital edge. It allows the candidate to keep pace with the rapidly changing manufacturing and design sectors. In addition, students may also opt for a specialist Major in Sustainable Systems/Energy or Biomedical Engineering within this master degree programme.

#### Why this Course?

A modern, state of the art building with excellent teaching, laboratory, workshop and computing facilities.

Completion of the programme will open up improved employment opportunities. Provides an excellent preparation ground for PhD research.

#### **Course Structure**

This course is structured to inspire mechanical and manufacturing engineers to become competent and adaptable in the application of computer techniques in engineering. Its aim is also to enhance the student's knowledge, understanding and skills in Mechanical and Manufacturing Engineering.

Indicative programme content:

Semester 1	Semester 2
Research Practice and Methodology	Advanced Finite Element Analysis
Product Design, Development and Value Analysis	Computational Thermo-Fluid Dynamics
Surface Engineering and Tribology	Manufacturing Process Analysis and Tool Design
Manufacturing Systems Simulation	Entrepreneurship for Engineers
Major Specific Project (Semesters 1, 2, and Summer)	

#### **Careers**

The focused nature of the majors, combined with the continued growth of these important and very successful Irish industrial sectors, will ensure that you are in pole position to gain employment.

Graduates have worked as Research and Development Engineers, Product Design Engineers, Quality Engineers, Systems Engineers, Clinical Engineers and Product Development Engineers.

Others have progressed to PhD research and gained further advancement and recognition. The increasing harmonisation of European standards and US regulations also ensure that graduates will be employable worldwide.

#### **Minimum Entry Requirements**

The programme is delivered on a full-time or part-time basis.

For admission to the MEng in Mechanical and Manufacturing Engineering's varying entry routes, candidates must hold the following:

- Direct Entry: An award comparable to a second class honours grade 2,
   H2.2 from an Irish university with a minimum Pass Grade in Fluid Mechanics,
   Thermofluid Mechanics or similar module.
- Access Course: An award comparable to a second class honours grade 2,
   H2.2 from an Irish university.
- Qualifier B programme: An award comparable to a third class honours,
   H3 from an Irish university with a minimum Pass Grade in Fluid Mechanics,
   Thermofluid Mechanics or similar module. (The Access and Qualifier B are part-time programmes visa restrictions apply)

If the applicant has not yet completed their degree a conditional offer may be made on the basis of the most recent grades, pending the achievement of the minimum entry requirements.

International candidates who are non-native speakers of English must satisfy the University of their competency in the English language.

For further details of the English competency test, see: dcu.ie/registry/english.shtml

Applications are accepted on the PAC website at: pac.ie/dcu

### MEng in Mechanical and Manufacturing Engineering

PAC Code DC814

Duration **Continuous** 

NFQ Level **9** 

Delivery Mode
Full Time

PAC Code **DC816** 

Duration **Continuous** 

NFQ Level **9** 

Delivery Mode

Part Time