

Master the Skills Behind Water and Wastewater Processes

23 JANUARY 2026



Cranfield Water Science Institute, Cranfield University

WEBINAR INFORMATION – HOUSEKEEPING RULES



- This webinar will be **recorded and made available “on-demand”** on the [IWA Connect Plus](#) platform and IWA Network website, with relevant information.
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- The opinions, hypothesis, conclusions or recommendations contained in the presentations and other materials are the **sole responsibility of the speaker(s)** and do not necessarily reflect IWA opinion.

WEBINAR INFORMATION – HOUSEKEEPING RULES



- **‘Chat’ box:** please use this for general requests and for interactive activities.
- **‘Q&A’ box:** please use this to send questions to the panelists. (We will answer these during the discussions)

Please Note: Attendees’ microphones are muted. We cannot respond to ‘Raise Hand’.

AGENDA



- **Introduction**

Afia Siddiqui , IWA

- **Course Presentation**

Dr Irene Carra, Senior Lecturer, Cranfield Water Science Institute

Dr Kristell Le Corre Pidou, Research Fellow in Water Reuse, Cranfield Water Science Institute

- **Hear From Student**

Samra Qasim, Cranfield University, UK

- **Hear From Alumnus**

Anthony Reuben, Severn Trent Water, UK

- **Q&A from audience and closing remarks**



Master the Skills Behind Water and Wastewater Processes

Cranfield Water Science Institute | United Kingdom

www.cranfield.ac.uk



Cranfield Water Science Institute - Course team



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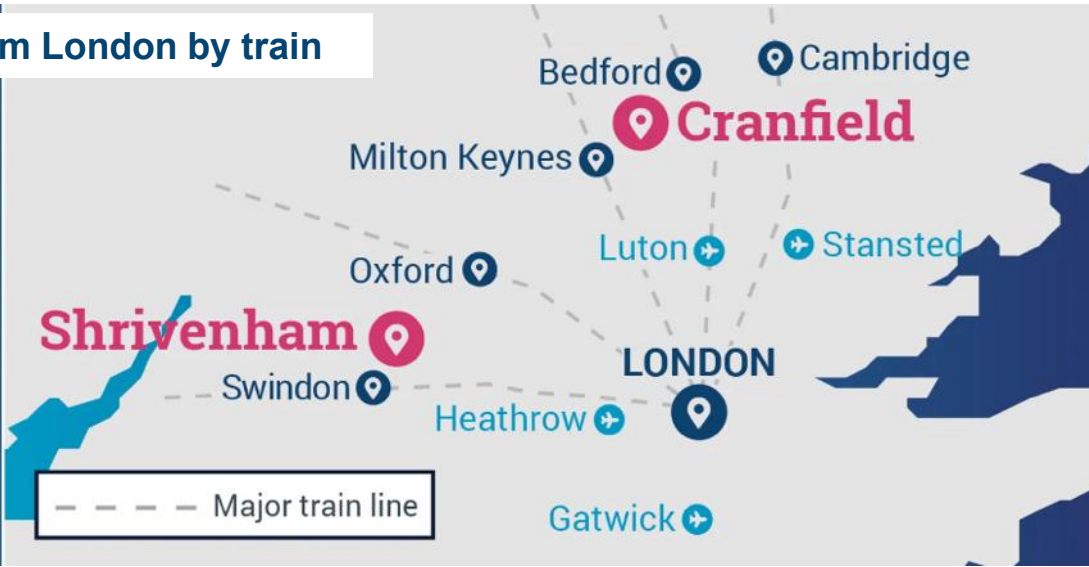


Heather Hill
Student & Academic Support (SAS)
Lead
SAS-SES@cranfield.ac.uk



Where are we?

40 min from London by train



City of Milton Keynes



Cranfield Campus



Bedford





Our MSc course themes include...



