Student funding available

Cranfield UNIVERSITY

Waste and Resource Management

MSc, PgDip, PgCert

Full and part-time

The waste and resource management sector is globally experiencing unprecedented change in response to national and international legislative pressure and government scrutiny. There is a drive to implement the principles of sustainable waste and resource management and life-cycle analysis. This sector therefore has an urgent requirement for well qualified staff with the technical and management expertise needed to meet the challenges of this future sustainable agenda.

The Waste and Resource Management MSc will equip you with the advanced technical and managerial knowledge, skills and capabilities to meet the requirements expected of waste managers within the industrial, government and consulting sectors.

Focus on your career

Successful completion of this course will enable you to secure positions within the waste and resource management industry, waste regulation, local authorities, environmental consultancies, process contractors, equipment manufacturers, and suppliers serving the international waste and environment sectors. Alternatively you have the option to pursue a research degree in integrated waste and resource management.

Part-time students are immediately able to deliver significant business benefits to their employer/ sponsoring company. The skills and knowledge gained will also enable progression to more senior roles in the future.

Benefit from our reputation

Cranfield University has an international reputation for its expertise in sustainability, waste and resource management. We have one of the most established research groups in the world involved in national and international research, and consulting projects with clients including Defra, the Environment Agency, SEPA, EPSRC, Shanks Group, Waste Recycling Group, SITA, Biffa Waste Services and Local Authorities. Connections allied to this qualification will increase your employability.

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 organisations. This means skills and knowledge you acquire from the programme are relevant to employer requirements.

Benefit from practical experience in your work-based projects

Project work undertaken enables you to put the knowledge and skills gained from the taught element into practise in an applied context, while gaining transferable skills in project management, team-work and independent research. Industrially orientated projects have support from industry and other external organisations. Future employers value this experience.

Part-time students are able to address their employer's real business problems supported by academic supervision.

Accredited by

CIWEM

CIWM ACCREDITED

www.cranfield.ac.uk/sas/wrm

Cranfield UNIVERSITY

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, such as School bursaries. Part-time students are usually 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 in a relevant engineering or science-based discipline, or the international equivelant of these UK qualifications. Other relevant qualifications together with considerable industrial experience may be considered.

Who should apply

- Graduates with science, applied science, engineering and related degrees keen to pursue careers in the environment sector
- Graduates currently working in the environment sector keen to extend their qualifications
- Individuals with other qualifications who possess considerable relevant experience

Course overview

The MSc course comprises an induction week followed by eight one-week assessed modules. You will gain an advanced theoretical and specialist understanding of processes and practices central to integrated waste and resource management. The taught programme progresses alongside the development of a group project(s), where you apply your skills and knowledge to address a real organisational problem. Finally, the supervised individual thesis project provides you with the opportunity to develop and demonstrate independent research ability, working within agreed objectives, deadlines and budgets.

Through this programme of study you will be able to:

- assess waste production, composition, characterisation and treatment options for waste acceptance
- select and apply appropriate existing and emerging technologies that can achieve lower waste production and landfill diversion via an integrated and cross-disciplinary approach to sustainable waste and resource management
- apply scientific, technical and engineering principles, economic consequences and risks of waste management options as best practice.

Alternatively, qualifications of Postgraduate Diploma (PgDip), comprising the eight taught modules and the group project, and the Postgraduate Certificate (PgCert), comprising five taught modules and a short design project, are available.

Modules

- Principles of Sustainability
- Waste Disposal and Resource Recovery
- Waste Treatment Processes
- Environmental Regulation in Practice
- Evaluating Sustainability
- Process Emissions and Control
- Risk Management, Toxicology, Exposure and Health
- Polution Prevention and Remediation Technologies

Structure

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

*dissertation for part-time students

Why Cranfield University

Cranfield University is a wholly postgraduate university with an international community and a truly global reputation. With 93% of graduates finding relevant jobs or going on to further study within six months of graduation, 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 engineers, managers, consultants and entrepreneurs.

Contact

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

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