



Environmental and Resource Engineering MSc

The modern resource industry is continually facing new environmental challenges. This course develops the skills required by modern engineers to be innovative and competitive in meeting these challenges.

The course draws on three major areas of research activity: cleaner production, processing and use of resources; new ways to recover and recycle wastes and end of life materials; and pollution prevention and control.

Students will develop:

- vital skills in environmental monitoring and control across the wide ranging exploration, planning, production, processing and remediation activities of the minerals industry

- a solid understanding of existing technologies for resource processing engineering, and an appreciation of the economic, legal, social and ethical aspects of the environmental challenges
- 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
- skills in research, project management, problem solving and reporting, as well as in exercising original thought
- the ability to communicate ideas effectively in written reports, verbally and by means of presentations to groups
- ability to plan and undertake an individual project
- interpersonal, communication and professional skills





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Course structure

The course consists of 120 credits of core and optional taught modules along with a 60 credit major individual research-based project undertaken during the summer term. Please be aware modules are subject to change.

Core modules

Materials Processing	10 credits
Research Planning	20 credits

10 credits from either:

Wind Engineering & Energy	10 credits
or	
Natural Hazards & Environmental Fluid Mechanics	10 credits

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

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:

- assessment of energy crops for combined heat and power systems
- bio-refining of non-food biomass
- sustainable utilization of natural resources
- the prediction of mineral blasting events within a working quarry
- the use of microwave energy for the exfoliation of expanded minerals

Funding opportunities

Find out more about funding options at:

www.nottingham.ac.uk/graduateschool/funding

Employment prospects

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:

Department of Chemical and Environmental Engineering

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e: chemenv-msc@nottingham.ac.uk

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To request this information in an
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