Drinking Water Treatment



Wastewater Treatment



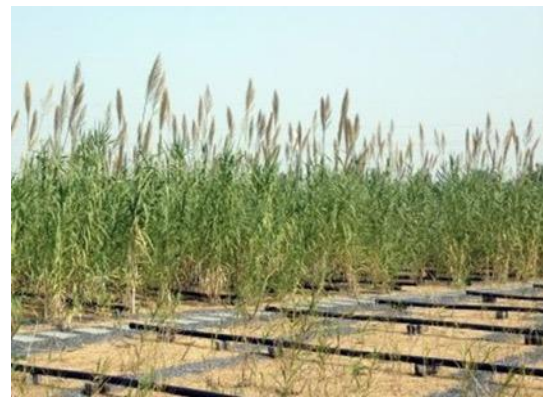
Innovative Technologies



Biosolids



Resource Recovery



Nature-based Solutions



Water Quality



Asset Management



A Course Informed by Industry



Scottish Water
Always serving Scotland



Dŵr Cymru
Welsh Water



United Utilities



South West Water



Wessex Water
YTL GROUP





Our MSc course structure

October - February

Lectures/seminars

Knowledge acquisition

Assignments

Private study



Taught
module

40%

80 credits
800 hours

February - April

Team working

Multidisciplinary

Integrate subjects

Professional skills



Group
project

20%

40 credits
400 hours

April - September

Scientific thesis

Research training

Externally linked and
funded when possible

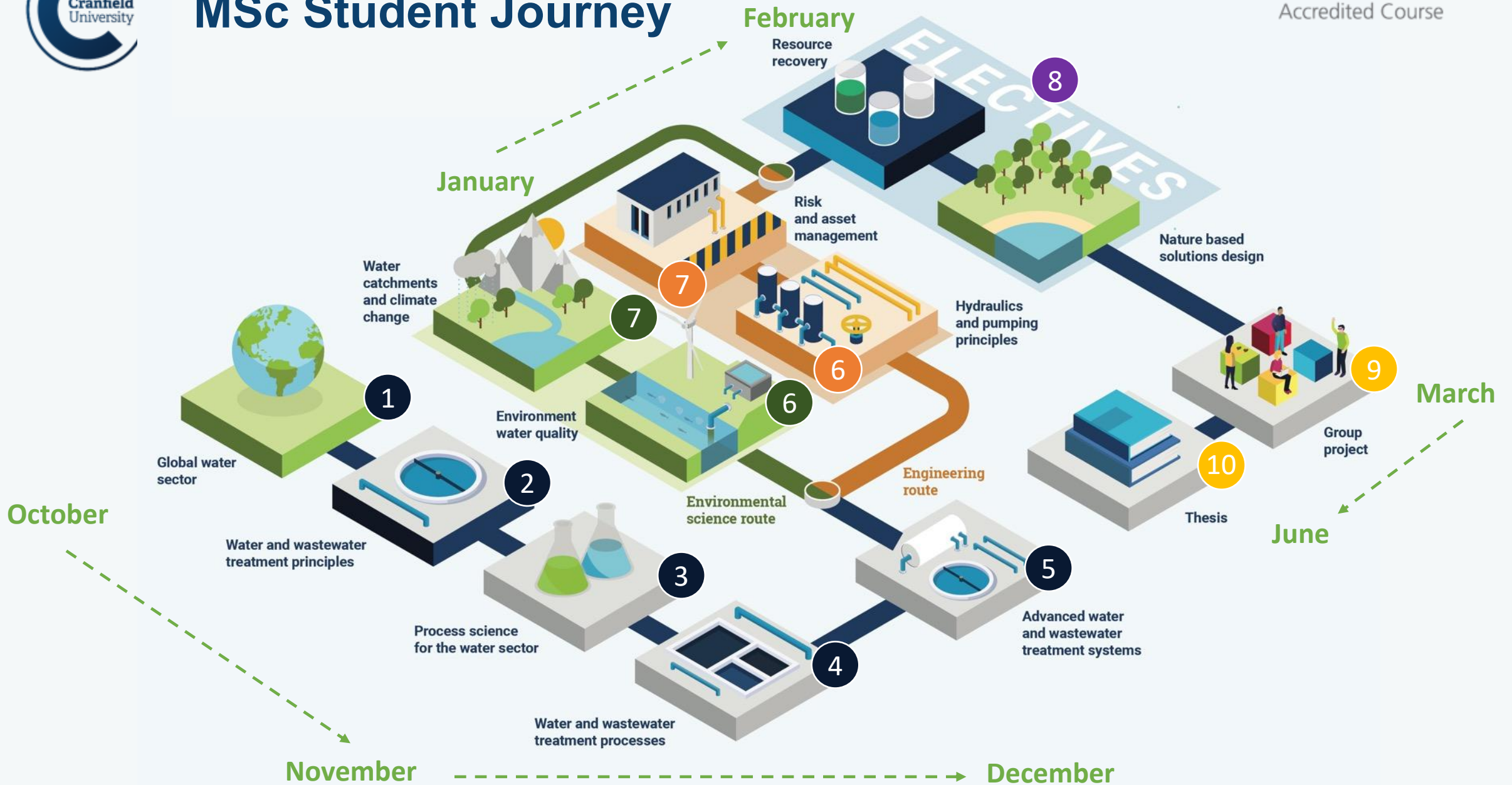


Individual
thesis

40%

60 credits
600 hours

MSc Student Journey





Our MSc course structure: taught modules

