Food security and the sustainability of our existing food supply chains are major challenges of our time that mankind will be facing in the coming decades. These problems are currently exacerbated by climate changes occurring globally. Thus, studying this course will inspire you to make an important mitigating contribution and reduce the impact that Climate Change is and will be having on food chains in the future.

Developed through intensive collaboration and consultation with industry, NGOs and governmental agencies, our graduates are highly valued, both nationally and internationally, in the area of sustainable food production and thus we have a very high employment rate of 94.5%* for our School. Therefore, joining Future Food Sustainability could contribute to enhancing your career in the food sustainability arena.

This course has been designed with the multidisciplinary nature of these grand societal challenges in mind. Therefore, it is the first of its kind in the UK in that it will provide you with a balanced mix of technology, science, logistics, economics and management skills (teaching shared with our internationally recognised School of Management and industry experts). With this mixture of subjects, we aim to develop your forward and lateral thinking. Hence, complementary skills such as horizon scanning and strategic foresight techniques are included so that you can build and analyse future possible scenarios that could inform policy and decision-making globally.

*(based on those for whom we hold data. Source: DLHE 2017 Collections).

Who is it for?
Recent graduates with an agricultural, food science, life science or social science-based background, that would like to pursue a career in the food industry or food-related organisations. The course is also suitable for professionals in the agricultural or food industry that would like to take their career a step further as it will help them to progress in more managerial/strategic positions within their organisations.

Our graduates are equipped with the skills to develop and evaluate future scenarios and undertake financial and economic appraisals that can facilitate decision making and risk evaluation in any food-related context.

Course structure
- Eight taught modules (40%),
- Group project (20%),
- Individual research project (40%).

Informed by industry
The course benefits from the input of an industry advisory panel (group of representatives from the food industry) which help to ensure that it maintains its real-world relevance. We lead and collaborate in diverse research and consultancy projects, both nationally and internationally.

Future career
Successful, motivated graduates from this course are expected to move swiftly into positions within food businesses, government, NGOs and research companies/institutes to engage in roles involving research, management, governance, communication and social responsibility.

Specific relevant job roles may include: technical managers, sustainability managers, technical development managers, product technologists, resilience officers, supply chain/logistics analysts, commodity analysts, regulatory affairs advisers, and policy officers.

Key information
Duration:
MSc: one year full-time, two to three years part-time,
PgDip, PgCert: one year full-time, two years part-time.

Start date:
Full-time: October. Part-time: October.

Qualification:
MSc, PgDip, PgCert.

Location:
Cranfield campus.

Entry requirements
A first or second class UK Honours degree in a relevant science or social science-based discipline; or the international equivalent of these UK qualifications. Candidates with appropriate professional experience are also invited to apply.
Overview of taught modules

Example modules

Modules form only part of the course content with the projects and theses making up the balance. Please see the course structure for details.

The list below shows the modules offered in the 2019-2020 academic year, to give you an idea of course content. To keep our courses relevant and up-to-date, modules are subject to change – please see the webpage for the latest information.

Compulsory modules
(all the modules in this list need to be taken as part of this course).

Agricultural Informatics
During this module, you are provided with an overview of advanced technologies, such as real-time field sensing, model data fusion and advanced forecasting and an understanding of the practical applications and tools for developing, managing and analysing ‘Big Data’ to better deliver food security.

Economic Valuation and Appraisal
This module explains the principles of financial and economic appraisal and you will acquire the knowledge and skills in the application of such appraisals.

Leading Corporate Sustainability
This module outlines the major sustainability challenges and explores the capabilities organisations require need to respond positively to them.

Plant-based Technologies
This module provides a critical appraisal of the role of the main plant-based technologies which can be used to advance sustainable crop production and food security. This includes a consideration of the importance of crop breeding, seed technology and crop protection with particular emphasis on future needs.

Principles of Sustainability
This module introduces the main concepts of sustainability and explores how different approaches, such as the ‘Ecosystems Services’ approach, ‘Circular Economy’ and ‘Per Capita Energy Use’, can be employed in order to resolve real-world problems and create commercial opportunities.

Soil Systems
During this module, you are able to gain a fundamental understanding of the science of soil systems and how decisions in land management affect the soil functions related to food production.

Strategic Foresight
Throughout this module you will develop an awareness of the range of methods that can be used to identify, analyse and communicate insights about the future, and how these methods could be used by both private and public sector organisations to inform a wide range of policy, risk, strategy and innovation processes.

Water and Sustainable Agrifood Systems
Providing an overview of the water requirements of crop and livestock systems, evaluating the water related impacts and risk in producing locations and exploring innovative management and technology solutions in order to minimise these impacts and risks in food supply chains.

Group project

The group project experience is highly valued by both students and prospective employers. It provides you with the opportunity to take responsibility for a consultancy-type project, working within agreed objectives, deadlines and budgets. For part-time students a dissertation usually replaces the group project.

Examples of recent group projects include:
- Hygiene profiling of a fast food restaurant,
- Assessing microbial spoilage risks of high energy snacks,
- Sustainable intensification of UK agroforestry.

Individual project

The individual thesis project, usually in collaboration with an external organisation, gives you the opportunity to develop your research capability, depth of understanding and ability to provide solutions to real industry and institutional challenges in the wider area of future food supply.

Accreditation

The MSc of this course is accredited by:

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E: studyagrifood@cranfield.ac.uk

For further information please visit www.cranfield.ac.uk/ffs