

# Food Industry Training Unit



FOOD INDUSTRY TRAINING UNIT

*Serving the Irish Food Industry for 30 years*



School of Food and Nutritional Sciences

# MISSION STATEMENT

*“To be the leading provider of relevant, part-time education, training and sustainable continuing professional development for personnel in the food, agri-food and seafood sectors. This is achieved by developing and delivering high quality training and development, thus strengthening internal capability in the sectors.”*

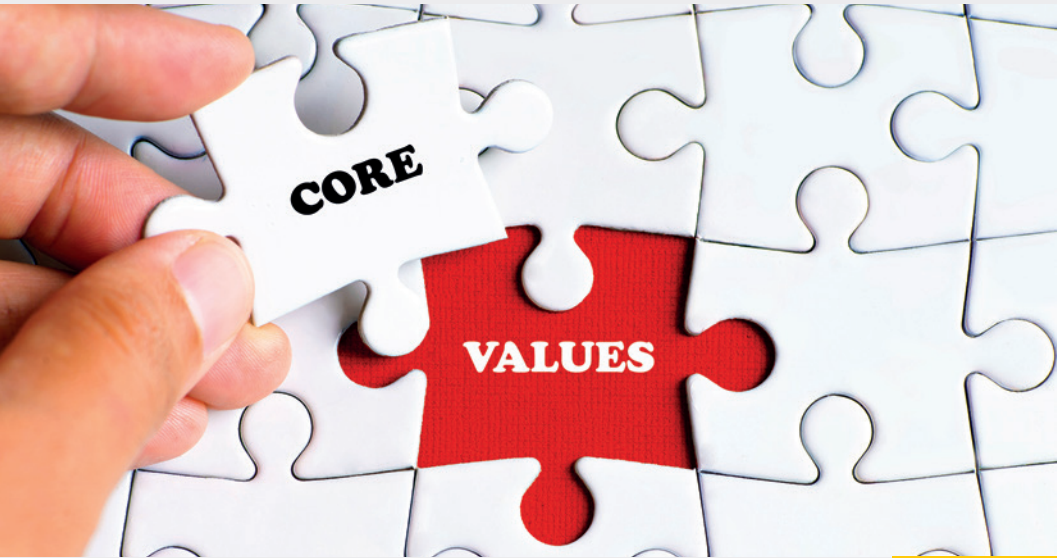


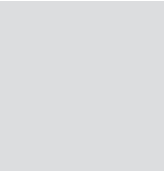
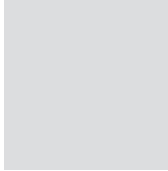
# University College Cork Values

In the Food Industry Training Unit (FITU), School of Food and Nutritional Sciences, University College Cork, our people are at the heart of everything we do. The FITU team is made up of people who are driven to excellence and empower people working in the food, agri-food and seafood sectors through part-time continuing education and training. It is our passion that motivates us to be inclusive and to make a difference and it is our sense of purpose that drives us to innovate and collaborate in partnership with internal and external partners.

The University core values are what we believe in. They provide us with a strong foundation and are as follows:

- Compassion
- Agility
- Integrity
- Respect
- Discovery
- Equity
- Accountability
- Sustainability





## Welcome

The Food Industry Training Unit is Ireland’s first and leading training provider for professional development in the food, agri-food and seafood sectors. As one of Ireland’s most vital industries, the agri-food sector faces constant changes in consumer preferences, technological advancements, and regulatory requirements. Continued professional development ensures that industry professionals remain knowledgeable and skilled, enabling them to adapt to these changes effectively and ensure long-term success and sustainability.

The unit has been collaborating with industry for over 30 years in the development, accreditation (where applicable) and delivery of part-time education for Ireland’s largest indigenous sector. At the core of our ethos is our passion and ambition to support this ever-evolving sector through excellence in training, access to the latest research and opportunities to engage in conversations with leading experts. Our programmes have been recognised with National Awards for Training and Development and are included in National Policy.

Collaboration is at the heart of our activities. We work in partnership with industry, academic experts, and state agencies to ensure our training programs are aligned with industry needs. By fostering strong partnerships, we can offer cutting-edge training programs that incorporate the latest industry trends and innovations, ensuring that our participants are well-equipped to meet current and future challenges. Participants benefit from opportunities to learn from topic experts, share insights, and network with peers across the sector.

We recognize that career progression in the food industry is not a one-size-fits-all journey. FITU offers pathways of progression tailored to the diverse needs of the sector. The flexible suite of offerings ensures that learners can opt to join a specialised webinar, a short course (often micro-credential accredited), or a full programme. Participants can also stack their qualifications and progress right through to Masters allowing each person to create their own personal progression route that fits around personal and professional commitments.

The team in the Food Industry Training Unit are committed to helping you achieve excellence in your career and contribute to the success and sustainability of the food, agri-food and seafood sectors.

With best wishes,

*Dr Amy-Jane Troy,*

Manager

Food Industry Training Unit

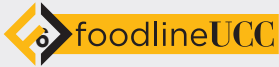
School of Food and Nutritional Sciences

College of Science, Engineering and Food Science, University College Cork

email: amyjane.troy@ucc.ie tel: 021 4903178



## Table of Contents



FITU

7-11

### PART-TIME ACCREDITED FULL PROGRAMMES

- Diploma in Food Science and Technology 12
- Diploma in Speciality and Artisan Food Enterprises 14
- Diploma in Food Manufacturing Management 16
- Diploma in Corporate Direction (Food Business) 18
- Postgraduate Certificate in Dairy Technology and Innovation 20
- Postgraduate Diploma in Dairy Technology and Innovation 22
- Masters in Dairy Technology and Innovation (work-based) 24
- Certificate in Co-operative Governance and Professional Development 26

### SHORT COURSES AND MICRO CREDENTIALS

28

- Cheese: 29
  - Cheese Science and Technology \* 29
  - Introduction to the Manufacture and Science of Cheese \* 30
- Cleaning in Place for the Food and Drink Industry \* 31
- Concentration and Drying \* 32
- Food Process Engineering Principles \* 33
- Future Agri-Leaders \* 34
- Ice Cream Science and Technology 35
- Introduction to Food Chemistry \* 36
- Introduction to the Manufacture and Science of Chocolate 37
- Lean Training Yellow belt \* 38
- Lean Training Green Belt \* 39
- Production Supervisory Programme \* 40
- Rejuvenate \* 41
- Sustainability in the Dairy Sector 42
- Sustainable success: Professional Skills for Thriving in the Agri-Food Sector 43
- The Science and Technology of Plant-based Ingredients for Food Applications \* 44
- Thermal Processing 45

### BESPOKE / CUSTOMISED TRAINING COURSES

- Dairy Science and Technology 46
- Foundation Skills in Management 46
- Microbiology 46
- Lean 46
- Leadership and Management 46

\* Receive a digital badge on completion of this course







# foodlineUCC



## Introduction

FoodlineUCC is the online leg of the Food Industry Training Unit and is dedicated to the development and provision of online courses and resources for the food, agri-food and seafood sectors. foodlineUCC was established through a collaboration between the Food Industry Training Unit, School of Food and Nutritional Sciences in University College Cork and Taste 4 Success Skillnet, foodlineUCC facilitates those working within the food, agri-food and seafood sectors to pursue a flexible and individual pathway of learning that is suited to their personal career goals.

## What foodlineUCC do:

-  **Courses** – foodlineUCC develop and provide blended and online short courses in the food, agri-food and seafood sectors in the Irish and international markets. The foodlineUCC team also provides dedicated personal support to participants who may not be familiar with online learning.
-  **E-Resources** – foodlineUCC create and distribute 'How to' Guides, Infographics and Checklists for Online Delivery and Publications on transitioning your business online.
-  **Webinars and Masterclasses** – foodlineUCC deliver regular webinars on hot topics within the food, agri-food and seafood sectors. These webinars are led by industry experts and UCC academics.
-  **Evaluations** – foodlineUCC utilise Kirkpatrick's Model of Evaluation within their courses to ensure that both course participants and employers have a clear understanding around the knowledge, skills and behaviours that should be gained from participating in a foodlineUCC course.

## Further information

If you would like to find out more about how foodlineUCC can help you, or if you would like to be added to the foodlineUCC mailing list and receive updates and free resources please visit our dedicated webpage and register your interest: <https://www.ucc.ie/en/fitu/foodlineucc/>

Further information (Contact Details)  
Dr Amy-Jane Troy,  
Project Director,  
foodlineUCC  
email [amyjane.troy@ucc.ie](mailto:amyjane.troy@ucc.ie)



# The Food Industry Training Unit





# Accreditation, Digital Badges and Micro-Credentials with FITU

The Food Industry Training Unit runs a variety of accredited and non-accredited courses. Accredited courses are in the form of Certificates, Diplomas, and Postgraduate Certificate and Diplomas which are at level 7 and level 9 on the National Qualifications Framework (NFQ). These courses run part-time over one or two years. In addition to this many of the FITU shorter courses have a digital badge or micro-credential award associated with them.

## What are Micro-Credentials and Digital Badges?

Micro-credentials and digital badges are being offered in most of the world's top ranked universities as the need to focus on the development of specific skills and knowledge acquired from short and non-accredited courses continues to increase. In FITU, digital badge credentials are awarded for a variety of our short courses. A digital badge is an image or an icon that contains data specific to a short course including the name of the institution, the course content and the learning outcomes. The main aim of the digital badge is to enable people to identify and build unique portfolios of learning. Every person will acquire a unique combination of learnings throughout their career which are specific to their goals and area of expertise. Micro-credentials and digital badges facilitate a visual representation of this journey, emphasising skills that sometimes go unnoticed or are forgotten about. Digital badges can be used by individuals to illustrate continued professional development of key skills and knowledge focusing on an individual's commitment to further development in particular areas. From an employer and career advancement perspective, digital badges can be used in conjunction with CV's on e-portfolios, LinkedIn, website, blog, etc., to supplement educational qualifications and interests showing continued progression relevant to career progression.