Two different routes depending on your aspirations:
Engineering and Environmental Science

Five Compulsory shared modules

- | | |
|---|---|
| 1 Global Water Sector | 4 Water and Wastewater Treatment Processes |
| 2 Water and Wastewater Treatment Principles | 5 Advanced Water and Wastewater Treatment Processes |
| 3 Process Science for the Water Sector | |

Option 1: Engineering route (2 compulsory modules)

- 1 Hydraulics and pumping principles
- 2 Risk and Asset Management

Option 2: Environmental science route (2 compulsory modules)

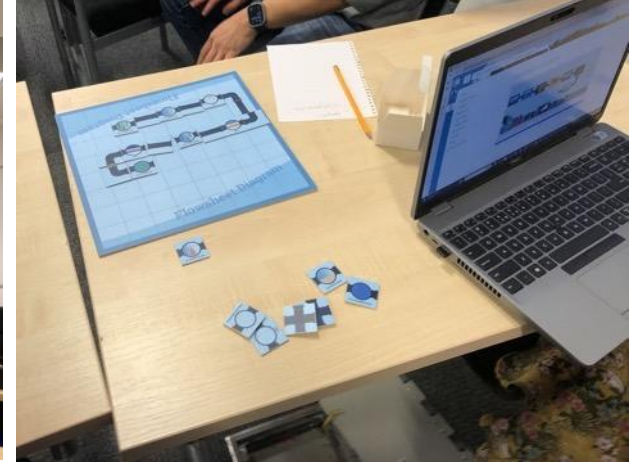
- 1 Catchments and Climate Change
- 2 Environmental Water Quality

One elective module

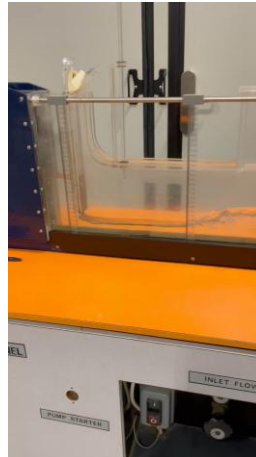
- | | |
|---------------------------------|---------------------|
| 1 Nature Based Solutions Design | 1 Resource Recovery |
|---------------------------------|---------------------|



Delivery approach



Lectures, Tutorials, Group Work...



