

Food Industry Training Unit



FOOD INDUSTRY TRAINING UNIT

Serving the Irish Food Industry for 30 years




School of Food and Nutritional Sciences



MISSION STATEMENT

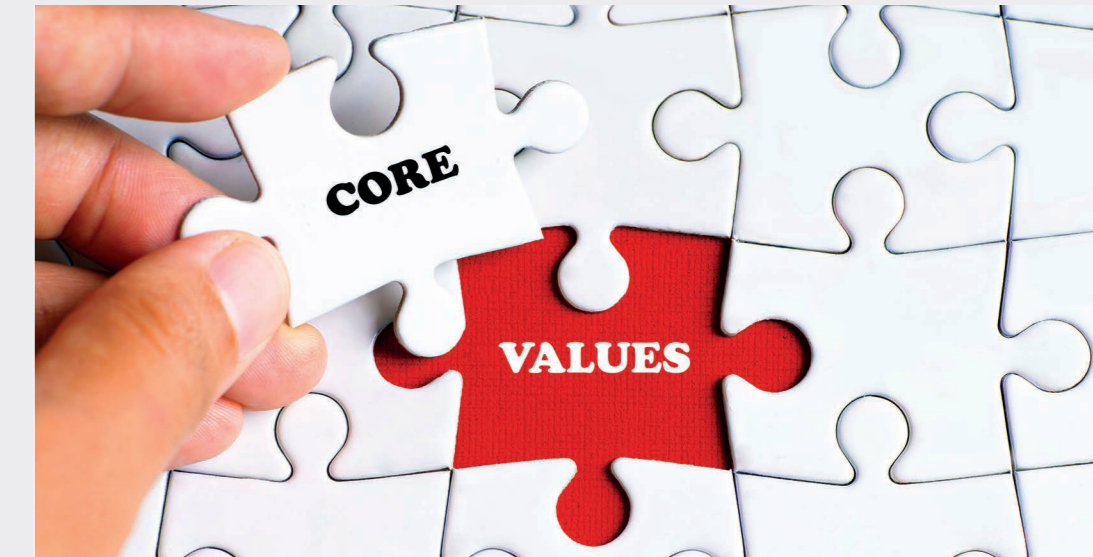
“To be the leading provider of relevant, part-time education, training and sustainable continuing professional development for personnel in the food, agri-food and seafood sectors. This is achieved by developing and delivering high quality training and development, thus strengthening internal capability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

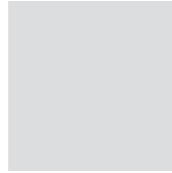
Our Values

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.

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

- Excellence
- Partnership
- Innovation
- Inclusion
- Passion
- Empowerment





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. This year the unit celebrates 30 years of excellence in the development, accreditation (where applicable) and delivery of part-time education and training for Ireland's largest indigenous industry sector.

At the core of our ethos is our ambition to support the agri-food sector, nationally and internationally, through excellence in training and development. Our programmes have been recognised with National Awards for Training and Development and are included in National Policy.

As our Global Food System faces unprecedented challenges, we aim to equip our industry colleagues with the best-in-class skills and competencies to meet current and future challenges and support human capital excellence throughout the sector.

FITU works in partnership with Industry, State Agencies, and academic colleagues in the School of Food and Nutritional Sciences, College of Science, Engineering and Food Science and Cork University Business School as well as a range of industry based experts. We deliver courses that meet stakeholder needs, are informed by the latest research developments and adhere to the highest educational standards. Learners are supported with individual attention from our management team, access to UCCs learning infrastructures, and, where appropriate, work-integrated learning delivering maximum impact to both learner and their organisation.

Our 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. Indeed we have recently introduced stackable qualifications to our suite where industry professionals can start with a short course and progress right through to a Masters.

We are very proud to celebrate our 30-year milestone in 2023, the European Year of Skills, and are ambitious to continue innovating in agri-food and continuing professional development to deliver the skills our sector needs.

With best wishes,

Joanne Uí Chrualaoich, BA BSc FCIPD MA PhD
Manager

Food Industry Training Unit
School of Food and Nutritional Sciences
College of Science, Engineering and Food Science
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Introduction

foodlineUCC is an exciting online initiative that 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/>

For further information please contact Dr Amy-Jane Troy, Project Director, foodlineUCC email amyjane.troy@ucc.ie or Dr Joanne Uí Chruailaich, Manager, Food Industry Training Unit, UCC email j.uichruailaich@ucc.ie



The Sustainable Development Goals (SDGs), also known as the Global Goals which define the future world we want, were adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet, and aspire towards peace and prosperity for all (this will also include nature) by 2030.



The 17 Sustainable Development Goals are the 2030 Agenda, the map of the world we seek. They are integrated and recognise that action in one area will affect outcomes in others, and that development must balance social, economic and environmental sustainability. They apply to all nations and mean, quite simply, to ensure that no one is left behind.

But in a world where billions of people can communicate as they wish, many more groups and individuals demand, and have, a say in creating the future: business big and small, civil society, academics and scientists, to name just some.

The Sustainable Development Goals are the blueprint to achieve a better and more sustainable future for all. Countries have committed to prioritise progress for those who are furthest behind. The creativity, know-how, technology and financial resources from all of society is necessary to achieve the SDGs in every context.

