Land reclamation and restoration is designed to meet the increasing demands to manage and restore post-mining landscapes, brownfield and greenfield sites to the amenity, natural habitat and/or agricultural use engendered by UK Government, EU and International directives. Industry acknowledges the need for highly trained engineers and science-based professionals able to implement management strategies in response to these demands. Accredited by the Institute of Agricultural Engineers (IAgrE) and the Landscape Institute, this course aims to provide the knowledge and skills required to bridge the gap between degraded land and fully restored ecosystems. It provides the skills to assess, plan and implement strategies needed to restore, reclaim and remediate degraded land in the public and corporate sectors. Visits to relevant land reclamation sites form a major part of the programme. Students benefit from dedicated laboratories for the study of soil engineering, soil, plant and water interactions, and ecosystem behaviour. Our laboratories have specialist capabilities in soil chemistry and biology and we own land which is used for field trials and research investigations.

Course structure
The Land Reclamation and Restoration programme is made up of three components: a formal taught component comprising eight modules (40%), Group Project (20%) and Individual Thesis Project (40%).

Individual project
The four-month individual research project can be carried out within industry or academia. Part-time candidates may undertake this element of the course in their place of work. This part of the course allows you to apply the research skills acquired during the taught phase to a practical problem relating to land management.

Group project
This project provides students with the opportunity to take responsibility for a commercially-orientated, consultancy-type project with a UK-based industrial partner, while working in teams under academic supervision. It involves survey design, data collection and analysis, and synthesis and presentation of results to the client.

Future career
Students have the opportunities to obtain careers in consultancy, research, education, public and private sector industry, and jobs such as consulting engineers, conservationists, environmental and design planners/consultants, land and sustainability managers and advisors, researchers, and educationalists are all relevant. 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, non-governmental organisations (NGOs), and research organisations.

Example modules
The MSc comprises eight assessed modules consisting of lectures, practical work and site visits.

Compulsory
• GIS Fundamentals
• Soil Systems
• Soil Engineering, Contaminant and Nutrient Management
• Landscape Ecology
• Ecological Restoration

Optional
• Principles of Sustainability
• Aerial Photography and Digital Photogrammetry
• Land Engineering and Water Management
• Land Resource Planning

Duration:
MSc: Full-time - one year, Part-time - up to three years;
Pgdip: Full-time - up to one year, Part-time - two years;
PgCert: Full-time - up to one year, Part-time - two years

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

Location:
Cranfield Campus

Entry requirements
A first or second class UK Honours degree in a relevant subject; an equivalent international qualification; relevant work experience with a degree below second class Honours. Please contact us if you do not meet our formal entry requirements. More information can be found at www.cranfield.ac.uk/entryrequirements.

ATAS Certificate
Students requiring a visa to study in the UK may need to apply for an ATAS certificate to study this course.

Contact details
T: +44 (0)1234 758082
E: studyenvironment@cranfield.ac.uk

For further information please visit
www.cranfield.ac.uk/courses/taught/land-reclamation-and-restoration