Practicals



Field trips



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Multidisciplinary

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Professional skills



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20%

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Scientific thesis

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funded when possible



Individual
thesis

40%

60 credits
600 hours

Registration

200 credits
2000 hours

Completion



Group Projects

Our Group projects are intensive, industry-linked, team-based assignments where students apply course learning to solve real-world technical or business challenges, developing teamwork, project management, and reporting skills while delivering practical outcomes for industry partners



Some examples

- Re-imagining **small wastewater treatment** works
- Rapid assessment framework for the design of **NBS**
- Upgrading water supply for an industrial **catchment**
- **Hydrothermal oxidation** for sludge

The group project is worth 40 credits



Presentation





MSc Thesis Project

Our thesis projects are individual research projects focusing on real-world problems, often with industry partners, covering all areas of water & wastewater treatment allowing students to apply **research** skills to areas of personal interest or career goals, with support from supervisors and access to relevant facilities.



Some examples

- Minimisation of **disinfection by-products**
- Comparison of processes to treat **PFAS-laden waste streams** in drinking water
- Study and evaluation of **MBR design**
- Control of biological **NO₂ emissions**
- **Pile cloth media filtration** for resource recovery
- Unlocking the potential of **ion exchange** for natural organic matter

The thesis project is worth 60 credits

Thesis as
Scientific article



Poster
Presentation



Thesis projects sponsors



Scottish Water
Always serving Scotland



Dŵr Cymru
Welsh Water



United Utilities



South West Water



Wessex Water
YTL GROUP





Our Facilities

Canfield University Sewage Works



National Water & Wastewater Treatment Testing Facility



Analytical Facilities For Water and Wastewater Analysis





Fieldtrips

- Two to three fieldtrips in the year, including one residential
- Covered by the course



*Residential Trip, March 2025
Southern Water Region*



*Visit of Anglian Water Facilities,
October 2025*



NBS Fieldtrip, February 2025





Students' future after Cranfield

- Career Potential:
 - Water/Wastewater process engineer
 - Commissioning engineer
 - Asset manager
 - Engineering consultant
 - process scientist
 - regulatory scientist/inspector
 - Catchment scientist
 - Environmental consultant,



We equip you with the skills to be the next generation of leaders in the Water Sector



Why this course?

Very high staff:student ratio

Our link with industry

real-world problems and solutions

Flexibility -2 routes
(engineering vs environmental science)

global reach and perspective

multidisciplinary approach

Our facilities

Last year 90% of our students had secured a job before the end of the MSc course

Specialist postgraduate

A research-focused professional community

88%

of our research is world-leading or internationally excellent

Research Excellence Framework (REF) 2021

Over **£150 million**

of investment in new facilities over the past five years

Six-time winner of

the Queen's Anniversary Prize for Higher and Further Education



THE QUEEN'S ANNIVERSARY PRIZES FOR HIGHER AND FURTHER EDUCATION 2019

A professional network of **75,000+** alumni, from 177 countries

5,000+ postgraduate students from **100+ countries**

UK no.1 Teaching staff to student ratio



Life at Cranfield

Cranfield campus is set in extensive grounds which include:



Accommodation options for all



Various places of worship with multi-faith rooms



Variety of places to eat and drink



Educational facilities for students with younger children



Sports and leisure facilities



Our Technology Park with entrepreneurial businesses

"What I enjoyed the most about the course was the focused environment. The location plays a huge role in having the correct climate to learn during the condensed one-year master's course. The diverse community at Cranfield University has left me with long-lasting friends from across the globe."

Rohin Padayachee, Junior Structures Analyst - Red Bull Racing (Advanced Lightweight and Composite Str...



