MSc Environmental Engineering

The scale of modern industrialisation has given rise to environmental problems of unprecedented complexity. The challenge for today's environmental engineers is to manage these problems through a high level of resource management and technological innovation.

This masters programme examines environmental problems like toxic waste, air pollution, waste disposal, global warming, contaminated land and water. It delivers high level competency in process engineering design, environmental assessment and research.

The MSc Environmental Engineering offers to students with BEng, BSc or non-accredited engineering degrees the skills required to be eligible for Chartered Engineer status.

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 a research project
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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
• Accelerated Design Training (year-long): 30 credits
• Environmental Risk Assessment (autumn): 10 credits
• Air Pollution (autumn): 10 credits
• Water Treatment (autumn): 10 credits
• Industrial Process Analysis (autumn): 10 credits*
• Biochemical Engineering (autumn): 10 credits*
• Research Planning (spring): 10 credits
• Contaminated Land (spring): 10 credits
• Water Treatment Engineering (spring): 10 credits
• Air Pollution 2 (spring): 10 credits

*Please be aware that these are level 3 modules also offered as part of a different programme. Modules that have already been taken cannot be repeated.

Optional Modules
• Power Generation and Carbon Capture (autumn): 10 credits
• Petroleum Production Engineering (autumn): 10 credits
• Wind Engineering (autumn): 10 credits
• Power Risk Benefit and Analysis (spring): 10 credits
• Energy Storage (spring): 10 credits
• Fossil Energy Resources (spring): 10 credits

Research project
Following the successful completion of the taught modules, a research project is undertaken over the summer term worth a total of 60 credits. There is a wide choice of project areas to choose from and all projects are supervised by academic members 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
• Design of a process for the clean up and/or reclamation of contaminated sediment from the Birmingham Canal Navigation

Funding opportunities
Funding options can be found at:
Home and EU: www.nottingham.ac.uk/fundingPG
International: www.nottingham.ac.uk/internationalstudents/scholarships

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 first degree, and the most common include environmental and or chemical engineering, 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.

How to apply
Candidates are encouraged to apply online at:
www.nottingham.ac.uk/pgstudy/apply

Contact us
For further information, please contact:
Enquiry Centre
t: +44 (0)115 951 5559
w: www.nottingham.ac.uk/enquiry
w: www.nottingham.ac.uk/chemenv

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