



University College Dublin  
Ireland's Global University



## MSc SUSTAINABLE ENERGY & GREEN TECHNOLOGIES (ONE YEAR FULL TIME)

The MSc Sustainable Energy & Green Technologies enables you to focus on advanced education and training in the development and optimisation of renewable energy resource exploitation, the efficiency in energy generation and utilisation pathways (including energy conservation), the mitigation of environmental impacts, and preparation for business innovation and job creation opportunities in renewable energy systems technology development, plant biotechnology and entrepreneurship. The programme is underpinned by the best European

practice by incorporating compatible EU policy drivers such as the Strategic Energy Technology Plan (SET Plan) for energy research, current R&D in crops (through ongoing and research initiatives under the Charles Parsons Energy Research programme), and the collaboration with internationally acknowledged experts in the subject domains from universities, research institutions and industry. This programme enables you to maintain relevance of academic and research training, and therefore enhance your employability in the area of sustainable energy.

### DELIVERED BY A HIGHLY RESEARCH-INTENSIVE SCHOOL

This programme is delivered by a highly research-intensive School comprised of a European Research Council Fellow and six Marie Curie Fellowships. The programme Director Prof. Kevin McDonnell won the inaugural SEAI Energy Innovation award, the Environcom award for energy innovation and is a Fulbright Scholar. This programme provides opportunities for site visits and industry internships where possible. The UCD School of Biosystems & Food Engineering consistently wins up to €3 million in annual research funding.

### WHY STUDY AT UCD?



#### 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 8,000 international students from over 139 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

**90 credits**  
taught master's

**60 credits**  
taught modules

**30 credits**  
research project

This MSc programme modules include:

- Advanced Air Pollution
- Bioeconomy Feedstocks
- Energy Systems Integration
- Energy Systems & Sustainable Environment
- Entrepreneurship & Biotech
- Life Cycle Assessment
- LCA Application
- Research Methods
- Biorefinery Processes & Technology
- Thesis
- Waste to Energy Process & Technology

Please see online for a full list of modules





## CAREER OPPORTUNITIES

Graduates of the MSc in Sustainable Energy & Green Technologies programme will have competences and skill sets for employment in companies and organisations geared to planning, deploying and utilising a wide range of green technologies systems including environmental impact mitigation. Typical opportunities will be in waste-to-energy facilities, biogas plants, ethanol production facilities, district-heating operations, renewable energy research laboratories, facilities utilising wind energy (including wind farms), solar energy, biomass and hydrogen energy, as well as leading energy utility companies, and research institutions. The knowledge and skill you gain from the Innovation and Technology Transfer module specifically will provide you with unique insights into the entrepreneurial process, from identification of the innovative idea through to the launch of a successful business.



## GRADUATE PROFILE

**Mert Satir**

Siemens Wind Power

Having obtained a scholarship from the EU, I selected this Master's through which I comprehensively learned about technical, economic and policy aspects of sustainable energy systems. I have extended my prospects by combining my engineering background with what I learned during this programme, and more importantly, I was constantly introduced to novel concepts related to the industry. The variety of material and software offered by each module greatly enhanced my learning experience. I have benefited from academics who are experts in their fields and who also have close links with the industry; this, coupled with the entrepreneurship projects and mock interviews has taught me more than I could have learned in a classroom. As a foreign student, UCD is an excellent university from which to enjoy Dublin's vibrant social life and this beautiful country. I would highly recommend UCD to anyone who wishes to work in the industry.

## 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 with a minimum upper second class honours (NFQ Level 8) or international equivalent in an Engineering, Physical Science or Environmental related degree 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.
- Students who do not meet the IELTS requirement may wish to consider taking the Pre-Sessional or Pre-Master's Pathway. Full details at <https://www.ucd.ie/alc/programmes/pathways/>

## INTERNATIONAL STUDENTS

- Option to stay in Ireland to seek employment and/or work for 2 years after graduating
- Approved by US Dept of Education for federally supported loans
- Apply for University non-EU Scholarships: [www.ucd.ie/global/study-at-ucd/scholarshipsfinances/scholarships/](http://www.ucd.ie/global/study-at-ucd/scholarshipsfinances/scholarships/)
- Apply for College of Engineering & Architecture non-EU scholarship: [www.ucd.ie/eacollege/study/noneus/scholarships](http://www.ucd.ie/eacollege/study/noneus/scholarships)

## RELATED MASTER'S PROGRAMMES OF INTEREST

- MSc Environmental Technology
- ME Electrical Power Engineering
- ME Energy Systems

## FEES

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

## CONTACT US

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

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