

Student funding available

Land Management

MSc, PgDip, PgCert **Full and part-time**

Options in

- Ecological Conservation
- Land Reclamation & Restoration
- Natural Resource Management
- Soil Management

Successful land management is vital if individuals, communities, businesses and governments are to balance successfully the competing demands of land use to provide food, fuel, high quality water, timber and fibre with those of environmental regulation, conservation, landscape, recreation, and urban development.

The Land Management MSc integrates new scientific understanding of environmental processes with relevant engineering and management skills. These skills are then used to develop new, integrated land management solutions at relevant scales including field, city, catchment, national, and global.

Focus on your career

Successful students go on to a wide range of careers such as consulting engineers, conservationists, environmental and design planners/consultants, land and sustainability managers and advisors, researchers, and educationalists. Employers include statutory agencies and ministries, conservation trusts, environmental companies, international development organisations, land and natural resource management businesses, large agri-food companies, local authorities, NGOs, and research organisations.

Benefit from our reputation

Cranfield University has an established international reputation for its expertise in sustainable natural resource management. We either lead or collaborate as partners on research and consulting projects, both nationally and internationally. Our research focuses on providing practical and cost-effective solutions to the challenges of land management and sustainability. Each option is accredited by the Landscape Institute. The Soil Management and Land Reclamation and Restoration options are also accredited by the Institution of Agricultural Engineers (IAgrE).

Benefit from our expertise

You will be taught by internationally leading academics and practitioners. This will ensure you are aware of cutting-edge tools, techniques and innovations. The course is directed by an industrial advisory committee comprising senior representatives from leading environmental organisations, consultants and NGOs. This means the skills and knowledge you acquire are relevant to employer requirements.

Benefit from practical experience in work-related group projects

Project work undertaken enables you to assimilate the knowledge and skills gained from the taught element of the course and put these into real-world practise while gaining transferable skills in project management, team-work and independent research. Industrially oriented projects have support from industry and other external organisations. Future employers value this experience. Part-time students have the benefit of addressing their employer's real business problems supported by our academic supervision.



Selected options accredited by



Land Management options

The MSc Land Management allows specialisation through selection of one of four options. Advice and help is available at the interview stage, if required, to help students in their decision making process about which option to pursue.

"Cranfield was crucial to me when I was looking for a job; it was a kind of green light without which my chances would be poor."

Malgosia Talska, 2006-2007

Ecological Conservation

The management of our environment for ecological objectives is a rapidly expanding field of activity in the wake of the Millennium Ecosystem Assessment, and the implementation of European directives. For biodiversity to be maintained ecological resources require careful management based on sound scientific principles.

This option provides knowledge and develops understanding about the acquisition and management of ecological data for the economic conservation of biodiversity and restoration of damaged ecosystems. It also provides the skills to assess, plan, execute and implement programmes of ecological management which reconcile the needs of wildlife and other ecosystem services such as agriculture, forestry and water management.

"I found the course very interesting and diverse. I learnt many practical skills that have since helped me in the workplace. The course has an excellent balance of theory and practical work. Without this MSc I would not have got my current job. It gave me a good grounding in geographical information systems and statistics which I now use on a daily basis."

Marc Turner, Natural England

Land Reclamation & Restoration

Land reclamation and restoration is designed to meet increasing demands to restore and manage greenfield and brownfield sites to the amenity, natural habitat or agricultural use engendered by national government and EU directives. Industry acknowledges the need for highly-trained engineers and science-based professionals to have the knowledge and skills to implement management strategies in response to the drive for the restoration, reclamation and remediation of land.

This option provides the knowledge and skills required to bridge the gap between damaged land and fully restored ecosystems. It focuses on soils engineering and the soil-plant system with particular regard to land reclamation and ecological restoration. It also provides the skills to assess, plan and implement strategies needed to restore, reclaim and remediate damaged land in the public and corporate sectors. Visits to relevant land reclamation and ecological restoration sites form a major part of the programme.