## Part-time Accredited Courses

- Diploma in Food Science and Technology
- Diploma in Speciality and Artisan Food Enterprises
- Diploma in Food Manufacturing Management
- Diploma in Corporate Direction (Food Business)
- Postgraduate Certificate in Dairy Technology and Innovation
- Post-Graduate Diploma in Dairy Technology and Innovation
- Masters in Dairy Technology and Innovation
- Certificate in Co-operative Governance and Professional Development

## FITU Short Courses with Digital Badge Credentials:

- Food Process Engineering Principles
- Communications and Performance Management (Production Supervisory Course)
- Conflict Management (Production Supervisory Course)
- Cheese Science and Technology
- Dairy Science & Technology and Microbiology (Production Supervisory Course)
- Foundational Principles and Tools for Lean at Green Belt
- Advanced Tools and Implementation Practicalities for Lean at Green Belt
- Introduction to the Manufacture and Science of Cheese
- Cleaning in Place for the Food and Drink Industry
- Concentration and Drying
- Lean Yellow Belt for the Food, Agri-Food and Seafood Sector
- Introduction to Chemistry
- The Science and Technology of Plant-based Ingredients for Food Applications
- Future Agri-Leaders
- Introduction to the Manufacture and Science of Cheese

Please feel free to reach out to us with a need not covered here.

# Digital Badge Images



# The FITU Team

Manager

**Dr Amy-Jane Troy**

**t:** 021 4903178

**e:** amyjane.troy@ucc.ie



After graduating with a BSc in Food Business in University College Cork in 2007, Amy-Jane became interested in the area of health claims and consumer acceptance and completed a PhD in this area in 2011. With a keen interest in health and wellness communication, she then worked as a research fellow for University College Cork focusing on projects that included consumer acceptance, novel ingredients and new product development. She has worked in the private sector, as a Communications Manager, focused specifically on increasing consumer acceptance and developing in-house communication strategies and continues to work as a Communications Advisor to European Institutions in the area of food and food supplements. In the Food Industry Training Unit in University College Cork, Amy-Jane is the Project Director of foodlineUCC, a platform for blended and online learning for the food, agri-food and seafood sectors and is very interested in the concept of personalised flexible pathways of progression for those working in the food and agri-food sector. She is the Programme Manager for the Part-time Postgraduate Certificate & Diploma in Dairy Technology and Innovation.

Programme Manager

**Aoife Sammon**

**t:** 021 4901729

**e:** a.sammon@ucc.ie



Aoife joined FITU as a Programme Manager in March 2022. She currently manages the Diploma in Corporate Direction (Food Business) programme. Aoife is a graduate of UCC, having both a BComm degree and a Masters in Food Marketing. Prior to joining FITU, she worked for 17 years in the Department of Food Business and Development, Cork University Business School, UCC supporting a number of part-time executive education programmes in the area of lean and supply chain management, as well as a number of taught postgraduate programmes in the area of food business, cooperatives, agri-food, sustainable development and food policy/management.

Programme Manager

**Clair Hoare**

**t:** 089 2466996

**e:** clairhoare@ucc.ie



Clair Joined the FITU team in August 2022 and was initially involved with the administration of the short courses offered through foodlineUCC. Clair is the programme manager for the Diploma in Speciality & Artisan Food Enterprise programme. Previously Clair worked in the food industry for 30+ years in the area of production management, new product development and compliance with large multinational companies. In recent years she has worked closely with artisan food producers in the area of food safety, compliance and 3rd party certification.

# The FITU Team

Programme Manager

**Dr Nadia Grasso**

**t:** 083 8999296

**e:** ngrasso@ucc.ie



Nadia joined FITU in August 2022. She completed a PhD in Food Science and Technology in 2023 with a project on plant-based cheese alternatives. Nadia is currently managing the Diploma in Food Science and Technology, the Postgraduate Diploma and MSc in Dairy Technology and Innovation, as well as some short courses. With a passion for exploring alternatives to animal-based foods, Nadia is dedicated to advancing sustainability, food science, and food innovation. Her expertise extends beyond research, encompassing a keen interest in science communication, professional development, and fostering industry training and innovation.

Financial Administrator

**Catherine Connell**

**t:** 021 4903178

**e:** fitu@ucc.ie



Catherine worked in finance in Irish Steel for ten years. She graduated as an Accounting Technician and has experience in credit management, invoicing, bank reconciliations and ledger maintenance. She has been part of the Food Industry Training Unit team since 2015. She is the financial point of contact for Certificate and Diploma programmes.

Training and Learning Manager, foodlineUCC

**Vicky Snook**

**t:** 021 4902799

**e:** vicky.snook@ucc.ie



Vicky joined FITU in July of 2020 as the Training and Learning Manager for foodlineUCC. Vicky's focus is to help create online and blended learning environments and experiences where individuals can continuously develop to be their best. With a BA in Applied Psychology and a Postgraduate Diploma in Coaching and Coaching Psychology Vicky worked in private industry for 13 years prior to joining UCC. Vicky has a QQI Level 6 in Training Needs Analysis, Design, Delivery and Evaluation and has Bronze Level Kirkpatrick Certification. Vicky has also completed a Postgraduate Certificate in Teaching and Learning for Higher Education.

Administrator

**Bernie O'Connell**

**t:** 021 4903178

**e:** b.oconnell@ucc.ie



Bernie joined FITU in November 2020. Previously, she worked as an Administrator in the BIOMERIT Research Centre, which is part of the Microbiology Department, in UCC. Prior to this she spent 12 years as Data Analyst in Apple Computer.



# Part-time Diploma in Food Science and Technology

Blended  
Level  
7



Length

1 year part-time  
for Certificate  
2 years part-time  
for Diploma



Location

University  
College Cork  
and online



Start Month

October

# Part-time Diploma in Food Science and Technology

Blended  
Level  
7

## Introduction

This Diploma course is designed for those who wish to develop a good understanding of the basic principles of food science, food technology and food business. The wide-ranging content acts as a strong foundation for participants who wish to develop their careers within the food, agri-food and seafood sectors. Particular emphasis is placed on linking scientific principles with their practical application in industry.

### Programme Content:

The programme is taken on a part-time basis over two academic years. It is delivered in a blended format with a mix of online and on campus sessions. The scheduling of sessions over 10 Friday afternoon and Saturday sessions from October to May each year allows for students to attend while minimising the impact on work commitments. Candidates who successfully complete first year may elect to leave the programme with a Certificate in Food Science and Technology.

The course aims to provide students with an understanding of:

- Food Chemistry
- Food Microbiology
- Food Processing Technology
- Food Engineering
- Nutrition
- Food Safety and Quality
- Food Marketing and Innovation

Students are also required to complete work-related project assignments.

### Further information (Contact Details):

#### Dr Nadia Grasso

Programme Manager  
Food Industry Training Unit  
School of Food and Nutritional Sciences  
College of Science, Engineering and Food Science  
University College Cork

Tel: 021 4903114  
email: ngrasso@ucc.ie  
web: www.ucc.ie/en/fitu





# Diploma in Speciality and Artisan Food Enterprises

Blended  
Level  
7



An Roinn Talmhaíochta,  
Bia agus Mara  
Department of Agriculture,  
Food and the Marine



Length  
1 year part-time



Location  
University  
College Cork  
and online



Start Month  
October

# Diploma in Speciality and Artisan Food Enterprises

Blended  
Level  
7

## Introduction

This course is intended for individuals who are starting a speciality/artisan food business, from the farm, home or production facility and who are interested in growing an existing speciality/artisan food business. It will also be of interest to those individuals who are involved in this sector as producers, retailers, chefs, buyers and food writers.

### Programme Content:

The Diploma is delivered using a blend of mostly on-line teaching methods, in combination with several face-to-face classroom sessions.

The programme is made up of lectures, demonstrations, workshops and case studies. It takes place on a part-time basis from October to May, typically every three weeks or so, on Tuesday and Wednesday (9:00 – 17:00). On completion of the programme, students submit a project assignment, which is designed to integrate and apply the knowledge and skills obtained on the course in a practical way.

The course syllabus integrates theory and practice across a range of topics including:

- Local Food Production Systems
- Food Production and the Environment
- Food Technology
- Nutrition
- Plant Hygiene and Design
- Food Microbiology
- Risk Analysis / HACCP
- Food Chemistry
- Food Packaging
- Speciality Food Marketing and Distribution
- Managing Speciality Food Enterprises

**Fee:** €2800 The Department of Agriculture, Food and the Marine provide 64% of the fee for eligible applicants.

### Further information (Contact Details):

**Clair Hoare**  
Programme Manager  
Food Industry Training Unit  
School of Food and Nutritional Sciences  
College of Science, Engineering and Food Science  
University College Cork

Tel: 089 2466996  
email: [clairhoare@ucc.ie](mailto:clairhoare@ucc.ie)  
web: [www.ucc.ie/en/fitu](http://www.ucc.ie/en/fitu)





# Part-time Diploma in Food Manufacturing Management

Blended  
Level  
7



Length

1 year part-time



Location

Varied locations  
around Ireland  
and online



Start Month

September

# Part-time Diploma in Food Manufacturing Management

Blended  
Level  
7

## Introduction

The Diploma aims to provide relevant management education to delegates across all areas of business with specific emphasis on food and beverage manufacturing and operations management. The programme will also develop interpersonal skills and enhance confidence in each member of the group. The programme is suitable for a wide range of participants within a food and drink manufacturing environment who will be capable of quickly utilising new skills and knowledge to achieve quantifiable results for the company's business.

### Programme Content:

The programme is run over an academic year (September to April) and consists of 7 food business modules (including an in-company food industry project) delivered in block release format at selected venues around Ireland. Led by academic and industry experts, each module will equip participants with practical insights directly applicable to their workplace.

