## Sustainable Food Systems BSc (Hons) (NFQ Level 8)

4 years



#### Introduction

This programme will provide students with a comprehensive understanding of the entire food chain, from on farm production to human consumption and the scientific principles underpinning it. It will explore the complex challenge of sustainably producing food to meet the nutritional requirements of a growing world population while protecting the planet's limited natural resources.

Students will develop knowledge of food production systems, policy, principles, practices and technologies alongside developing their understanding of the three pillars of sustainability and the impacts on food

production and consumption.

Skills to analyse and evaluate sustainable food systems will be developed and how to apply knowledge learned to a practical real-world industry setting through engagement with peers, lectures, guest lectures and professional work experience.

Whether interested in farming, food processing, human nutrition, or food policy, this programme will provide students with the tools they need to make a real difference to the future of how we produce, distribute, and consume food in a sustainable way.

## Course Highlight

UCD is the only university in Ireland with a dedicated School of Agriculture and Food Science. The school's teaching and research programmes span the entire food chain, from on-farm food production to human nutrition and health. Engage with and learn from leading experts in their fields throughout this programme.

Take what you learn in lectures with you as you engage and work alongside agri-food companies on their sustainability journey during your industry based professional work experience.

## What Will I Study?

#### First Year

- Introduction to Chemistry
- Information Skills
- Mathematics for Agriculture I
- Introduction to Sustainability
- Land Use and the Environment
- Introduction to Agricultural **Economics and Business**
- Animal Biology and Evolution
- Plants and People
- Introduction to Sustainable Food
- Introduction to Animal Science
- Food Diet and Health II Making **Healthy Food Choices**

#### **Second Year**

- **Applied Biostatistics**
- Food Systems Industry
- Social science, food culture and traditions
- **Soil Science Basics**
- Genetics and Biotechnology
- **Business Management**
- Principles of Crop Science
- Sustainability Challenges and Solutions
- Forests, Climate and Carbon
- Health, Welfare & Safety in Agriculture
- Sustainable Animal Production

#### Third Year

- **Environmental Data and Modelling**
- The Circular Bioeconomy
- Knowledge Transfer for Farm Innovation
- Food Poverty and Policy
- Agri-Environmental Issues and **Policy**
- Professional Work Experience
- Agrichemicals and the **Environment**
- Climate, Carbon and Soil
- Scientific Writing and Review
- Sustainable food packaging and waste management

#### **Fourth Year**

- Life Cycle Assessment
- **Developments in Food Systems**
- **Food Chain Integrity**
- **Dairy and Meat Products Precision Agriculture**
- Agri-Environmental Nutrient Management
- One Health: Plants, Animals, Humans, Environment
- Sustainability in the Human Diet
- Sustainable Food Systems Project

## Why study at UCD?



#### **Ireland's Largest University**

UCD is Ireland's largest University with more than 38,000 students registered to campuses in Dublin and overseas.



#### **Graduate Employability**

Ranked no. 1 in Ireland in QS Graduate Employability ranking



#### **Global Careers**

Dedicated careers support; 2 year stayback visa to work in Ireland



#### **Global Community**

8,500 international students and 300.000 alumni network across 165 countries



#### **Global Profile**

UCD is ranked in the top 1% of higher education institutions worldwide



#### **Welcoming Campus**

Modern parkland campus with 24 hr security. Wide range of facilities, clubs, societies and supports



# International Study Opportunities

A 16-weeks period of structured professional work experience takes place in third year. Assisted by a dedicated lecturer, students arrange this industry placements themselves. The industry placement is an excellent opportunity get new experiences, make industry contacts, and put theory from classes to practical use.

You can also elect to study abroad for one trimester in year three. There are 25 partner universities as part of the School's Semester Abroad Programme including Universities such as:

- Lincoln University
- Massey University
- · Michigan State University
- · Purdue University
- University of California (UC Davis)
- · University of Queensland

## **Entry Requirements**

#### **Leaving Certificate**

 06/H7 in English, Irish, Mathematics, a laboratory science subject and two other recognised subjects

## Career & Graduate Study Opportunities

Sustainable Food Systems highlight practices that conserve natural resources, reduce waste, support biodiversity, enhance resilience to climate change, and foster social equity.

Graduates of the Sustainability programme will be in great demand across the entire food system including in food processing, retail, distribution, sales and marketing, public sector (government departments, county councils, European agencies, international agencies), farm bodies, policy agencies, NGO and as entrepreneurs.



## Other Entry Routes

- Level 5/6 QQI-FET
- Open Learning Entry Route
- Mature Entry Route
- DARE Entry Route
- HEAR Entry Route
- University Access

### **Academic Profile**



**Dr Zoe McKay** Programme Director

As Programme Director I am delighted to bring to you this novel and exciting new programme Sustainable Food Systems. Experts within the School of Agriculture and Food Science along with guidance from industry stakeholders have designed the curriculum to develop your understanding and skill sets of how to produce safe, nutritious, and high-value food while also protecting and enhancing our natural resources and contributing to the rural and national economy. Future graduates with such skill sets will be needed to navigate the sectors sustainability (environmental, economic and social) challenges and opportunities and for Ireland to become a global leader of innovation for sustainable food and agriculture systems. This programme is unique in Ireland to UCD and offers students the opportunity to engage with and learn from leading experts in their fields. Industry engagement, professional work experience and study abroad opportunities create even greater opportunities for students to gain experience within the Irish and international Agri-Food sector. If you are interested in how we produce food sustainably from on farm production and agri-food policy to food processing and human nutrition then this programme is for you.