Off campus accommodation in Cranfield village, Milton Keynes or Bedford

Halls of residence

Family homes



- Accommodation: £570-£1320
- Monthly cost of living: £1000 on average



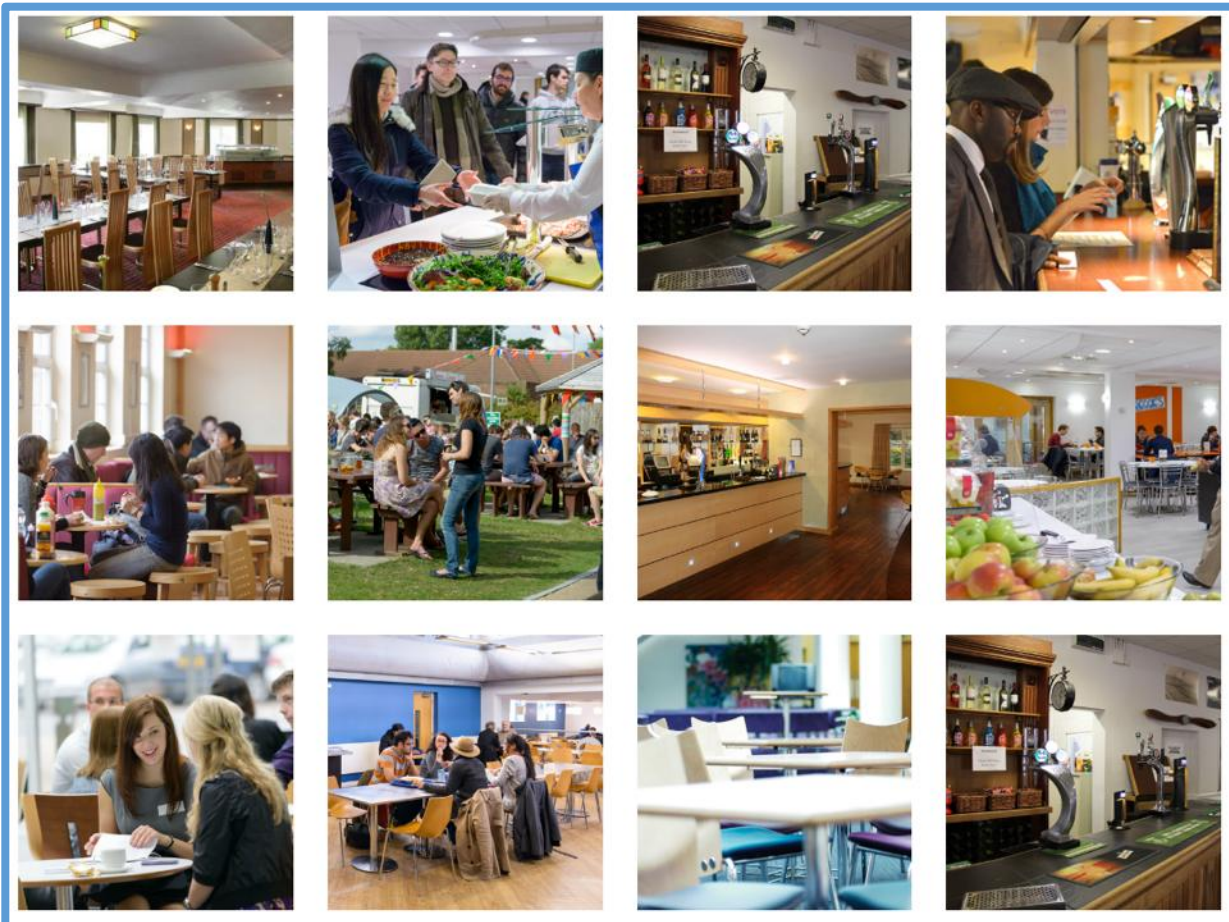


Life at Cranfield

Discover more:
Cranfield
Prospectus 2026-
2027



Eating on campus



Sports and clubs





Course Fees

Course fees	
Home 2026-27	Overseas 2026-27
MSc Full-time	£18,720
Deposit	£3,000 **

Home 2026-27	Overseas 2026-27
MSc Full-time	£12,370



IWA members receive 5% discount off fees

Funding Opportunities

To help students in finding and securing appropriate funding we have created a funding finder where you can search for suitable sources of funding by filtering the results to suit your needs. [Visit the funding finder](#)

Course Excellence Scholarships

These scholarships provide you with the opportunity to study with us and take the next steps in achieving a sustainability focused global career. These scholarships offer a 50% reduction in applicable full-time MSc course fees.