### Workshop themes Include:

- Business Planning
- Finance
- Sales and Marketing
- Lean Manufacturing
- Supply Chain Management
- Regulatory/Compliance Management
- Organisation Development
- Teambuilding
- Communication and Presentation Skills
- Personal and Business Development

### Further information (Contact Details):

#### Aoife Sammon

Programme Manager  
Food Industry Training Unit  
School of Food and Nutritional Sciences  
College of Science, Engineering and Food Science  
University College Cork

Tel: 021 4901729  
email: a.sammon@ucc.ie  
web: www.ucc.ie/en/fitu





Diploma in Corporate Direction (Food Business)

Blended  
Level  
7



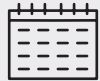
Length

7 months  
part-time



Location

Varied locations  
around Ireland  
and online



Start Month

June

Diploma in Corporate Direction (Food Business)

Blended  
Level  
7

Introduction

The Diploma in Corporate Direction (Food Business) is a Management Development Programme for co-operative board members and senior management. This innovative programme was developed by the Irish Co-operative Organisation Society and University College Cork and is designed to address the special needs of co-operative board members and senior management in a rapidly changing agri-business environment.

**Programme Content:**

The key aim of the programme is to improve the capabilities of directors and senior management in positively influencing the strategic direction and corporate governance of food companies in Ireland. Participants will build on existing skills and develop new management capabilities in a highly interactive learning environment stimulated by academics and industry practitioners.

The programme is directed at board members and senior managers, aspiring board members, members of committees, owner managers in the co-operative and agri-food sectors. Suitable candidates from other related disciplines who wish to develop their skills in these sectors will also be considered.

The programme is blended in nature with a mixture of online and face-to-face workshops. The programme consists of seven 2-day and one 3-day modules. Applied assignments and an in-company project will be completed by each participant and are a compulsory part of the course. There are no formal end of year written examinations in this Diploma. Modules consist of lectures and case studies presented by academics and industry practitioners. Assignments and the end-of-year project, completed by each participant, are a compulsory part of the course and facilitate the application of theory and practice to organisational issues. These assignments and project are an integral part of the course and have proved to be very useful management tools in the participating companies.

The programme consists of seven 2-day and one 3-day workshops.

- Corporate Governance
- Communication and Presentation Skills for Food Organisations
- Leadership, Organisation Development and Change in Food Organisations
- Strategic Management in Food Organisations
- New Technologies, Future Food Developments
- Policy and Regulatory Environment for the Food Sector
- Financial Appraisal for the Food Industry
- International Marketing for the Food Industry

**Further information (Contact Details):**

**Aoife Sammon**

Programme Manager  
Food Industry Training Unit  
School of Food and Nutritional Sciences  
College of Science, Engineering and Food Science  
University College Cork

Tel: 021 4901729  
email: a.sammon@ucc.ie  
web: www.ucc.ie/en/fitu





# Postgraduate Certificate in Dairy Technology and Innovation

Blended  
Level  
9



Length

Two blocks  
(10 days)



Location

University  
College Cork,  
Teagasc Cork  
and online



Start Month

September

# Postgraduate Certificate in Dairy Technology and Innovation

Blended  
Level  
9

## Introduction

This is the first offering of a stackable qualification in Dairy Technology and Innovation delivered in close collaboration with Teagasc. UCC and Teagasc have a long history of collaboration, as recognised by a strategic alliance (UCC-Teagasc Food Innovation Alliance) to build greater critical mass in food research. UCC is also now home to the UCC Dairy Science Centre of Excellence. Under the direction of Professor Seamus O'Mahony, this Centre drives excellence in Dairy Science across research, education and training. Together with the Teagasc Food Research Centre, Moorepark, the greater Cork area now has one of the largest and most active dairy research clusters in the world. Drawing on these strengths and in light of industry's needs for upskilling and continuing professional development at the postgraduate level, UCC has developed and launched a stackable blended pathway of progression in Dairy Technology and Innovation.

### Programme Content:

In line with the development of a knowledge economy, this qualification will enable and empower dairy industry personnel and those wishing to join the industry the opportunity to develop a deeper scientific understanding of dairy systems and embrace new technological developments in dairy processing as they continue to develop their skills in dairy specific areas, and implement best practice internationally. The Postgraduate Certificate in Dairy Technology and innovation offers an opportunity for progression onto the Part-time Postgraduate Diploma and work-based Masters in Dairy Technology and Innovation.

The programme is delivered by blended learning, involving a combination of online and in-class sessions. In-class sessions to encourage interaction and group formation, will be delivered via block release one week in October (Semester 1) and a second week in late January/early February (Semester 2). All exams and assignments are in the form of continuous assessment.

This level 9 qualification is part-time and consists of two blocks weeks (10 days) of face-to-face lectures and is supported by live tutorials and online lectures. To suit the seasonal nature of the Irish dairy industry it runs from October to March.

### Who should attend:

The programme is directed at those who have completed an NFQ Level 8 Programme (or equivalent in food science, nutritional sciences, microbiology, biochemistry or related biological sciences with a minimum second class honours (grade 2), ideally with experience in the dairy industry.

Diplomates of UCC's Level 7 Diploma in Food Science and Technology with a minimum of a second class honours (grade 1) and a minimum of two years' work experience have the opportunity to take part in this programme.

Students take modules to the value of 30 credits as follows:

- Milk production and quality
- Dairy chemistry
- Business processes across the supply chain
- Dairy processing technology
- Dairy microbiology
- Trends and dynamics across dairy markets

### Further information (Contact Details):

#### Dr Amy-Jane Troy

Programme Manager  
Food Industry Training Unit  
School of Food and Nutritional Sciences  
College of Science, Engineering and Food Science  
University College Cork

Tel: 021 490 3178

email: amyjane.troy@ucc.ie

web: www.ucc.ie/en/fitu





# Postgraduate Diploma in Dairy Technology and Innovation

Blended  
Level  
9



Length

September to  
March part-time



Location

University  
College Cork,  
Teagasc Cork  
and online



Start Month

September  
2025

# Postgraduate Diploma in Dairy Technology and Innovation

Blended  
Level  
9

## Introduction

This is the second offering in the stackable qualification in Dairy Technology and Innovation. The diploma allows those who have completed the part-time Postgraduate Certificate in Dairy Technology to develop and expand on key concepts underpinning the dairy processing technology sector and the innovations that advance its development. In order to suit the seasonal nature of the dairy industry, this programme is delivered online, and by block-release, over one academic year from late September to December and January to March.

### Programme Content:

This Postgraduate Diploma in Dairy Technology & Innovation supports the further education and training requirements of applicants having completed the Certificate in Dairy Technology and Innovation and will enable participants to develop key skills to address the challenges facing the dairy industry.

The programme is delivered by blended learning, involving a combination of online and in-class sessions. In-class sessions to encourage interaction and group formation, will be delivered via block release over one week in late October/early November (Semester 1) and a second week in February (Semester 2). All exams and assignments are in the form of continuous assessment.

This level 9 qualification is part-time and consists of two blocks weeks (10 days) of face-to-face lectures and is supported by live tutorials and online lectures. To suit the seasonal nature of the Irish dairy industry it runs from late September to March.

### Who should attend:

The postgraduate Diploma in Dairy Technology and Innovation is only available to those students who have successfully completed the PG Certificate in Dairy Technology and Innovation.

Students take modules to the value of 30 credits as follows:

- Advanced topics in dairy biochemistry
- Sustainability in the dairy sector
- Thermal processing
- Cheese science and technology
- Ice cream science and technology
- Technologies for fractionation, concentration and drying in dairy processing

### Further information (Contact Details):

**Dr Nadia Grasso**  
Programme Manager  
Food Industry Training Unit  
School of Food and Nutritional Sciences  
College of Science, Engineering and Food Science  
University College Cork

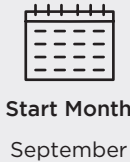
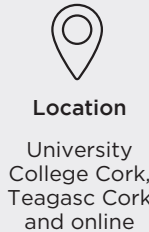
Tel: 021 4903114  
email: [ngrasso@ucc.ie](mailto:ngrasso@ucc.ie)  
web: [www.ucc.ie/en/fitu](http://www.ucc.ie/en/fitu)





Masters in Dairy Technology and Innovation (work-based)

Level  
9



Masters in Dairy Technology and Innovation (work-based)

Level  
9

Introduction

This is the third offering in the stackable qualification in Dairy Technology and Innovation. This part-time work-based Masters supports individuals in completing their Masters on a topic of relevance to the sector and of importance to their place of employment. The individual will be supervised by a member of the UCC Programme Team and mentored by a work-based colleague. The duration of the Masters is one calendar year.

**Programme Content:**

The MSc programme enables learners to utilize, and develop to the next level, the knowledge they have gained and apply it to a work-based research project.

This is a work-based programme. Participants will be based in their place of work and will meet regularly with their workplace mentor and UCC academic supervisor. Participants will have full access to all of the normal student services in UCC including the library, skills centre and online facilities.

Part-time over one academic year.

**Entry Requirements**

The part-time Masters in Dairy Technology and Innovation is only available to those students who have successfully completed the PG Diploma in Dairy Technology and Innovation.

This is a part-time work-based programme and participants will undertake a research dissertation in Dairy Technology and Innovation to the value of 30 credits. Combined credits over the three-year pathway (30 credits from the PG Certificate, 30 credits from the PG Diploma and 30 credits from the MSc) will culminate in 90 credits towards the final qualification of MSc in Dairy Technology and Innovation.

