

# ME Energy Systems Engineering

Two Years Full Time (September start)



## Introduction

The ME in Energy Systems Engineering prepares graduates to meet the engineering, economic and environmental challenges facing the energy systems of developed and developing countries. Graduates of this programme gain a comprehensive understanding of the complex multi-disciplinary and often conflicting issues that arise in the search for effective solutions. Graduates will also be capable of working anywhere in the world at an advanced technical level or as a

professional engineering manager. The ME programme is professionally accredited by Engineers Ireland and recognised by the Washington Accord for Chartered Engineer status.

Candidates who have already completed a 4-year professional engineering bachelor's degree may be eligible for recognition of prior learning, enabling them to complete a 90 ECTS version of this programme over 12 months.

## Course Highlight

This Masters is a professionally accredited qualification delivered by a school with a long history of innovation. The programme provides the opportunity for a 6-8 month industrial placement as well as an extensive research project.

## Course Content and Structure

- ◆ 120 credits taught masters
- ◆ 60 credits taught modules
- ◆ 30 credits Research Project
- ◆ 30 credits Work Experience

### Core modules include:

- ◆ Chemical Processes of Sustainable and Renewable Energy
- ◆ Electrical & Electronic Circuits
- ◆ Electrical Energy Systems II
- ◆ Energy Systems & Climate Change
- ◆ Energy Systems in Buildings II
- ◆ Engineering Thermodynamics II
- ◆ Fossil Fuels, Carbon Capture & Storage
- ◆ Power System Operation
- ◆ Professional Engineering Management
- ◆ Research Project/Thesis
- ◆ Research Skills and Techniques
- ◆ Wind Energy

*Please see online for a full list of option modules.*

## Why study at UCD?



### Graduate education

12,800 graduate students; 17% graduate research students; structured PhDs



### Global community

9,500 international students and a 300,000 alumni network across 165 countries



### Global Profile

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



### Global careers

Dedicated careers support; 2-year stayback visa to work in Ireland



ENGINEERS IRELAND

ACCREDITED PROGRAMME



## Career Opportunities

Graduates of this ME Energy Systems programme will be equipped with the skill set and knowledge vital for crucial roles in research, design and development in companies in the energy sector. Alumni from this programme have obtained jobs in a wide variety of organisations in Ireland and further afield, the majority in the energy sector. Previous employers of ME in Energy Systems graduates include: Accenture, Arup, Berkeley Lab, Berkeley, Commission for Energy Regulation, Dublin Airport Authority, Intel Ireland Limited, Dalkia Ltd, Dimplex Renewables, Dynapower LLC, Eclareon, EirGrid, ESB International, Exergyn, Enercon GmbH, Imtech, Independent Market Operator, Intel, Irish Cement Limited, Phillips 66 Whitegate Refinery Ltd, KBR, KBR, MCS Kenny, National Grid, Northstar Drillstem Testers, Edmonton, PM Group, PwC, RPS Group, Saudi Aramco, Schletter UK Ltd, Schwenk Zement, Sea Breeze Power Corp, Sellafield Ltd, Trelleborg Marine Systems, and Melbourne.

## Graduate Profile

Siúin O'Riordan  
Wesgroup Properties



I chose to do the Master's in Energy Systems Engineering in UCD to broaden my skills and career opportunities and to be trained to work in the energy systems industry. The course included an 8-month professional work placement which was another important factor in choosing the master's. This work experience has given me confidence in approaching interviews, working as part of a professional team and developing my future career in the renewable energy sector. The high-quality material provided and the wide variety of modules offered have provided me with a deeper understanding of the current and future technical and economic challenges faced by the world's energy systems. The master's has prepared me to work as an engineer and be involved in future energy solutions.

## Applicant Profile

- ◆ Applicants must hold a bachelor's degree with a minimum upper second class honours (NFQ level 8) or international equivalent in Mechanical, Electrical or Electronic Engineering.
- ◆ 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/>

### International Fees and Scholarships

Tuition fee information is available on [www.ucd.ie/fees](http://www.ucd.ie/fees). Please note that UCD offers a number of graduate scholarships for full-time, self-funding international students, holding an offer of a place on a UCD masters programme. Please see [www.ucd.ie/global/scholarships/](http://www.ucd.ie/global/scholarships/) for further information.

### Related Masters Programmes of Interest

- ME Electrical Power Engineering
- MSc Sustainable Energy & Green Technologies

#### CONTACT US

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**W:** [www.ucd.ie/global](http://www.ucd.ie/global)

#### APPLY NOW

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