



Renewable Energy MSc

www.cranfield.ac.uk/re



Study Renewable Energy at Cranfield and tackle climate change head-on

This Renewable Energy MSc will equip you with the advanced knowledge and skills to develop a successful career in the rapidly-growing renewable energy sector. A choice of study routes enables you to specialise in developing the latest technical skills required to design renewable energy systems, or to focus on managing renewable engineering projects and systems. Ranked in the UK top 5 for mechanical engineering, Cranfield offers a unique, postgraduate-only environment, unique engineering-scale facilities for the development of efficient renewable energy technologies with low-CO₂ emissions and a teaching team with extensive experience of solving real-world renewable energy challenges.

Who is it for?

This postgraduate degree in renewable energy is designed for engineering, maths or science graduates who wish to develop a successful and rewarding career in the renewable energy sector. It will equip you with the multidisciplinary skills required to design, optimise and evaluate the technical and economic viability of renewable energy schemes. The engineering route will provide you with the technical skills required to design renewable energy systems, including finite element analysis (FEA), computational fluid dynamics (CFD), and technology lifecycle management (TLM). Alternatively, you can specialise in managing renewable energy projects and systems, focusing on topics such as health and safety and environment, energy entrepreneurship and asset management.

Your career

With the current global focus on developing low-carbon energy production and renewable energy technologies, you can expect to be highly sought after by employers. Equipped with the expertise to analyse current and future energy needs and to design and implement appropriate solutions, a wide range of careers are open to you, as a professional scientist or engineer across the full breadth of industrial and public sector organisations involved in renewable energy.

For example, on completion of the course, our students have been employed by organisations such as E.ON, Vestas, Vattenfall, Siemens Gamesa Renewable Energy, ABB, Scottish Renewables, EDF and Iberdrola.

Overview

Start date

Full-time: October, part-time: October

Duration

One year full-time, two-three years part-time

Qualification

MSc, PgDip, PgCert

Study type

Full-time / Part-time

Structure

Taught modules 40%, group project 20% (or dissertation for part-time students), and individual project 40%

Campus

Cranfield campus

Entry requirements

A first or second class UK honours degree (or equivalent) in a related science or engineering discipline. Other recognised professional qualifications or several years' relevant industrial experience may be accepted as equivalent, subject to approval by the Course Director.

Applicants who do not fulfil the standard entry requirements can apply for the Pre-master's course, successful completion of which will qualify them for entry to this course for a second year of study.

Fees

Please see www.cranfield.ac.uk/fees for detailed information about fee status, full-time and part-time fees as well as deposit requirements and bursary and scholarship information.

Course details

The taught programme for the Renewable Energy MSc comprises eight modules and is generally delivered from October to February. Each module is typically delivered over two weeks. Generally, the first week involves intensive teaching while the second week has fewer teaching hours to allow time for more independent learning and completion of the assessment. Students on the part-time programme will complete all the modules based on a flexible schedule that will be agreed with the Course Director.

Modules

Keeping our courses up-to-date and current requires constant innovation and change. The modules we offer reflect the needs of business and industry and the research interests of our staff. As a result, they may change or be withdrawn due to research developments, legislation changes or for a variety of other reasons. Changes may also be designed to improve the student learning experience or to respond to feedback from students, external examiners, accreditation bodies and industrial advisory panels.

To give you a taster, we have listed below the compulsory and elective (where applicable) modules which are currently affiliated with this course. All modules are indicative only, and may be subject to change for your year of entry

Engineering route compulsory modules

All the modules in the following list need to be taken as part of this route:

- Renewable Energy Technologies 1
- Renewable Energy Technologies 2
- Engineering Stress Analysis: Theory and Simulations
- Solar Energy Engineering
- Fluid Mechanics and Loading
- Design of Offshore Energy Structures
- Energy Entrepreneurship

Engineering route elective modules

Please select one of the following:

- Energy Systems Case Studies
- Short Research Project

Management route compulsory modules

All the modules in the following list need to be taken as part of this route:

- Renewable Energy Technologies 1
- Renewable Energy Technologies 2
- Sustainability and Environmental Assessment
- Energy Economics and Policy
- Health, Safety and Environmental Risk
- Energy Entrepreneurship
- Engineering Project Management

Engineering route elective modules

Please select one of the following:

- Energy Systems Case Studies
- Short Research Project

"The year I spent at Cranfield was one of the most enriching experiences of my life. The right balance of engineering and management modules, the personalised attention from the faculty staff and the interesting, complex projects are just a few examples of why I consider my Cranfield experience a fundamental part of the engineer I am today."

Xavier Lebrija

Renewable Energy MSc, 2018

Accreditation

This postgraduate degree in renewable energy is accredited by the Institution of Mechanical Engineers (IMechE) and The Energy Institute.



Class profile 2022/23

Gender:

Male 83% - Female 17%

Age range:

20 - 64 years

Nationality:

UK/EU: 26% - International: 74%

Class size:

79

For more information contact our Admissions Team:
T: +44 (0)1234 758082

Visit campus for yourself and meet current students and our academics at our next Open Day:
www.cranfield.ac.uk/penday

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Every effort is made to ensure that the information provided here is correct at the time it is published. Please check our website for the latest information.