**Further information (Contact Details):**

**Dr Nadia Grasso**  
Programme Manager  
Food Industry Training Unit  
School of Food and Nutritional Sciences  
College of Science, Engineering and Food Science  
University College Cork

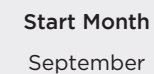
Tel: 021 4903114  
email: ngrasso@ucc.ie  
web: www.ucc.ie/en/fitu







**Length**  
September  
to May



Tel: 021 490 3178  
email: amyjane.troy@ucc.ie  
web: [www.ucc.ie/en/fitu](http://www.ucc.ie/en/fitu)





# Short Courses

The Food Industry Training Unit runs a variety of short courses (face-to-face and online) over a wide array of subjects. A number of our short courses are supported by a Digital Badge. A digital badge is a micro-credential, which is awarded to a participant upon successful completion of a course. The digital badge holds information in relation to the course, the topics covered, the skills acquired, the year it was achieved and the awarding institution. UCC’s digital badges are referred to as open badges which allows them to be displayed on your online/e-portfolio to support continued professional development.

**Our Short Courses include:**

- Cheese Science and Technology
- Food Process Engineering Principles
- Production Supervisory Programme
- Concentration and Drying
- Cleaning in Place for the Food and Drink Industry
- Sustainability in the Dairy Sector
- Introduction to the Manufacture and Science of Cheese
- Lean Yellow and Green Belt
- Rejuvenate
- Introduction to Food Chemistry
- The Science and Technology of Plant-based Ingredients for Food Applications
- Future Agri-Leaders
- Introduction to the Science and Manufacture of Chocolate

**Bespoke / Customised Training includes:**

- Dairy Science and Technology
- Foundation Skills in Management
- Microbiology
- Lean
- Leadership and Management



# Cheese Science and Technology

## Introduction

This intensive three-day course provides participants with knowledge of the principles of the science of cheese manufacture and ripening in addition to covering yield efficiency, processed cheese, cheese as an ingredient, and the acceleration and control of ripening. This course will span the range from introductory to advanced topics. The course is delivered in University College Cork every year according to demand.

**Programme Content:**

The topics covered in this course include the following:

- Cheese as a product
- Diversity of cheese
- Dairy chemistry – casein, whey proteins, fat
- Milk pre-treatment
- Rennet gelation, syneresis
- Starters and acidification
- Cutting, cooking, whey drainage
- Curd treatment
- Ripening; overview and control, microbiology
- Metabolism of lactose, lactate, citrate
- Lipolysis
- Proteolysis
- Amino acid catabolism
- Acceleration and control of ripening
- Yield efficiency
- Processed cheese
- Cheese as an ingredient

**Who should attend:**

Cheese manufacturers, Quality personnel, Research and development personnel, Food graduates who need a refresher course. Some knowledge of food science would be beneficial.

**Lead Trainers**

**Paul McSweeney is a Professor of Food Chemistry in University College Cork, Ireland and also the University’s Vice-President for Learning and Teaching.** The overall theme of his research is dairy biochemistry with a particular emphasis on cheese ripening and flavour development. He is the co-editor of 15 books and over 275 research papers and reviews. He was awarded the Marschall Danisco International Dairy Science Award (2004) and a higher doctorate (DSc) on published work by



the National University of Ireland. Professor McSweeney teaches most of UCC’s main undergraduate course in fermented dairy foods and has taught graduate-level courses in cheese science in universities and research institutes in Mexico, Argentina, Turkey, Italy, South Africa, Czech Republic and Finland

**Dr Tim Guinee recently retired as a Principal Research Officer at Moorepark Food Research Centre (MFRC), Teagasc, Ireland.** He graduated with a B.Sc. in Dairy Science and a Ph.D. in Dairy Chemistry from University College Cork. He worked as a Senior Researcher Scientist in commercial R&D in Ireland, Germany and US on various aspects of cheeses (natural, processed, analogue types) and applications of milk protein ingredients in cheese and fermented milk products. He joined Teagasc, which succeeded An Foras Taluntais, in 1987. The overall theme of his research is in food chemistry and technology with particular interest in the structural, rheological, and functional characteristics of composite high-protein matrices, and the exploitation of this knowledge in food manufacture, assembly and formulation, with particular emphasis on cheese and fermented dairy-based products. He has extensively studied the influences of various factors on the properties of these products, including milk composition, processing treatments, gelation conditions, added ingredients (proteins, biopolymers), and ageing. He is co-author of over 100 scientific publications, and 3 books on various aspects of cheese. He is an editorial board member for International Dairy Journal, and Adjunct Professor at the College of Science, Engineering and Food Science, University College Cork.

**David Waldron** is a Chief Technical Officer in the School of Food and Nutritional Sciences, UCC, with responsibility for the practical education of students in dairy science and technology since 1998. He is also involved in postgraduate and industry-focused research. Over the past decade, David has developed and delivered industry training courses and workshops for Irish and international industry.

**Further information (Contact Details):**

**Vicky Snook**

Training and Learning Manager (foodlineUCC)  
Programme Manager  
Food Industry Training Unit  
School of Food and Nutritional Sciences  
College of Science, Engineering and Food Science  
University College Cork

Tel: 021 4902799  
email: vicky.snook@ucc.ie



# Introduction to the Manufacture and Science of Cheese

## Introduction

This introductory level course will provide participants with knowledge of the basics of dairy and cheese science, and the key steps involved in cheese manufacturing. The course will consist of a blend of classroom and practical elements.

### Programme content:

**Day 1:** Basic principles of cheese manufacture; Diversity of cheeses/sensory session; Ripening basics

**Day 2:** Practical session, UCC Pilot plant

### Who should attend:

Cheese plant operators, new entrants, Non-technical cheese sector personnel, Non-manufacturing cheese sector personnel, Start-up farmhouse and small-scale cheese manufacturers

The topics covered in this course include:

- Milk composition, standardisation, and pasteurisation
- Cheese Starters
- Coagulation, syneresis, cooking
- Salting/brining
- Sensory aspects of cheese

### The Lead Trainers

**Paul McSweeney** is a Professor of Food Chemistry in University College Cork, Ireland and also the University's Vice-President for Learning and Teaching. The overall theme of his research is dairy biochemistry with a particular emphasis on cheese ripening and flavour development. He is the co-editor of 15 books and over 275 research papers and reviews. He was awarded the Marschall Danisco International Dairy Science Award (2004) and a higher doctorate (DSc) on published work by the National University of Ireland. Professor McSweeney teaches most of UCC's main undergraduate course in fermented dairy foods and has taught graduate-level courses in cheese science in universities and research institutes in Mexico, Argentina, Turkey, Italy, South Africa, Czech Republic and Finland.



**David Waldron** is a Chief Technical Officer in the School of Food and Nutritional Sciences, UCC, with responsibility for the practical education of students in dairy science and technology since 1998. He is also involved in postgraduate and industry-focused research. Over the past decade, David has developed and delivered industry training courses and workshops for Irish and international industry.

### Course fee:

The fee is €750, which includes tuition, course manual and catering. Taste4Success Skillnet will provide part-funding for this course. There is a Digital Badge award associated with this course.

### Further information (Contact Details):

#### Vicky Snook

Training and Learning Manager (foodlineUCC)  
Programme Manager  
Food Industry Training Unit  
School of Food and Nutritional Sciences  
College of Science,  
Engineering and Food Science  
University College Cork

Tel: 021 4902799  
email: vicky.snook@ucc.ie



# Cleaning in Place for the Food and Drink Industry

## Introduction

Cleaning in Place for the Food and Drink Industry is a 2-day online training course covering both fundamental and advanced aspects of CIP.

### Programme Content:

#### Day 1

- Safety and environmental aspects of CIP
- What are the 4 T's and how they each affect the outcome of your CIP
- CIP Delivery Systems
- CIP system safety
- Water quality and its effects on CIP
- Verification and validation
- Post-CIP testing (chemical/microbiological) Detergents
- Common Issues with CIP Systems

#### Day 2

- What is Clean - Prerequisites for successful cleaning /requirements.
- Factors influencing cleaning
- Review of Cip systems, Water, and chemicals.
- Safety and environmental aspects of CIP.
- Different Cip systems and the 4 T's?
- Common issues with CIP Verification – Is your plant doing what it was designed to do?
- What are you measuring and how do you report it?
- Determine if your plant is compliant – producing objective evidence.

### Who should attend:

Operations Staff, Technical staff, Project Managers, Quality control and Assurance Hygienists, Research and Development Staff, New Product Development Staff, Staff who operate and manage dairy and food processing plants, Staff who work in plant optimisation, Staff planning new investments in plant and hygiene equipment.

### Lead Trainers

**Nial Mullane** is a UCC graduate of Dairy Science and has 35 years' experience across several blue-chip companies in both the UK and Ireland in soft drinks manufacture with Coca Cola, Aseptic packaging of juices, milk, and sauces with Tetra Pak and both liquid UHT and powdered infant formula manufacture with Wyeth Nutrition. He has held project management, validation, and senior operation management roles in these companies. Nial has been a CIP champion for many years and frequently



lectures in University College Cork, and is a Director of Northstar Training and Advisory.

**John Creedon** has over 33 years' experience in the Irish Food and Drinks industry in brewing, dairy spreads, milk powders, confectionary, and infant formula. Having graduated from UCC with a BSc (Food Business) and later from TU Dublin with a MSc (Environmental Health Risk Management), he has worked in various quality, manufacturing, operational excellence, and training roles with Heineken, Glanbia, Danone, Pfizer, and Wyeth (now Nestle). He is currently responsible for training and learning including the development of subject matter experts in areas such as wet processing, drying, cleaning in place, filling, and packaging of infant formula across the five dimensions of safety, environment, quality, operational and financial performance.

### Further information (Contact Details):

#### Vicky Snook

Training and Learning Manager for foodlineUCC  
Food Industry Training Unit  
School of Food and Nutritional Sciences College of Science,  
Engineering and Food Science,  
University College Cork

Tel: 021 4902799  
email: vicky.snook@ucc.ie





# Concentration and Drying

## Introduction

This course has been designed to introduce course attendees to the principles of concentration and drying technologies utilised in dairy industry, and the factors which can affect final product quality and functionality. Attendees will get to know the different methods for concentration and drying of dairy and food ingredients such as membrane filtration, evaporation and spray drying. This training will be especially valuable to anyone involved with dairy operations, design, quality testing and/or projects dealing with concentrated dairy streams.

