

# IESD

## Institute of Energy and Sustainable Development

Climate change, and the impact it will have on our lives, is one of the greatest problems facing mankind. The UK is at the forefront of global efforts to reduce the emission of greenhouse gases, and strategies for adapting to the global warming that will inevitably occur are being developed. The Institute of Energy and Sustainable Development (IESD) plays an important role in this by working to reduce energy consumption in buildings; to develop and apply renewable energy systems; to understand the social, economic and technical implications of climate change; and to educate current and future generations of the need to develop more sustainably.

The IESD's research work is conducted by a team of professors, readers, lecturers and research fellows – supported by higher degree students – who are internationally respected for the quality of their work. Their disciplines range from mathematics and physics, through engineering, to economics, sociology and psychology. This diverse range of skills enables staff to lead multi-disciplinary, multi-university projects and address inter-linked environmental, economic and social research problems.

Their expertise enables IESD staff to:

- Provide strategic advice to central government departments and to regional and local policy makers and planners
- Act as environmental design consultants to architects and engineers working on architecturally significant and award-winning buildings both in the UK and overseas
- Offer advice to numerous small businesses and local authorities who are seeking to adopt more sustainable business practices.

The IESD provides a high quality environment for doctoral study and its Master's programmes cater for a wide range of graduates and professionals wishing to increase their knowledge of environmental issues in an interdisciplinary context or to work more effectively as building design professionals.

### Institute of Energy and Sustainable Development

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Institute of  
**Energy and Sustainable Development**



# IESD

## MSc in **Climate Change and Sustainable Development**

- A modular course for graduates and professionals
- Uniquely broad subject coverage
- Internationally recognised research expertise
- Full-time, part-time and electronic distance learning
- International enrolment

### Course Leader

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### Location

The Institute of Energy and Sustainable Development (IESD) occupies the award-winning Queens Building, a groundbreaking low-energy, naturally ventilated building on De Montfort University's City Campus. The campus is situated close to Leicester city centre in the historic area of Castle Park. It is a compact campus with a wide range of facilities for students: library, bookshop, sports facilities and Students' Union, plus a full range of student services such as welfare and accommodation.

### Programme

The MSc is uniquely broad in its coverage. This reflects the range of knowledge and skills required to address the challenges of climate change and sustainable development. It also provides depth in key areas, drawing upon the internationally recognised research and consultancy

expertise of the multi-disciplinary IESD research team, plus visiting lecturers from industry.

The MSc meets the needs of recent graduates seeking a career in the climate change and sustainability sector and also enables professionals to extend their knowledge or to change career. This popular programme has run for many years, during which time our graduates have been able to build successful careers in industry, the public sector and academia.

### Teaching

Full-time students attend lectures for two days per week for 24 weeks per year, with the remainder of the time being spent on guided seminar work and private study; part-time students attend on one day per week.

Distance learning via the web-based Blackboard 'virtual learning environment' is increasingly popular. This provides student-to-student and tutor-to-student interaction, delivery of lessons and secure submission of coursework. Distance learners can complete all taught modules without visiting the University.

### Assessment

Methods of assessment include project work, essays, case studies, technical reports and a research project. Monitoring of your progress is continuous and thorough. Past students have commented on the quality and constructive nature of the feedback provided on assessed work.

### Entry requirements

You should normally have a good degree (second class and above) or five years' work experience in an appropriate field. Applicants from outside the UK must possess an equivalent qualification from an overseas institution. Students are selected by application form and references initially. The programme is taught in English. Overseas applicants for whom English is not a first language will normally require an IELTS score of 6.5 or a TOEFL score of 600/250.

### Programme structure

There are eight taught modules and a research project, leading to the following awards:

- MSc – eight taught modules and a research project
- Postgraduate Diploma – eight taught modules or four modules and a research project
- Postgraduate Certificate – four taught modules.

Individual modules can be pursued as part of a continuing professional development programme, resulting in the award of institutional credits.

### Modules studied

**Energy in Buildings** presents a broad overview of energy use in domestic and non-domestic buildings and how it relates to building construction, including low energy sustainable approaches to design. Building energy-flows, thermal comfort and daylighting practices are discussed. The role of regulation and assessment of environmental impact is investigated.

**Sustainable Development** explains the conceptual, historical and political context and encourages you to develop a critical appreciation of the sustainable development debate and to challenge widely held views.

**Renewable Energy** considers the potential for renewable energies within the urban and rural environment, including integration into the design and refurbishment of settlements.

**Research Methods** equips you with the skills necessary to successfully complete a research project of a high standard and also imparts a critical appreciation of the purpose of research and how to assess its quality.

**Resource Use and Pollution** considers life cycle assessment, industrial ecology and pollution policy, including eco-taxation, tradeable carbon allowances and the operation of international climate change agreements.

**Integrated Environmental Strategies** covers the importance of regional and local energy strategies in dealing with the economic, social and environmental benefits of climate change abatement.

**Energy Analysis Techniques** considers analysis of the energy performance of buildings and industry, including monitoring and target-setting in multi-site organisations, energy audit and survey techniques.

**People, Society and Climate Change** examines the social and psychological dimensions of climate change, focusing on the most effective methods to inform and change the behaviour of the public and decision-makers.

### Research project

Projects can be based upon existing specialist IESD research areas or a topic of the student's choice. You will be guided and supervised by a personal project tutor.

Recent research topics have included:

- Community-based carbon reduction programmes
- Public understanding of science relevant to climate change
- Managing energy in schools
- Climate change strategy for a local authority
- Willingness to pay for energy efficiency
- Life cycle assessment of a solar thermal heating system
- Role of the media in communicating climate change
- Travel to work surveys
- Effects of thermal mass in domestic dwellings.

### Duration

One year full-time  
Two years part-time  
Three years distance learning

For further information please visit our website [iesd.dmu.ac.uk](http://iesd.dmu.ac.uk)

This course has been approved by the Energy Institute for completing the educational requirements for Chartered Engineer registration.