"I would recommend the course to other students as they will gain a complete overview of the reclamation and restoration process. Having this broad-based understanding also means that you can look at a wider range of career opportunities."

Julie Southall, Graduate Engineer, Jacobs Babbie

Natural Resource Management

Increases in global population and standards of living, and greater awareness of our environmental impact, means that we must learn to manage both our natural resources, and ourselves, in new ways. As future natural resource managers, we need to integrate a scientific understanding of environmental processes with a mature appreciation of the role of institutions and socio-economics.

This option provides the knowledge and skills to apply social, economic, scientific and engineering principles to plan, implement and evaluate sustainable natural resource management projects and programmes. It also provides training with key skills such as the use of geographic information systems, stakeholder analysis and environmental impact assessment.

"A well-designed course with an ideal balance of taught subjects and practical assignments. Following completion of the course in 2004, I have been promoted to an Associate Fellow."

Grace Lhouvum, Tata Energy Research Institute, India



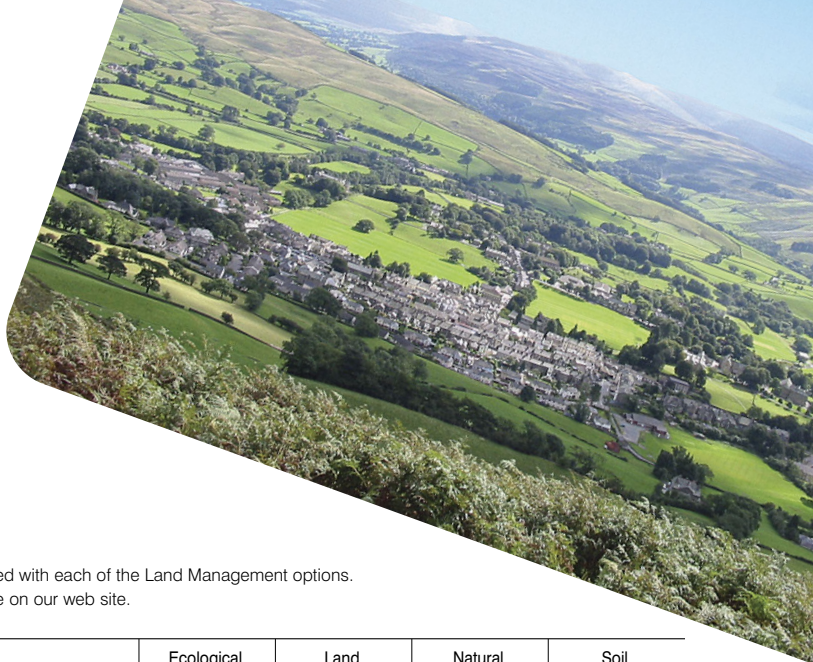
Soil Management

Soil is a key natural resource that needs to be managed successfully to support sustainable development. It is growing in economic importance because of a broader environmental agenda and new legislation. Poor soil management in many regions, including parts of Europe, has progressively degraded productive soils. This is putting global food security at risk in the context of a growing and increasingly wealthy global population.

This option provides expertise in the management of soil in agricultural and rural land systems to enable the development, evaluation and implementation of soil management solutions that will optimise economic productivity with the delivery of ecosystem services such as biodiversity and heritage conservation, environmental protection and water management.

"As the profile of soils grows in both UK and EU circles, the need for properly qualified professionals to deliver soil management solutions for land managers will become increasingly important."

Prof. Brian J Chambers, Senior Principal Scientist, ADAS UK Ltd



The modules

The table below identifies the modules associated with each of the Land Management options. Detailed information on each module is available on our web site.

