Data Science and Artificial Intelligence for Sustainability MSc

www.cranfield.ac.uk/DataScienceandAI

The digital landscape of sustainability is fast changing - apply your digital skill to solve global sustainability issues with the Data Science and Artificial Intelligence for Sustainability MSc

Sustainability depends on areas such as energy production and environmental management, making it a complex problem. Energy supply is fundamentally important to our homes and workplaces. Future energy supply has to be affordable, stable and secure. Ecosystem management needs to account for the food, water and energy nexus and socio-political context.

Digital transformation is an emerging discipline using powerful digital tools and various digital models to solve and manage the increasingly complex problems related to sustainability energy systems. Within this discipline, digital tools and models (such as Artificial Intelligence) are used to analyse data from different energy systems and sources and drive new control and operational strategies and business models, whilst supporting key objectives such as reaching net zero emissions.

Who is it for?

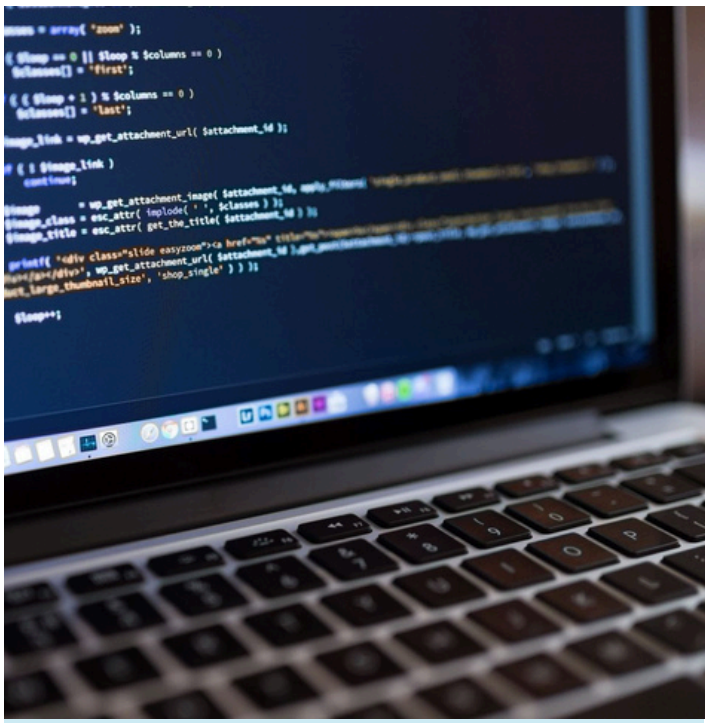
This course is suitable for engineering, computer science, mathematics, environmental, energy and information technology graduates wishing to pursue a technical management career in the rapidly growing area of digital transformation for sustainability. It develops professional engineers, scientists and practitioners with the multidisciplinary skills and ability to analyse current and future sustainability challenges across private and public sectors.

Your career

The international nature of this growing field allows Cranfield graduates to develop diverse and rewarding global careers in industry, government or research.

Example careers:

- Energy Analyst – data science,
- Offshore Energy Analyst,
- Energy and Sustainability Analyst.



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.

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 master's is generally delivered from October to February and is comprised of eight modules. Each of the first five modules are 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.

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:

- **Artificial Intelligence for Sustainability**
- **Data Analytics for Sustainability**
- **Energy Economics and Policy**
- **GIS and Spatial Data Management**
- **Scientific Python**
- **Sustainability and Environmental Assessment**

Elective modules

Select one from the list below:

- **Computational Fluid Dynamics for Renewable Energy**
- **Energy Entrepreneurship**

Elective modules

Select one from the list below:

- **Energy Systems Case Studies**
- **Short Research Project**
- **Energy Economics and Policy**

"My group project was actually with an industry, one of the leading industries in the renewable energy investment sector. So we worked with them as a consultant – so it was like working in industry, not just purely academic.."

Toba Awe,

Data Science and Artificial Intelligence for Sustainability, 2022

Class profile 2025/2026

Gender

83% Male 17% Female

Age range

20 years - 44 years

Nationality

17% UK/EU 83% International

Class size

12

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.

For more information contact Admissions:
T: +01234 758082
Enquiry form.

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

March 2026