### Programme Content:

- Milk composition
- Seasonality
- Milk quality and testing at intake
- Primary dairy processing technologies
- Heat treatment of milk
- Cleaning In Place
- Membrane processing
- Fundamentals of evaporation
- Evaporation technologies
- Principles of spray drying
- Spray drying technologies
- Powder technologies and properties



### Who should attend:

Production staff and plant operators, supervisors and team leaders wishing to upskill, Technical and quality personnel, R&D and NPD personnel, Graduates who need a refresher course

### Lead Trainers

**Dr Tom O'Callaghan** graduated from UCC with a BSc in Food Science in 2014 and PhD in Science in 2018. In 2017, Tom took up the position of Research Officer in Teagasc Moorepark Food Research Centre. Tom joined University College Cork in May 2020, as College Lecturer in Food Science and Technology within the School of Food and Nutritional Sciences. Tom's research has focused on food chemistry, nutrition and processing technologies across the supply chain. Tom is a Principal Investigator with Food For Health Ireland and the Dairy Processing Technology Centre and is an Academic Collaborator with VistaMilk, an SFI research centre.

**Dr Seamus O'Mahony** is a Lecturer in Food Science at University College Cork and leads the Food Ingredients Research Group within the School of Food and Nutritional Sciences. The research interests of the group are focused on four main platforms: (1) ingredient development and functionality, (2) powder technology and engineering, (3) formulation science and technology and (4) bio-functional food ingredients. He has published over 130 peer-reviewed scientific papers, 15 book chapters and edited or co-authored 3 books over the last 10 years and has secured >€7m in competitively won research funding since joining UCC. Dr O'Mahony holds an MA in Teaching and Learning in Higher Education and works closely with the UCC Food Industry Training Unit in developing and delivering research-led training courses.

**Nial Mullane** is a UCC graduate of Dairy Science and has 35 years' experience across several blue-chip companies in both the UK and Ireland in soft drinks manufacture with Coca Cola, aseptic packaging of juices, milk, and sauces with Tetra Pak and both liquid UHT and powdered infant formula manufacture with Wyeth Nutrition. He has held project management, validation, and senior operation management roles in these companies. Nial has been a CIP champion for many years and frequently lectures in University College Cork, and is a Director of Northstar Training and Advisory.

### Further information (Contact Details):

#### Vicky Snook

Training and Learning Manager (foodlineUCC)  
Programme Manager  
Food Industry Training Unit  
School of Food and Nutritional Sciences  
College of Science, Engineering and Food Science  
University College Cork

Tel: 021 4902799  
email: vicky.snook@ucc.ie  
web: www.ucc.ie/en/fitu



# Food Process Engineering Principles

## Introduction

A working knowledge of engineering principles is invaluable in the design and optimization of food processes, yet this topic is increasingly now receiving less attention on food science degree programmes. The engineering principles covered in the programme, in topics such as fluid characteristics, concentration processes and powder handling, can be applied to troubleshoot a broad range of commercial food products and ingredients. You will find this intimate and encouraging learning environment an ideal forum for updating or refreshing your knowledge and networking with experts from both industry and academia.

### Programme Content:

This one-day course allows participants to benefit from knowledge exchange with leading academic and industry practitioners gaining perspectives from operations in the UK and overseas. Topics covered in the course are:

- Introduction, engineering units and mass balances
- The physics of process fluids
- Rheological analysis of food
- Principles of heat transfer
- Thermal process analysis
- Evaporation, membrane and drying technology
- Powder flow and dissolution science
- Food engineering tools of the future

### Who should attend:

Those responsible for designing, optimising and managing the processing of food products that are safe, high quality and innovative. This includes: Technical, quality and marketing managers, Production staff and plant operators, Quality assurance personnel, Product developers and R&D personnel, Food retailers, Those wishing to interact with experts in their field

### Lead Trainers

**Dr Mike Lewis** is the lead workshop trainer. He taught at Reading University for almost 40 years and now runs workshops in different parts of the world for a variety of companies. His recent research and other publications can be found on [www.dairy-solutions.com](http://www.dairy-solutions.com)

**Dr Shane Crowley** is a lecturer in Food Processing at University College Cork. Shane's research and teaching interests include the development of purified protein and mineral ingredients, membrane-based separation processes, colloidal aspects of food proteins, dissolution science, the flowability of food powders, formulation science for tailored nutritional products and novel applications of processing technologies such as charged membranes and hydroclones.

**Dr Seamus O'Mahony** is a Lecturer in Food Science at University College Cork and leads the Food Ingredients Research Group within the School of Food and Nutritional Sciences. The research interests of the group are focused on four main platforms: (1) ingredient development and functionality, (2) powder technology and engineering, (3) formulation science and technology and (4) bio-functional food ingredients. He has published over 130 peer-reviewed scientific papers, 15 book chapters and edited or co-authored 3 books over the last 10 years and has secured >€7m in competitively won research funding since joining UCC. Dr O'Mahony holds an MA in Teaching and Learning in Higher Education and works closely with the UCC Food Industry Training Unit in developing and delivering research-led training courses.

### Further information (Contact Details):

#### Vicky Snook

Training and Learning Manager (foodlineUCC)  
Programme Manager  
Food Industry Training Unit  
School of Food and Nutritional Sciences  
College of Science,  
Engineering and Food Science  
University College Cork

Tel: 021 4902799  
email: vicky.snook@ucc.ie  
web: www.ucc.ie/en/fitu



# Future Agri-Leaders

## Introduction

The Future Agri Leaders programme is a comprehensive four-day initiative designed to enhance the skills and capabilities of current and emerging leaders within the Irish food industry.

### Programme Content:

The main goal of the Future Agri Leaders programme is to foster the development and growth of both current and aspiring leaders within the Irish Agrifood industry. By providing specialised training in key areas, the programme seeks to equip participants with the knowledge and skills necessary to drive innovation, efficiency, and sustainability in the sector.

#### Project Management:

- Understanding the fundamentals of managing agrifood projects effectively.
- Tools and techniques for successful project planning and execution.

#### Finance for Non-Financial Managers:

- Basic financial principles tailored for those without a financial background.
- Key financial metrics and how to interpret them to make informed business decisions.

#### Communication:

- Strategies for effective communication within the industry.
- Techniques for clear and persuasive communication with various stakeholders.

#### Leadership:

- Core leadership skills necessary for driving team and organisational success.
- Developing a personal leadership style that aligns with the industry's needs.

#### Personal Development:

- Focus on self-awareness and continuous improvement.
- Building resilience and adaptability in a dynamic industry environment.



#### Who should attend:

The Future Agri Leaders Programme is ideal for: Current Leaders in the Irish food industry seeking to enhance their skills. Aspiring Leaders aiming for leadership roles. Project Managers looking to refine their project management abilities. Professionals Focused on Personal Development and resilience in the agricultural sector. Active or planned involvement in the Irish Agrifood industry. Interest or experience in leadership, project management, finance, communication, or personal development. Commitment to full participation in the four-day programme.

#### Further information (Contact Details):

##### Clair Hoare

Programme Manager  
Food Industry Training Unit  
School of Food and Nutritional Sciences  
College of Science, Engineering and Food Science  
University College Cork

Tel: 089 2466996  
email: clairhoare@ucc.ie  
web: www.ucc.ie/en/fitu

# Ice Cream Science and Technology

## Introduction

This international intensive three-day course will provide participants with knowledge of the science and technology of ice cream, including ingredients, processing and quality aspects. Lectures will be complemented with demonstrations and there will be ample opportunity for personal contact with the trainer and industry colleagues. This course, similar to that delivered at the University of Guelph, Canada, is very popular with participants from around the world and places fill very quickly.

### Programme Content:

The course is run over three days and lecture topics include:

- Frozen dessert formulations and mix composition
- Mix ingredients
  - Milk products: fat and milk solids not-fat; non-dairy fats and proteins
  - Sugars, stabilisers and emulsifiers
- Mix formulation calculations
- Mix processing
- The freezing process
  - Physical chemistry of freezing
  - Ice cream structure and quality
  - Frozen dessert processing equipment
  - Novelty product processing equipment
  - Overrun calculations
- Flavouring ingredients
  - Vanilla and chocolate
  - Fruits, nuts and inclusions
- Product grading and defects
- Dairy microbiology and food safety
  - Plant sanitation
  - Post-pasteurization contamination
  - Quality assurance



#### Who should attend:

Ice cream processors, Quality assurance personnel, R&D personnel, Ice cream retailers, Suppliers to the ice cream industry, Entrepreneurs

### The Lead Trainer

**Professor Douglas Goff is a Professor in the Department of Food Science, University of Guelph, Canada.**

He is well known in Canada and internationally for his research work in ice cream science and technology and has published and presented numerous book chapters and over 150 scientific and technical papers in this area to both scientists and to dairy personnel. He is the co-author of the text "Ice Cream, 7th Edition" (2013), with Professor Richard Hartel of the University of Wisconsin. At the University of Guelph, Professor Goff has taught an ice cream technology course for industry personnel for 35 years. He has been a guest speaker at numerous courses and symposia, speaking on aspects of ice cream science and technology. He was the recipient of the 2017 Food Hydrocolloids Trust Medal, the 2004 Ontario Agricultural College Distinguished Faculty Teaching Award, the 2000 Kraft Foods Teaching Award from the American Dairy Science Association and the 1997 Ontario Agricultural College Distinguished Extension Award for his work with the Canadian ice cream industry. He teaches undergraduate and graduate courses in introductory food and nutritional sciences, dairy science and technology, food colloids and food carbohydrates.

