



Environmental Engineering

MSc

The scale of modern industrialisation has given rise to environmental problems of unprecedented complexity. This MSc examines environmental problems like toxic waste, air pollution, waste disposal, global warming, contaminated land and water. The challenge for today's environmental engineers is to manage these problems through a high level of resource management and technological innovation.

Today's environmental problems require innovation in improvements to manufacturing processes and in the utilisation of natural resources. Both the assessment and management of the effects of natural and human activity on the natural and built environment are examined in this course.

The course demands a high level of resource management and is designed to enable graduates to work across the interface between engineering and the environment.

Students will develop:

- important skills in harmonizing the activities of industry and business with the protection and enhancement of the environment
- the ability to evaluate the significance of environmental hazards, advise on treatment and containment, and develop the technologies and regulations that help to prevent and contain accidents
- a solid understanding of existing technologies, and an appreciation of the economic, legal, social and ethical aspects of the environmental challenges
- skills in research, project management, problem solving and reporting, as well as exercising original thought
- the ability to plan and undertake an individual project, and develop interpersonal communication and professional skills





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Course structure

The course consists of core and optional taught modules plus a major individual research-based project undertaken during the summer term. A total of 180 credits must be completed to obtain the MSc. Please be aware modules are subject to change.

Core modules

Research Planning 20 credits

10 credits from either:

Wind Engineering & Energy 10 credits

or

Natural Hazards & Environmental 10 credits

Fluid Mechanics

Optional Modules include

Air Pollution 10 credits

Contaminated Land 10 credits

Hazardous Waste Management 10 credits

Water Treatment Engineering 10 credits

Advanced Environmental Assessment 10 credits

Advanced Resource Technologies 10 credits

Air Pollution 2 10 credits

Environmental Project Management 10 credits

Petroleum Production Engineering 10 credits

Materials Processing 10 credits

Individual project

Following the successful completion of the taught modules, an individual research project is undertaken over the summer term.

There is a wide choice of project areas to choose from and all projects are supervised by an academic member of staff.

Previous projects have included:

- heavy metals removal from drinking water
- microbial fuel cells
- carbon dioxide capture technologies
- removal of pharmaceuticals during wastewater treatment
- nanobots for contaminated land remediation

Funding opportunities

Find out more about funding options at:

www.nottingham.ac.uk/graduateschool/funding

Employment prospects

The growing recognition of the need for environmental protection has generated a high demand for good quality environmental engineers. This course equips students with skills suitable for a wide range of careers within UK and international organisations, including, petrochemicals, foods, pollution protection, nanotechnology, academic research, consultancy, management and finance. The programme will also provide a strong foundation should you decide to continue your studies to PhD level and to pursue a research career.

Entry requirements

Applicants are usually required to have a 2.1 honours degree or higher (or international equivalent) in a relevant subject.

Most applicants have an engineering or physical sciences first degree, and the most common include environmental and or chemical engineering and chemistry, although applicants from other backgrounds may also be eligible.

English language requirements:

- IELTS score of at least 6.0 with a minimum score of 5.5 in individual elements

Other qualifications are accepted and exceptions are sometimes made for students who have had their education entirely in the medium of English and where English is a well-established second language.

How to apply

Candidates are encouraged to apply online at:

<https://pgapps.nottingham.ac.uk>

Contact us

For further information, please contact:

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