

MSc Sustainable Energy & Green Technologies

One Year Full Time (September start)



Introduction

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.

Course Highlight

The programme Director, Professor Kevin McDonnell won the inaugural SEAI Energy Innovation award, the Environcom award for energy innovation and is a Fulbright Scholar. This programme also provides opportunities for site visits and industry internships where possible.

Course Content and Structure

- 90 credits taught masters
- 60 credits taught modules
- 30 credits dissertation

The programme is structured in three academic semesters (12 calendar months).

Research Project: During the last semester of this programme, students will be required to complete their MSc Thesis. Co-requisite for embarking on the Research Project module include, successful completion of the On-line Research Skills, and completion of a series of Term Papers related to specific taught modules.

Modules include:

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

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





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.

Graduate Profile

Mert Satir
Siemens Wind Power



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.

Applicant Profile

- Applicants must hold 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 Fees and Scholarships

Tuition fee information is available on 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/ for further information.

Related Masters Programmes of Interest

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

CONTACT US

Irish/EU Students – Katie O'Neill **E:** katie.oneill@ucd.ie **T:** +353 1 7161781 **W:** www.ucd.ie/eacollege
International Students – **E:** eamarketing@ucd.ie/internationalenquiries@ucd.ie **T:** +353 1 7168500
W: www.ucd.ie/global

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