#### Further information (Contact Details):

##### Vicky Snook

Training and Learning Manager (foodlineUCC)  
Programme Manager  
Food Industry Training Unit  
School of Food and Nutritional Sciences  
College of Science, Engineering and Food Science  
University College Cork

Tel: 021 4902799  
email: vicky.snook@ucc.ie  
web: www.ucc.ie/en/fitu



# Introduction to Food Chemistry

## Introduction

The Introduction to Food Chemistry is designed to offer learners the opportunity to develop a basic understanding of key chemistry principles of importance to food systems.

Successful completion of this digital badge may be considered as part of a person's recognition of prior learning in applying for our Postgraduate Certificate, Diploma and MSc in Dairy Technology and Innovation. This Digital Badge is designed to bridge the gap and facilitate access to full programmes for interested learners and offer a pathway into our full programmes.

The programme is delivered online, using an 'on demand' model where learners access materials asynchronously. Individual sections are released to learners on completion of successful previous sections, including an MCQ self-knowledge check at each stage. At the end of the course, students will need to complete a take-home assignment, which consists of 7 short questions.

### Programme Content:

The topics covered in this course will include the following:

- Chemistry Aspect
- Basics
- Reactions
- Acids and bases, pH, buffering capacity.
- Normality, Molality, Molarity
- Functional groups and bonds
- Principles of food chemistry macromolecules
- Protein chemistry
- Lipid chemistry
- Carbohydrate chemistry

### Who should attend:

Learners who wish to study technical food science programmes on a part- time basis, who do not have the necessary food chemistry background to engage effectively with the materials.



### Leader Trainers

**Dr Thomas France**, PhD in Food Science and Technology

**Dr Éadaoin Casey**, PhD in Chemistry

### Academic Director

Professor Paul McSweeney, School of Food and Nutritional Sciences, College of Science, Engineering and Food Science, UCC.

### Further information (Contact Details):

#### Dr Nadia Grasso

Programme Manager  
Food Industry Training Unit  
School of Food and Nutritional Sciences  
College of Science, Engineering and Food Science  
University College Cork

Tel: 021 4903114  
email: ngrasso@ucc.ie  
web: www.ucc.ie/en/fitu

# Introduction to the Manufacture and Science of Chocolate

## Introduction

Dive into the delectable world of chocolate with our "Introduction to Science & Manufacture of Chocolate" course. This programme is designed for chocolate enthusiasts, aspiring chocolatiers, and professionals in the culinary and food science industries. Explore the fascinating journey of chocolate from bean to bar, understanding the intricate science behind its creation and the sophisticated techniques used in its manufacture.

### Programme Content:

This is a fundamental course covering the topics

- Cacao Cultivation and Harvesting: Learn about the cultivation of cacao trees, the process of harvesting cacao beans, and their global economic significance.
- The Science of Chocolate: Delve into the chemistry of chocolate, including the properties of cacao beans, the fermentation process, and the role of temperature and crystallization in chocolate making.
- Manufacturing Techniques: Gain hands-on experience in the essential techniques of chocolate production, including tempering and moulding.
- Sensory analysis of various types of chocolate including evaluating appearance, smell, taste, texture and sound: this analysis helps determine the quality and unique characteristics of different chocolates.
- Quality Control and Food Safety: Discover the standards and practices for ensuring high-quality and safe chocolate products and how to avoid chocolate defects such as fat and sugar bloom

### Who should attend:

Chocolate enthusiasts eager to deepen their knowledge, Aspiring chocolatiers and confectionery artisans, Culinary professionals and food scientists. Anyone with a passion for the science and craft of chocolate

### Manufacturing Techniques:

Gain hands-on experience in the essential techniques of chocolate production, including tempering and moulding. Sensory analysis of various types of chocolate including evaluating appearance, smell, taste, texture and sound: this analysis helps determine the quality and unique characteristics of different chocolates.

### Quality Control and Food Safety:

Discover the standards and practices for ensuring high-quality and safe chocolate products and how to avoid chocolate defects such as fat and sugar bloom

### Course Format

This course combines theoretical lectures, interactive workshops, and practical lab sessions to provide a well-rounded understanding of the chocolate-making process. Participants will have the opportunity to work with industry experts and gain hands-on practical experience.

### Lead Trainers:

**Eddie O'Neill** recently retired from Teagasc, where he served as an Artisan Food Specialist and Food & Packaging Technologist. He developed award-winning fresh and fermented products, such as cheese, yogurt, and frozen desserts, and led the Foodworks accelerator programme for HPSU food companies. He has travelled extensively for his work and served as a senior judge at the Irish Farmhouse Cheese Awards. Additionally, he collaborated with Safefood on training courses and food safety issues. Currently, he is involved with the BIA Innovator campus in Athenry.

**Dr James Richardson** is a lecturer in Plant Science, in the School of Biological Earth and Environmental Science and Environmental Research Institute, University College Cork; he is also Research Associate Royal Botanic Garden Edinburgh; Research Associate, Universidad del Rosario, Bogotá. CacaoWiRe Lead - systematics, taxonomy, evolution, biogeography of cacao wild relatives.

### Further information (Contact Details):

#### Clair Hoare

Programme Manager  
Food Industry Training Unit  
School of Food & Nutritional Science  
University College Cork

T: 089 246 6996  
E: clairhoare@ucc.ie





# Lean Training - Yellow Belt

## Introduction

This course is available as an in-company offering – or in UCC if there is sufficient interest.

The workshop is delivered in an online format. The content will be covered in four sessions, each of which is three hours long. There will be a short break half-way through each session. The video tool used will be Zoom, and we will have a short practice session before the training to make sure that each attendee can use the tool effectively to connect and participate. The training will feature practical exercises and interactive discussion to ensure later ability to apply what is learned.

### Programme Content:

The workshop will include the following:

1. Introduction to Lean and the Core Principles
2. Tackling the challenge of change
3. Learning 7 widely used diagnostic tools
4. Understanding use and application of Standard work, Visual management, Cells, TPM, Poka-Yoke and Visual management
5. Learn the tools of 5S, Kanban, Quick Changeover and the use of Value Stream Mapping
6. How to approach improvement using Kaizen, and use of PDCA and DMAIC
7. Practical implementation approaches
8. Development of an improvement roadmap for use after the workshop

### Benefits of Attending

- Learn the fundamental thinking and practices associated with using lean in a food and drink manufacturing context to drive improvements
- Develop proficiency from this highly practical workshop – so you have confidence in applying what you learn when you get back to work
- Get a Lean Yellow Belt Certificate awarded by the Food Industry Training Unit in UCC

### Who should attend:

This workshop is suitable for subject matter experts, team leaders, supervisors and managers who need to get a solid practical introduction to Lean Continuous Improvement in a food and drink production environment.

### Lead Trainer

Joe O’Callaghan will deliver the workshop. He is a Programme Director in the Food Industry Training Unit in UCC. He is an experienced Lean consultant and trainer with many years of working with a range of industries including the food and agri-food sectors. He is a highly rated trainer in both face to face and online Lean training. The delivery format will include videos, case studies, role plays and interactive exercises that will be relevant for people in the food and drink sectors.

### Further information (Contact Details):

#### Vicky Snook

Training and Learning Manager (foodlineUCC)  
Programme Manager  
Food Industry Training Unit  
School of Food and Nutritional Sciences  
College of Science,  
Engineering and Food Science  
University College Cork

Tel: 021 4902799  
email: vicky.snook@ucc.ie

# Lean Training - Green Belt

## Introduction

This 6-day course gives a solid grounding in the theory and practice of Lean. The content is designed to provide a solid understanding of the thinking and practice of Lean in Food and Drink companies. A Lean Green Belt certificate will be awarded after passing an end-of-course examination and completing an improvement project that showcases what you have learned and applied.

### Programme Content:

#### Day 1

- Introduce Lean Supply Chain Management thinking.
- Explain the idea of an organisation as a system, with inputs, processes that work on those inputs and outputs.
- Introduce Likers 4P model, an easy way to understand Lean Thinking
- Introduce the 5 Lean Principles and the 8 wastes

#### Day 2

- Introduce the need for engagement of staff and dealing with change
- Explaining the role of Lean leaders.
- Explain each of the seven quality tools and practice use
- Introduce the useful other diagnostic tools

#### Day 3

- Introduce the concept of Cellular Operations, Poka-Yoke and TPM
- Introduce standard work and visual management
- Introduce a layout improvement method called 5S
- Cover Kanban, JIT, flow in practice and SMED

#### Day 4

- Explain how VSM is used and practice VSM in a process you know.

#### Day 5

- Embedding the practice of continuous improvement – Kaizen.
- Cover JDI, PDCA and DMAIC – and how A3s are used
- Briefly introduce the methodology that is six sigma
- Introduce and explain lean as a ‘journey’.
- Develop your own Lean roadmap.

#### Day 6

Revision of the whole course – useful for people who may have missed some of the previous days, some exam practice and finally doing the end-of-course examination.

### Who should attend:

Managers, supervisors and team leaders in all functional areas within food and drink companies. Attendees need to have an interest in learning how to tackle improvement opportunities in manufacturing, new product development and management processes

### Lead Trainer:

**Joe O’Callaghan**, B.E., M.B.A facilitates the workshop. Joe is an experienced Lean Consultant. He has provided training for a variety of organisations delivering training for more than 15 years and has delivered Lean training to a wide range of manufacturing and service organisations during that time. Evaluations of his Lean training workshops are consistently rated as excellent by attendees.