Taught Modules	Ecological Conservation	Land Reclamation & Restoration	Natural Resource Management	Soil Management
Induction Week	●	●	●	●
Common Modules - Students must take 4 common modules				
GIS Fundamentals	●	●	●	●
Principles of Sustainability	●	●	●	●
Soil Erosion for Catchment Management	●	●	●	●
Soil Plant Environment Science	●	●	●	●
Option Modules				
Agricultural and Environmental Soil Engineering	n/a	●	n/a	●
Ecological Restoration	●	●	n/a	n/a
Environmental Impact Assessment	●	n/a	●	n/a
Environmental Policy	n/a	n/a	n/a	●
Environmental Remote Sensing	●	n/a	●	n/a
Landscape Ecology	●	●	●	n/a
Land and Social Resource Survey and Planning	n/a	n/a	●	n/a
Land Engineering and Water Management	n/a	●	n/a	●
Soil Carbon, Nutrients and Contamination	n/a	n/a	n/a	●
Group Project Module				
Integrated Group Project - Improving Land Based Ecosystem Service Delivery	●	●	●	●
Other Projects				
Individual Thesis Project	●	●	●	●

* For part-time students a dissertation can replace the integrated group project.

● = Compulsory module for specialisation identified above.

n/a = This module is not available for the programme without prior notification.

Course Information

Course details

Duration: Full-time: 1 year.
Part-time: 2-3 years

Start date: Full-time: October.
Part-time: Throughout the year.

Funding: Funding opportunities exist for all options, such as School bursaries. Part-time students are often sponsored by their employers. For further information please visit: www.cranfield.ac.uk/sas/funding

Entry requirements:

Candidates must possess, or be expected to achieve, a 1st or 2nd class UK Honours degree or the international equivalent of these UK qualifications. Other relevant qualifications together with considerable industrial experience may be considered.



Who should apply

- Graduates with science, engineering, geography or related degrees keen to pursue careers in land management
- Graduates currently working in industry keen to extend their qualifications, or to pursue a career change
- Individuals with other qualifications who possess considerable relevant experience

Course overview

The course comprises eight taught modules, an integrated group project and an individual project. The modules include lectures and tutorials, and are assessed through appropriate assignments or exams. There is an emphasis on analysis of real problems, with practical field work to reinforce learning. This provides the 'tools' required for the group and individual projects.

The three elements of the course are assessed as follows:

- Taught modules 40%
- Group project 20%
- Individual project 40%

For part-time students the group project may be replaced by an individual work-based assignment with their employer organisation.

The full-time course is of 12 months' duration. Part-time students will be expected to undertake the course over a two to three year period. The modular format of the taught element permits a high degree of flexibility of attendance at Cranfield for part-time students who may commence the course at any time during the year.

Alternatively, qualifications of Postgraduate Diploma (PgDip) comprising eight taught modules and the group project, and Postgraduate Certificate (PgCert), comprising six modules selected from any of the options, are available.

Group project

The group project is an applied multidisciplinary team-based activity. It provides students with the opportunity, whilst working under academic supervision, to take responsibility for a consultancy type project. Success is dependent on the integration of various activities and working within agreed objectives and deadlines.

Individual thesis project

Students select the individual thesis project in consultation with the Course Director. The individual project provides students with the opportunity to demonstrate their ability to carry out independent research, think and work in an original way, contribute to knowledge, and overcome genuine problems in land management. Many of the projects are supported by external organisations.

SAFAD

On completion of this programme there is an opportunity to gain experience of an international development project through the development charity SAFAD. This charity is the students' own NGO, and has supported development programmes since 1969.

Why Cranfield University

Cranfield is a wholly postgraduate university with an international community and a truly global reputation. With a top five ranking for student employment on graduation, top two ranking for staff to student ratios in the UK, an excellent rating for teaching, and exceptional facilities, Cranfield makes an ideal destination for advancing careers. All courses are designed to meet the training needs of industry and have a strong input from experts in their sector. Our focus is on applied research and developing future managers, engineers, consultants and entrepreneurs.

Contact

For further information and an application form please contact:

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This document is available online or as a text file in large font.

Note: Cranfield University reserves the right to change the programme without prior notification. Information correct at time of going to print.