

University College Dublin Ireland's Global University



# MEngSc FOOD ENGINEERING (ONE YEAR FULL TIME)

The MEngSc in Food Engineering provides a comprehensive coverage of bioprocess and food manufacturing systems engineering. The programme will be of particular interest to graduates in Engineering, Science and related disciplines who are interested in food and bioprocess engineering, risk assessment, process development, process control, advanced manufacturing systems and associated environmental issues. On this programme you will

develop new technical competencies in food and bioprocess engineering, learn how to develop and execute a research plan, and acquire skills in the application of leading-edge technologies to the agri-food and biotechnology industries, including novel food processing technology, food process automation, risk assessment, computer vision for food quality and food safety. Excellent job prospects are available to graduates in the food, bioprocess, manufacturing and related agencies and industries.

# **DELIVERED BY A HIGHLY RESEARCH INTENSIVE SCHOOL**

This programme is delivered by a highly research-intensive School comprising a European Research Council Fellow and six Marie Curie Fellowships. Professors Sun and O'Donnell are in the world's top one per cent of the most cited scientists in their field. Opportunities for site visits and industry internships are provided where possible. The UCD School of Biosystems & Food Engineering consistently wins up to €3 million in annual research funding.

# WHY STUDY AT UCD?



#### **Tradition**

Established 1854, with 160 years of teaching and research excellence



#### Global profile

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



#### Global community

Over 8,400 international students from over 140 countries study at UCD



#### Global careers

Degrees with high employability; dedicated careers support; two-year stay-back visa (for non-EU students)



### Safety

Modern parkland campus with 24-hour security, minutes from Dublin city centre

#### **COURSE CONTENT AND STRUCTURE**

**90 credits** taught master's

**60 credits** taught modules

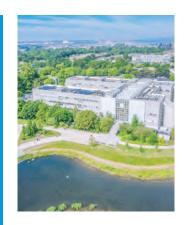
**30 credits** 

#### **MODULES INCLUDE**

- Advanced Food Process Engineering
- Bioprocess Engineering Principles
- Food Chain Integrity
- Food Refrigeration Systems
- Global Cold Chain Safety
- Life Cycle Assessment

- Quantitative Risk Assessment for Human and Animal Health
- Research and Teaching Methods
- Thesis
- Unit Operations in Bioprocess Engineering
- Waste to Energy Process & Technology

Please see online for a full list of modules





The manufacture of food and drink products is Ireland's most important indigenous industry with a turnover of €27.5 billion. Almost 50,000 people are directly employed in the food and drink sector with a further 60,000 employed indirectly in all regions of the country. The value of food and drink exports is €12 billion per annum. Excellent job prospects are available to graduates in the food, bioprocess, manufacturing and related agencies and industries in Ireland. Graduates have progressed to career opportunities in a broad range of internationally recognised companies including: Alcontrol Laboratories, APV, Coca Cola, Dairygold, Glanbia, Guinness, Kepac, and Kerry Group.

# **FACILITIES AND RESOURCES**

The School of Biosystems & Food Engineering has recently invested in excess of €600,000 in state-of-the-art facilities in spectroscopy, hyperspectral chemical imaging and chemometrics.

### **APPLY NOW**

This programme receives significant interest so please apply early online at www.ucd.ie/apply

# **ENTRY REQUIREMENTS**

- A 4-year bachelor's degree with a minimum upper second class honours (NFQ level 8) or international equivalent in a relevant Engineering, Science or Technology degree.
- Applicants whose first language is not English must also demonstrate English language proficiency of IELTS 6.5 (no band less than 6.0 in each element), or equivalent.
- Students who do not meet the IELTS requirement may wish to consider taking the Pre-Sessional or Pre-Masters Pathway. Full details https://www.ucd.ie/alc/ programmes/pathways/

#### **SCHOLARSHIPS**

- Dedicated scholarships for non-EU students
  - Apply for University Scholarship www.ucd.ie/global/study-atucdscholarshipsfinances/scholarships/
  - Apply for College scholarship www.ucd.ie/eacollege/study/ noneuscholarships
- Approved by US Dept of Education for federally supported loans

#### **WORK IN IRELAND**

Option to stay in Ireland to seek employment and/or work for 2 years after graduating.

#### **FEES**

Fee information is available at www.ucd.ie/fees

# RELATED MASTER'S PROGRAMMES OF INTEREST

- ME Biosystems & Food Engineering
- ME Management (Food Engineering) PT



# **GRADUATE PROFILE**

# Shreyansh Raj Morris Dairygold

I'm from Dehradun in India and after completing my bachelor's degree in Food Process Engineering I was looking for a course to further my knowledge in the same field and I found UCD. The School of Biosystems and Food Engineering has a very dynamic teaching environment, highly cited academics and great facilities. My professors not only guided me through the course content but also helped to steer me in the right direction career wise. Doing this master's has been really helpful and provided me with the essential skills needed to work professionally in the food industry. The course is well structured and there are modules like food processing and risk assessment which helped me to build my technical skills, and modules which help you to build your soft skills which are helpful when looking for employment especially as an international student. The UCD Career Development Centre also organises a number of career fairs, where you have the chance to meet industry professionals. This is how I managed to secure a place on Dairygold's graduate programme, which I am looking forward to starting soon.