### Further information (Contact Details):

#### Vicky Snook

Training and Learning Manager (foodlineUCC)  
Programme Manager  
Food Industry Training Unit  
School of Food and Nutritional Sciences  
College of Science,  
Engineering and Food Science  
University College Cork

Tel: 021 4902799  
email: vicky.snook@ucc.ie



# Production Supervisory Programme

## Introduction

This programme is a UCC/ICOS Skillnet Supervisory Programme specifically designed for those working in the Co-operative Dairy Sector. The key aim of the programme is to improve the capabilities of production supervisors and those wishing to enter production supervisory roles. Participants will build on existing skills and develop new management capabilities in a highly interactive learning environment. This course has a digital badge award upon successful completion.

**Programme Content:**

- Communications and Performance Management
- Conflict Management
- Dairy Science and Technology
- Composition and Microbiology of Milk

**Who should attend:**

The programme is directed at supervisors and aspiring supervisors, from the Co-operative Sector, who wish to develop their skills further. Suitable candidates from other related disciplines who wish to develop their skills in these sectors will also be considered.

**Lead Trainers:**

- Professor Alan Kelly
- Dr Seamus O'Mahony
- Dr Tom O'Callaghan
- David Waldron
- Joe O'Callaghan
- Kathy Kirwan

**Further information (Contact Details):**

**Vicky Snook**

Training and Learning Manager (foodlineUCC)  
Programme Manager  
Food Industry Training Unit  
School of Food and Nutritional Sciences  
College of Science, Engineering and Food Science  
University College Cork

Tel: 021 4902799  
email: vicky.snook@ucc.ie  
web: www.ucc.ie/en/fitu



# Rejuvenate

## Introduction

Significant numbers of highly educated, experienced, professional women take a career break for a variety of reasons, planning to return to the workforce when the time is right.

However, women 'returners' face significant obstacles when they decide to return to paid employment. Employers can be reluctant to employ people without current work experience and many women don't make it past the CV screening process.

University College Cork, in conjunction with Taste4Success Skillnet, recognised the value of encouraging professional women to return to their careers and developed an innovative programme called Rejuvenate to support them in their quest. Developed by Dr Joanne Uí Chruaí and Caroline Seacy MMkt, we have run six Rejuvenate programmes since 2019 and have been highly successful in helping women return to paid employment.



**Programme Content:**

1. Self-assessment and Training Needs Analysis, Professional Motivation
2. Strategies to build Confidence, Resilience and Assertiveness
3. Professional Network Development
4. Mentoring and Active Career Management
5. Key job searching skills - CVs, Cover Letters, Interview Preparation
6. Digital Skills - LinkedIn, Social Media Management and Zoom
7. Working in a Team and Balancing Work and Life
8. Project that will be assessed

**Why Rejuvenate?**

Many women fear returning to the workplace, having taken time out for one of a myriad of reasons that life can throw at us. A loss of confidence, loss of flexibility and worries about relevance of skill-sets are often cited as common reasons for women to postpone or avoid seeking a return to paid work. Added to this, the feeling of "out-of-dateness" is a concern for many highly skilled women.

**Testimonials**

The inaugural Rejuvenate course was held in Cork in Autumn 2019. Rejuvenate has run online since then and feedback from all participants has been very positive.

*"I got my confidence back both in myself and in my ability to re-join the workforce. I would strongly advise anyone in the position to do the Rejuvenate course to grab the opportunity with both hands".*  
2019 Participant

*"The Rejuvenate programme has been a hugely positive experience in my life, the support and encouragement received has been invaluable. It has given me a new lease of life and the focus and determination to build a new career. Advice on CVs, interview skills and presentations has been fantastic".* 2019 Participant

*"A must for any woman who has stayed at home to mind their children, it is a journey of rediscovering your potential. An inspiring course".* 2019 Participant

*"For the first time in probably 10 years, I actually began to think of returning to the workforce because the course gave me the confidence to realise it was a possibility".*  
2020 Participant

**Revitalise:** Expanding our offering for workplace returners, Revitalise is an exciting new programme offering experienced people (aged 50+) the chance to 'revitalise' their careers by attending a series of targeted webinars.

**Further information (Contact Details):**

**Ingrid Seim**

Food Industry Training Unit

Tel: 021 4903000  
email: ingrid.seim@ucc.ie  
web: www.ucc.ie/en/fitu



# Sustainability in the Dairy Sector

## Introduction

This short course provide participants with knowledge on sustainability and food systems with a specific focus on the challenges the dairy sector is facing to deliver in the 2030 Agenda for Sustainable Development Module. It is a blended course consisting of online lectures and one full day of practical face-to-face content in University College Cork.

### Programme Content:

Food systems, food supply chain and food value chain; definition of sustainability; sustainable diets and the link to the dairy industry; The from 'Farm to Fork; approach with a focus on dairy products; Strategies to achieve sustainability in the dairy sector; Evaluation of sustainability: Life Cycle Assessment.

### Who should attend:

Those working in the food, agrifood, seafood or related sectors who are sustainability officers, project leads, product developers, managers and company owners.

### Lead Trainers:

#### Dr Aylin Sahin

Aylin is a lecturer in Sustainable Food Systems in the School of Food and Nutritional Sciences in University College Cork. She graduated with an MSc in Bioprocess engineering from Technical University Munich (TUM) and completed her PhD at the School of Food and Nutritional Sciences at University College Cork under the supervision of Prof. Elke Arendt. Aylin also worked as a postdoctoral researcher in the Cereal and Beverage Science Research group in UCC, working on various nationally funded, EU-funded, and industry-funded projects.

### Further information (Contact Details):

#### Dr Amy-Jane Troy

Programme Manager  
Food Industry Training Unit  
School of Food and Nutritional Sciences  
College of Science, Engineering and Food Science  
University College Cork

Tel: 021 490 3178  
email: amyjane.troy@ucc.ie  
web: www.ucc.ie/en/fitu



# Sustainable success: Professional Skills for Thriving in the Agri-Food Sector

## Introduction

This short course focuses on developing professional skills essential to success in the modern agri-food sector, including expertise in effective communication, teamwork motivation, performance improvement and personal effectiveness. The course is blended in nature with a mix of face to face an online activities and includes four days of face-to-face or live teaching.

### Programme Content:

- Identify and use a range of tools to analyse and solve complex workplace problems
- Demonstrate enhanced self-awareness and apply this in real-work situations
- Analyse team dynamics and stages and create strategies to build effective teams
- Communicate effectively to a variety of audiences using a range of methods and channels
- Develop strategies to manage stress, improve focus and prioritisation and increase productivity

### Who should attend:

Those working in the food, agrifood, seafood or related sectors who are eager to develop personal and professional skills in the areas of problem solving, teamwork, performance and motivation.

### Lead Trainers:

#### Kathy Kirwan

Kathy works across a number of the FITU Diplomas and delivers Transversal Skills training across the food industry. She has facilitated courses with various key agents in the food and business industry sectors, working with production teams, undergraduate, post-doctoral students and industry management for many years. Her signature focus is on Team Development and People Management. Kathy delivers a hands-on approach to learning through the experiential focus of her workshop facilitation.

In the world of experiencing 'first hand' high impact team development and team roles, Kathy has completed 4 transatlantic sailing trips between the Caribbean to Cork, spending over a month at sea on each voyage. Researching teams and methods for developing high performing teams, conflict and effective communication is a key focus of her professional and personal journey.

Kathy has recently been awarded accreditation as a Belbin© Team Roles trainer and recently graduated from the Professional Diploma in Creativity, Innovation & Leadership, UCD.

Previous food industry clients include: Teagasc, EMC, Cork Institute of Technology, ICOS, Sea Fisheries Protection Authority, University College Cork, BIM & Dairygold.

### Jennifer Dowling

Jennifer is a chartered work and organisational psychologist and is Director of Train Remote Ltd. where she specialises in the delivery of Virtual Training, Workshop Delivery, Facilitation, Coaching and Team Development. Her background in Project Management, Consultancy, Coaching, Psychometrics and Leadership Training has allowed her to work with a wide variety of clients and organisations both Nationally and Internationally across a variety of sectors including; Pharma, Health, Finance, Education and Tech.

Jennifer has a strong research and training background in the area of remote, hybrid and flexible work and is an experienced trainer, coach and facilitator. She is both practitioner and trainer in a range of psychometric tools for both selection and development.

### Further information (Contact Details):

#### Dr Amy-Jane Troy

Programme Manager  
Food Industry Training Unit  
School of Food and Nutritional Sciences  
College of Science,  
Engineering and Food Science  
University College Cork

Tel: 021 490 3178  
email: amyjane.troy@ucc.ie  
web: www.ucc.ie/en/fitu





# The Science and Technology of Plant-based Ingredients for Food Applications

# Introduction

The aim of this course is to provide attendees with an understanding of the properties, functionality, and applications of plant-based ingredients. With a science-based learning approach, this course will provide participants with the skills and knowledge needed to exploit plant-based ingredients in food product development.

### Programme Content:

The topics covered in this course will include the following:

- Introduction to plant-based ingredients
- Consumer readiness and acceptance of novel food ingredients/market data on plant-based food
- Overview of carbohydrate ingredients from plants
- Overview of plant protein ingredients
- Overview of oils from plants
- Extraction methods and resulting ingredients/waste streams (flour, protein concentrates/isolates, starch, fibre, oil)
- Processing, modification approaches and pre-treatments – effect on antinutrients and functionality
- Application of plant-based ingredients in food formulation – dairy alternatives, eggs alternatives, meat alternatives, fish alternatives
- Nutritional aspects of plant protein and plant-based food

**Who should attend:**

Employees from the food industry, PhD students and anyone interested in gaining/ deepening their knowledge on plant-based ingredients

**Leader Trainers:**

**Professor Seamus O'Mahony**, School of Food and Nutritional Sciences, University College Cork.

**Professor Joe Kerry**, School of Food and Nutritional Sciences, University College Cork.

**Dr Aylin Sahin**, School of Food and Nutritional Sciences, University College Cork.

**Dr Thomas France**, product development specialist, Nestlé.

**Dr Nadia Grasso**, Programme Manager, Food Industry Training Unit, School of Food and Nutritional Sciences, University College Cork.