Regional Excellence Scholarships

The Regional Excellence Scholarships have been developed to attract exceptional students from around the world, who are dedicated to making a difference in their chosen specialism. These scholarships offer a 40% reduction in applicable full-time MSc course fees.

Cranfield Merit Scholarships

This funding opportunity is available to recognise academic success and enable you to enrol at Cranfield University to continue your studies as a postgraduate student. Available to full-time and part-time students from around the world who are studying one of our Environment, Agrifood, Energy or Water masters.

Mister Gees Foundation Scholarships

The Mister Gees Foundation was set up in 2017 to support and encourage young people to study water conservation and sustainable water management. A £5000 scholarship is available to a UK or international student to study full-time on the Water and Wastewater Processes MSc - Environmental Science route.

Commonwealth Shared Scholarship Scheme

Students from developing countries who would not otherwise be able to study in the UK can apply for Commonwealth Shared Scholarships for master's study, jointly supported by Cranfield University.

Water Conservators Scholarship

A UK scholarship with a fee contribution of £4,000 with £1,000 available for dissertation expenses.

Commonwealth Scholarships for Developing Countries

Students from developing countries who would not otherwise be able to study in the UK can apply for a Commonwealth Scholarship which includes tuition fees, travel and monthly stipend for master's study.

Chevening Scholarships

Chevening Scholarships are awarded to outstanding emerging leaders to pursue a one-year master's at Cranfield University. The scholarship includes tuition fees, travel and monthly stipend for master's study.

British Council Scholarships for Women in STEM

Cranfield University, in partnership with the British Council, is proud to join the Women in STEM Scholarship initiative by offering five fully funded scholarships for female students from wider Europe. We are looking for women with a background in STEM, who can demonstrate their need for financial support and who wish to inspire future generations of women to pursue careers in STEM.

Master's Loan from Student Finance England

A Master's Loan is now available for UK applicants to help you pay for your master's course. You can apply for a loan at [GOV.UK](#).

Santander Scholarship

The Santander Scholarship at Cranfield University is worth £10,000 towards tuition fees for full-time master's courses. The scholarship will be awarded to a home fee paying student who fall within one of the 11 underrepresented groups from the Office for Students.

More info



<https://www.cranfield.ac.uk/courses/taught/water-and-wastewater-processes##>



Meet our students



Samra Qasim
2025-2026



Anthony Reuben
2024-2025





Cranfield Water | Coming Webinars



Water and Wastewater Processes MSc
study for part-timers – **27 FEB 2026**

Register at:

<https://bit.ly/3Nlqg9x>



Introduction to the Water and
Wastewater Processes MSc Course
13 MAR 2026

Register at:

<https://bit.ly/4qSF4uA>



Discover our Research Facilities
27 MAR 2026

Register at:

<https://bit.ly/3ZecMim>



Webinar

Master the Skills Behind Water and Wastewater Processes

Cranfield Water Science Institute | United Kingdom



Irene.carra@cranfield.ac.uk

Q&A AND PANEL DISCUSSION

UPCOMING IWA WEBINARS & EVENTS



28 January 2026
14:00 GMT

REGISTER NOW

<https://www.iwa-network.org/iwa-learn>

Co-organiser



Learn more at

<https://www.iwa-network.org/learn/introduction-to-no-dig-technologies-and-the-istt>

UPCOMING IWA WEBINARS & EVENTS



WEBINAR

**Scaling Water Safety Plans
to Fit Small and Under-
Resourced Systems**

IWA
the international
water association

The graphic is a blue square with a white line-art illustration of a village with houses and a water tower. The word 'WEBINAR' is in large white letters at the top left. The title of the webinar is in white text in the center. The IWA logo is in the top right corner.

 **03 February 2026**
15:00 GMT

Co-organiser

REGISTER NOW
www.iwa-network.org/iwa-learn



Learn more at

<https://www.iwa-network.org/learn/scaling-water-safety-plans-to-fit-small-and-under-resourced-systems>

