University College Dublin
Ireland's Global University

ME Energy Systems Engineering
(Two Years Full Time)

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.

This programme is aimed at those who require a recognised professional qualification in Energy Systems Engineering.

Professional work placements provided

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 month industrial placement as well as an extensive research project.

Course Content and Structure

120 credits	60 credits	30 credits	30 credits
taught masters	taught modules	professional work experience	research project

Core modules:

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

Option modules:

- Energy in Transport
- Heat Transfer
- Engineering Thermodynamics III
- Air Pollution
- Environmental Engineering Fundamentals
- Nuclear Physics
- Energy Economics and Policy
- Entrepreneurial Management
- Kinetics & Thermodynamics of Materials,
- Advanced Composites and Polymer Engineering
- Nanomaterials
- Measurement & Instrumentation
- Control Theory / Process
- Instrumentation & Control
- Entrepreneurial Management
- Electrical Machines
- Power Electronics and Drives
- Applications of Power Electronics
- Power System Design
- Power System Engineering
- Power System Control
- Power Electronics Technology
- Power System Stability Analysis
- Mechanics of Fluids II & III
- Computational Continuum Mechanics I & II
- Technical Communication
- Professional Work Placement (2-year programme only)

Why study at UCD?

Tradition
Established 1854, with 160 years of teaching & research excellence

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

Global community
Over 6,000 international students from over 120 countries study at UCD

Global careers
Degrees with high employability; dedicated careers support; 1 year stay-back visa (for non-EU students)

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

UCD.G.T164.2015.A

Course code: T164

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.

Prospective employers include: ESB International (Dublin), Commission for Energy Regulation (Dublin), Airport Authority, Intel Ireland Limited, Dalkia Ltd (Dublin), Accenture (Dublin), Dimplex Renewables (Irl), Enercon GmbH (Ireland and Germany), Zenith Technologies (Cork), ConocoPhillips (Cork), Imtech (UK), MCS Kenny (UK), Sellafield Ltd (UK), Schletter UK Ltd, Schwenk Zement (Germany), KBR (UK), Capula Ltd (UK), Eclareon (Spain), Dynapower LLC (USA), Sea Breeze Power Corp (Canada), KBR (Australia), and Independent Market Operator (Perth, Australia). Significant numbers of graduates have also decided to pursue further study to PhD level, at UCD and elsewhere.

Apply Now

This programme receives significant interest so please apply early online at www.ucd.ie/apply

Entry Requirements

- A 4-year bachelors degree with a minimum upper second class honours (NFQ level 8) or international equivalence in a relevant Engineering programme.
- 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.

International Students

- Stay in Ireland after graduating for 12 months to seek employment
- Approved by US Dept. of Education for federally supported loans
- Apply for Non-EU Scholarships: www.ucd.ie/international/scholarships

Related Masters Programmes of Interest

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

Fees

Fee information is available www.ucd.ie/fees

Graduate Profile

James Egan, Murex

I chose UCD for my undergraduate Engineering studies as the college is well renowned for its high standard of Engineering facilities, research and academic staff. I was aware that the Energy Systems sector is an area of massive economic growth worldwide, and that increasing the efficiency of these energy systems is becoming increasingly important year after year. My research project focused on improving methods of Building Energy Performance Simulation, an area which is currently of huge importance in both the research and construction industries. The involvement of my project supervisor and other academics within the school of Engineering provided the support required to make this a project which I feel will really stand to me in the future. My six-month internship in Murex was organised by UCD through the internship programme and the knowledge and methods of practical decision making which is instilled in students of the ME Energy Systems course is greatly sought after by Murex and other companies and I have recently been offered a full time contract. The majority of my classmates have also been offered full time contracts in a variety of companies. I would strongly recommend the Energy Systems course to anybody with an interest in the area.

Contact Us

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