**Dr Mohammad Kamani (Mohsen)**, researcher, Teagasc Food Research Centre, Moorepark.

**Dr Laura Nyhan**, postdoctoral researcher, Cereal & Beverage Science Research Group, School of Food and Nutritional Sciences, University College Cork.

**Dr Sean Tanner**, Marketing and Consumer Behaviour Lecturer, Cork University Business School, University College Cork.

**Ursula Leonard**, final year PhD candidate, Cork Centre for Vitamin D and Nutrition Research, School of Food and Nutritional Sciences, University College Cork.

**Further information (Contact Details):**

**Dr Nadia Grasso**  
Programme Manager  
Food Industry Training Unit  
School of Food and Nutritional Sciences  
College of Science, Engineering and Food Science  
University College Cork

Tel: 021 4903114  
email: [ngrasso@ucc.ie](mailto:ngrasso@ucc.ie)  
web: [www.ucc.ie/en/fitu](http://www.ucc.ie/en/fitu)



## Thermal Processing

# Introduction

This two-day course covers a variety of topics necessary for those involved in formulating, developing, commercialising, manufacturing and troubleshooting any thermally-processed nutritional dairy-based beverages such as UHT milk, ESL milk, clinical or sports nutrition products, infant formula, enriched milks, flavoured milks, cream liqueurs and elderly nutrition products.

### Programme Content:

The two-day course will cover the following topics:

- Raw Milk Quality and Fitness for Heat Treatment
- Thermal Processes Overview
- UHT Processing Technologies
- UHT Plant Engineering and Process Conditions
- UHT Product Stability
- Changes in UHT Products during Storage
- Alternative / Non-Thermal Unit Processing Operations
- Nutrient Stability during Thermal Processing
- Pilot Plant and Laboratory Practical Sessions



In addition to covering the above topics, participants will also benefit from:

- Updates on the underpinning science for heat treatment of milk
- Enhanced understanding of the chemistry, microbiology, enzymology and physical processes taking place when dairy-based products are heated and stored
- Applied theoretical learning in a laboratory and pilot plant environment
- Exposure to latest developments in nutritional product formulation science & technology
- Assistance in obtaining more consistent quality and more reliable long-term storage
- Perspectives from UK and global UHT operations
- Knowledge-exchange with a leading academic and industry consultant
- Awareness of state of the art in accelerated physical stability testing approaches

**Who should attend:**

R&D, NPD, Operations, Technical, QA, QC personnel

**Lead Trainers:**

**Dr Mike Lewis** has over 38 years of experience as a Lecturer and Senior Lecturer at the University of Reading in the School of Chemistry, Food and Pharmacy, having graduated from Birmingham University with BSc, MSc (Biol. Sci.) and PhD degrees

in Chemical Engineering. During this time, Mike taught on various topics including physical properties of foods, food processing operations, milk and milk processing, heat treatment, evaporation, drying and membranes.

**Dr Seamus O'Mahony** is a Lecturer in Food Science at University College Cork and leads the Food Ingredients Research Group within the School of Food and Nutritional Sciences. The research interests of the group are focused on four main platforms: (1) ingredient development and functionality, (2) powder technology and engineering, (3) formulation science and technology and (4) bio-functional food ingredients. He has published over 130 peer-reviewed scientific papers, 15 book chapters and edited or co-authored 3 books over the last 10 years and has secured >€7m in competitively won research funding since joining UCC. Dr O'Mahony holds an MA in Teaching and Learning in Higher Education and works closely with the UCC Food Industry Training Unit in developing and delivering research-led training courses.

**Professor Alan Kelly** is a Professor in the School of Food and Nutritional Sciences at University College Cork, Ireland. His research concerns the chemistry and processing of milk and dairy products and he has published over 200 research papers, review articles and book chapters.

**David Waldron** is a Chief Technical Officer in the School of Food and Nutritional Sciences, UCC, with responsibility for the practical education of students in dairy science and technology since 1998. He is also involved in postgraduate and industry-focused research. Over the past decade, David has developed and delivered industry training courses and workshops for Irish and international industry.

**Further information (Contact Details):**

**Vicky Snook**  
Training and Learning Manager (foodlineUCC)  
Programme Manager  
Food Industry Training Unit  
School of Food and Nutritional Sciences  
College of Science, Engineering and Food Science  
University College Cork

Tel: 021 4902799  
email: [vicky.snook@ucc.ie](mailto:vicky.snook@ucc.ie)  
web: [www.ucc.ie/en/fitu](http://www.ucc.ie/en/fitu)



# Bespoke / Customised Training Courses



# Bespoke / Customised Training Courses

## Introduction

Training events that enable participants to improve and broaden their knowledge and skills required in their professional lives. All aspects are defined by you in consultation with the Food Industry Training Unit, UCC. This includes the choice of subjects, duration, location and the target group.

### Programme Content:

Courses can be constructed by offering existing modules or a totally new topic can be developed.

Examples of specific topics include:

- Dairy Science and Technology
- Foundation Skills in Management
- Microbiology
- Lean
- Leadership and Management

### Who should attend:

Tailor-made training can be organised for different sized groups of personnel at different levels in industry, government organisations, state agencies etc.

### Further information (Contact Details):

**Dr Amy-Jane Troy**  
Manager  
Food Industry Training Unit  
School of Food and Nutritional Sciences  
College of Science, Engineering and Food Science  
University College Cork

Tel: 021 4903178  
email: [amyjane.troy@ucc.ie](mailto:amyjane.troy@ucc.ie)  
web: [www.ucc.ie/en/fitu](http://www.ucc.ie/en/fitu)





## Testimonials from Industry Course Attendees

“As a mature student that was entering a new learning environment I was immediately made at ease and welcomed into the course. The learning outcomes and usefulness of the course were very well explained, all the course participants were made to feel welcome, no matter the level of experience or reasons for applying to undertake the course” **2023/2024 - Course Participant**

**Diploma in Speciality  
and Artisan Food  
Enterprises**

**Certificate in  
Food Science and  
Technology**

“What a journey I’ve had on this course, the friends I’ve made, the knowledge I’ve acquired and the confidence I’ve gained, I will have fond memories of this course for the rest of my life. The course itself is one I cannot speak highly enough about, not just the knowledge each workshop will give you, but how it’s structured.” **2022/2023 - Course Participant**

“This programme has given me a clear understanding of my role and associated responsibilities. I’ve gained confidence around my abilities, and I have learned how to challenge a management team in a clear and fair manner, while at the same time doing what’s best for our co-operative. It’s given me an ambition to lead my co-op and do my best for the wider agricultural industry through the co-op movement, and future proof the industry in a positive light going forward.” **2023/2024 Course Participant**

**Diploma in  
Corporate Direction  
(Food Business)**

**Diploma in  
Food Science  
and Technology**

“This course is very valuable to me personally as it has expanded my workplace knowledge, and my career has already progressed from the course.” **2023/2024 Course Participant**

“Excellent content, relatable and thought provoking. I certainly view my own management/leadership style differently after the course.” **2024 - Course Participant**

**Bespoke Training  
- Leadership and  
Management**

**Diploma in Food  
Manufacturing  
Management**

“What a journey I’ve had on this course, the friends I’ve made, the knowledge I’ve acquired and the confidence I’ve gained, I will have fond memories of this course for the rest of my life. The course itself is one I cannot speak highly enough about, not just the knowledge each workshop will give you, but how it’s structured.” **2022/2023 - Course Participant**

## Testimonials from Industry Course Attendees

**Diploma in  
Corporate Direction  
(Food Business)**

“As a board member of my local cooperative for a number of years, to participate in the Diploma in Corporate Direction gave me a confidence and self-belief that I lacked in the boardroom. Every module in the Diploma, while all different, brought together the strategies that are needed in today’s world to develop and run successful Co-operatives and food businesses. I have met board members from other co-operatives and this also brings a very important social dynamic to the course itself, as well as making lifelong friends.” **2022/2023 Course Participant**

“The training gave me more understanding, which will improve my problem-solving ability.’ ‘I’m looking forward to applying what I learned about cheese chemistry to our own process.’ ‘The knowledge gained should help give an insight to possible problems in the future.” **2023 Short Course Participant**

**Cheese Science  
and Technology  
Training Course**

**The Science and  
Manufacture of  
Cheddar and Mozerella  
Training Course**

“Can bring back the scientific knowledge to my role to potentially troubleshoot issues with much greater knowledge than before.” **2024 Short Course Participant**

“Testimonial text changes to: “Thought provoking session. It opened up conversations cross departmentally on internal views on our current NPD process. A great platform to hear others opinions on our NPD innovation pipeline and ways we could improve/ remove blockers.” **2024 Course Participant**

**Bespoke Training  
- Driving Leadership  
through Innovation**

**Concentration  
and  
Drying Training Course**

“All of the training was very useful. I should have completed the course years ago” As a result of this training “I have better knowledge of the processing side of things”. **2024 - Course Participant**

“Overall, really learned a lot as a newcomer into the CIP area. It was nice that the course was very engaging and open for questions throughout.” **2024 - Course Participant**

**Cleaning in Place  
for the Food and  
Drinks Industry  
Training Course**









FOOD INDUSTRY TRAINING UNIT



Food Industry Training Unit  
School of Food and Nutritional Sciences  
College of Science, Engineering and Food Science  
University College Cork  
Ireland

[www.ucc.ie/en/fitu](http://www.ucc.ie/en/fitu)

[f https://www.facebook.com/foodindustrytrainingunit.ucc/](https://www.facebook.com/foodindustrytrainingunit.ucc/)

[t https://twitter.com/UCCFoodTraining](https://twitter.com/UCCFoodTraining)

[in https://www.linkedin.com/company/food-industry-training-unit-ucc/](https://www.linkedin.com/company/food-industry-training-unit-ucc/)

