



University College Dublin  
Ireland's Global University



## ME MECHANICAL ENGINEERING (TWO YEARS FULL TIME)

The ME in Mechanical Engineering is a two-year professional engineering graduate degree. Graduates of the programme will be eligible for the title of Chartered Engineer (CEng). This programme is aimed at graduate Mechanical Engineers seeking to obtain a master's degree in Mechanical Engineering. You will gain advanced theoretical, conceptual and practical knowledge in the application of Mechanical Engineering. Emphasis is placed on the skills

required to generate new knowledge through research. This is achieved through independent and project-based learning while working with UCD academics and researchers on contemporary research projects.



### INDUSTRIAL PLACEMENT

This ME is professionally accredited by Engineers Ireland and recognised by the Washington Accord for Chartered Engineer status. The programme provides the opportunity for a 6-8 month industrial placement as well as an extensive research project.

### WHY STUDY AT UCD?



#### Professional Work Experience

6-8 month Professional Work Experience internship opportunity



#### Tradition

Established 1854, with 160 years of teaching and research excellence



#### Global profile

UCD is ranked in the top 1% of higher education institutions worldwide



#### Global community

Over 8,400 international students from over 140 countries study at UCD



#### Global careers

Degrees with high employability; dedicated careers support; two-year stay-back visa (for non-EU students)



#### Safety

Modern parkland campus with 24-hour security, minutes from Dublin city centre

## COURSE CONTENT AND STRUCTURE

**120 credits**  
taught master's

**65 credits**  
taught modules

**30 credits**  
professional work experience

**25 credits**  
research project

#### Core modules include:

- Computational Continuum Mechanics I
- Computational Continuum Mechanics II
- Control Theory AND / OR Process Control
- Engineering Thermodynamics III
- Fracture Mechanics
- Manufacturing Engineering II
- Mechanics of Fluids II, Mechanics of Fluids III
- Mechanics of Solids III
- Online Research Skills and Techniques
- Professional Engineering Management

#### Optional modules include:

- Advanced Composites and Polymer Engineering
- Advanced Metals and Materials Processing
- Advanced Vibrations
- Energy in Transport
- Energy Systems and Climate Change
- Heat Transfer
- Materials Science and Engineering
- Numerical Algorithm
- Technical Ceramics
- Technical Communications
- Quantitative Methods for Engineers



## CAREER OPPORTUNITIES

In the year immediately after graduation, this programme boasts a 95% success rate for graduates seeking employment or progression to research education. Mechanical engineers are at the centre of every area of technology. Graduates from this programme will be eligible to become fully qualified professional engineers, capable of working anywhere in the world at an advanced technical level or as a professional engineering manager. In the recent past, UCD ME Mechanical Engineering graduates have progressed to careers in industries such as: aerospace industry (e.g., European Space Agency), automobile industry (e.g., Denso, Ferrari, Ford, Jaguar, Land Rover), biomedical industry (e.g., Boston Scientific, Medtronic, Stryker), oil and gas (Cameron), and materials and manufacturing (Henkel, Kingspan).



### APPLY NOW

This programme receives significant interest so please apply early online at [www.ucd.ie/apply](http://www.ucd.ie/apply)

## ENTRY REQUIREMENTS

- A bachelor's degree in Mechanical Engineering with a minimum upper second class honour (NFQ level 8) or international equivalent and the appropriate prior learning.
- Applicants whose first language is not English must also demonstrate English language proficiency of IELTS 6.5 (no band less than 6.0 in each element), or equivalent.
- Students who do not meet the IELTS requirement may wish to consider taking the Pre-Sessional or Pre-Masters Pathway. Full details <https://www.ucd.ie/alc/programmes/pathways/>

## SCHOLARSHIPS

- Dedicated scholarships for non-EU students
  - Apply for University Scholarship [www.ucd.ie/global/study-at-ucdscholarshipsfinances/scholarships/](http://www.ucd.ie/global/study-at-ucdscholarshipsfinances/scholarships/)
  - Apply for College scholarship [www.ucd.ie/eacollege/study/nonescholarships](http://www.ucd.ie/eacollege/study/nonescholarships)
- Approved by US Dept of Education for federally supported loans

## WORK IN IRELAND

Option to stay in Ireland to seek employment and/or work for 2 years after graduating.

## FEES

Fee information is available at [www.ucd.ie/fees](http://www.ucd.ie/fees)

## RELATED MASTER'S PROGRAMMES OF INTEREST

- ME Energy Systems
- ME Materials Science & Engineering
- MEngSc Materials Science & Engineering



## STUDENT PROFILE

Cathal McClean  
ORIX Aviation

From a young age I have always been passionate about aircraft and flight, and this was the primary driving factor in my choice of Mechanical Engineering. Throughout my studies in UCD it's been amazing to see my interests change simply from airplanes generally, to the calculations, materials, simulation, and manufacturing processes that contribute to keeping them in the air.

In the first year of the master's I was able to spend eight months in an aircraft maintenance organisation, which gave great context to the theory learned in classroom modules.

Following on from this, I was fortunate enough to do a research thesis on the topic of fracture of composites, a material used extensively in aircraft structure.

UCD Mechanical Engineering is broad enough to give you the range and choice of topics to really pursue an area of interest to you. Whether you are interested in fluid dynamics, or control systems, or micro manufacturing, or 3D printing, the framework is there to pursue these areas.

## CONTACT US

**EU Students – Katie O'Neill** E: [katie.oneill@ucd.ie](mailto:katie.oneill@ucd.ie) T: +353 1 716 1781 W: [www.ucd.ie/eacollege](http://www.ucd.ie/eacollege)

**International Students – E:** [eamarketing@ucd.ie/international@ucd.ie](mailto:eamarketing@ucd.ie/international@ucd.ie) T: +353 1 716 8500 W: [www.ucd.ie/global](http://www.ucd.ie/global)