



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, 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.

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 80 credits/800 hours, Group projects 40 credits/400 hours, Individual project 60 credits/600 hours

Campus

Cranfield campus

Entry requirements

We welcome applications from talented individuals of all backgrounds and each application is considered on its individual merit. Usually applicants must hold:

A UK lower second-class (2:2) undergraduate degree with honours, as a minimum, or equivalent international qualification.

Ideally, applicants will have studied in a related engineering or applied science discipline.

Find information about equivalent qualifications in your country on our International entry requirements page.

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.

ATAS clearance

This course requires Academic Technology Approval Scheme (ATAS) clearance.

ATAS is run by the UK Government's Foreign, Commonwealth and Development Office (FCDO) and applies to international students, except exempt nationalities, who need a visa to study in the UK. Further information can be found in our Application guide.

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.

The MSc year consists of three main elements; the taught modules, the group project and individual project.

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

Compulsory modules

All the modules in the following list need to be taken as part of this course.

Engineering route:

Renewable Energy Technologies 1

Renewable Energy Technologies 2

Engineering Stress Analysis: Theory and Simulations

Solar Energy Engineering

Energy Entrepreneurship

Fluid Mechanics and Loading

Design of Offshore Energy Structures

Management route:

Renewable Energy Technologies 1

Renewable Energy Technologies 2

Engineering Design and Project Management

Energy Entrepreneurship

Energy Economics and Policy

Health, Safety and Environmental Risk

Sustainability and Environmental Assessment

Elective modules

Select one from the list below

Energy Systems Case Studies

Short Research Project

"Pursuing an MSc in Renewable Energy at Cranfield University was one of the best decisions I've made. The year was truly enriching, with the highlight being the coursework assignments that tackled real-world problems. This approach made me industry-ready and instilled a sense of confidence in my abilities."

Anju Chalil Kizhakke

Renewable Energy MSc, 2023

Accreditation

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



Class profile 2023/24

Gender:

Male 75% - Female 25%

Age range:

20 - 64 years

Nationality:

UK: 30% International: 70%

Class size:

44

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/openday

January 2025

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.