The Food Industry Training Unit is aligned with the 2030 Goals of the United Nations, thus adopting a language that is universally understood.

Testimonials from Industry Course Attendees

"My promotion wouldn't have happened without the course. It gave me great courage to take on new challenges that may arise in the future. The best course I have ever done. Great learning. Networking was great. Friends for life."

Diploma in Food Manufacturing Management

Diploma in Food Science and Technology

"I really found this course rewarding. A very healthy blend of scientific and technological information you can take back to the workplace and use to influence the organisation. From a personal capacity it really enhanced my level of confidence to deliver my day-to-day responsibilities."

"The diploma offered a great opportunity to participate in a third level qualification. The diploma should be compulsory for new board members as it offers great value and insight into the functioning of co-operatives and business in general."

Diploma in Corporate Direction (Food Business)

Diploma in Speciality Food Production

"The diploma really widened my knowledge about all things food-related. We learned to be realistic about the process of developing a product. The assignment brought everything together into a very personal business perspective."

"Personally, I have a much better understanding of the chemistry and microbiology of milk, which is very important in my role as a process engineer. I am also more aware of the various dairy processes and processing technologies used throughout industry and how some of the processes used by our company can be improved upon".
"As a full time Nestle employee with a family of 5 the combination of online and face to face blended learning format has worked very well and I can highly recommend it"

Postgraduate Certificate in Dairy Technology and Innovation

Diploma in Leadership for the Agri-Food Sector

"The Diploma in Leadership course is a fantastic opportunity to gain some formal education behind the aspects of management and leadership that are so integral to career development in the food industry. A great insight into all aspects of leadership and management from the importance of communication, project management, time management and financial information."

"The opportunity of a PG Diploma and MSc in Dairy Technology and Innovation provides me with further career advancement opportunities within my organisation especially with the prospect of completing a substantial project that would be very beneficial to both me and the company"

PG Diploma in Dairy Technology and Innovation

The Food Industry Training Unit



500+ PEOPLE RECEIVING PART-TIME TRAINING EVERY YEAR



SERVING THE FOOD INDUSTRY SINCE 1993



OVER 20 PART-TIME DIPLOMAS, CERTIFICATES AND SHORT COURSES

BLENDED AND ONLINE COURSES

BLENDED AND ONLINE COURSES DEVELOPED SPECIFICALLY FOR THE FOOD, AGRI-FOOD AND SEAFOOD SECTORS



Food Vision 2030 recognises talent development as one of the key drivers of Irish agri-food sector.

EC has designated 2023 the year of skills with ambition that 60% of adults get involved in learning.



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 Diploma that are at level 7 and level 9 on the National Qualifications Framework. These courses run part-time over one or two years.

Many of the FITU shorter courses have a digital badge or microcredential award.

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 Food Production
- Diploma in Food Manufacturing Management
- Diploma in Leadership for the Agri-Food Sector
- 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

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
- Concentration and Drying
- Lean Yellow Belt for the Food, Agri-Food and Seafood Sector

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

The FITU Team

Manager

Dr Joanne Uí Chrualaoich

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Dr Joanne Uí Chrualaoich (pronounced ee-crew-a-lake) Joanne has recently taken up the role of Manager of the Food Industry Training Unit. Joanne's passion is in people development and supporting success amongst educators, professionals and the food industry though talent.

Joanne specialises in Training and Development in higher education and has devoted the last 15 years to supporting Human Capital development for early career professionals. This was recently recognised with the award of Chartered Fellow of the Chartered Institute of Personal Development. She has contributed to national policy on Equality, Diversity and Inclusion and her programmes have won training and development awards at the national level.

Joanne has a particular interest in learning and teaching excellence, including developing learning outcomes, assessment methods, course design, accreditation and eLearning components based on competency models. A common theme in Joanne's work is moving professionals beyond their core subject matter expertise to recognise the depth and breadth of their expertise so that this can be applied in a range of applied areas.

Joanne is the Programme manager for the Diploma in Corporate Direction and the Diploma in Leadership for the Agri-Food Sector.

Project Director foodlineUCC & Programme Manager

Dr Amy-Jane Troy

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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

Maura Conway

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Maura has managed the Diploma in Food Science and Technology in the Food Industry Training Unit since 1993 and has also been involved in the development and management of Certificate and Diploma programmes in Meat Technology and Seafood Technology. Prior to joining FITU Maura held positions in research and development with the Leatherhead Food Research Association and Kerry Group.

The FITU Team

Programme Manager
Dr Angela Sheehan

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Angela joined FITU as a Programme Manager in September 2008. She holds a B.Sc. (Dairying), M.Sc. (Nutrition) from UCC, and also has a PhD (Teagasc Walsh Fellowship). She currently manages the Diploma in Speciality Food Production in UCC and a number of other courses & workshops provided by FITU. She worked for 10+ years in the Food Industry with Kerry Group and Northern Foods in Ireland and with Nestle Canada, in the areas of Product and Process Development, Technical Project Management and Quality Management.

Programme Manager
Caroline Seacy

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Caroline has managed and developed our Taste4Success Skillnet funded Rejuvenate Programme since 2019 and is passionate about supporting talented women return to the workforce.

A social science and business graduate, Caroline has extensive strategic marketing, communications and brand development expertise, gained internationally in senior level roles, including as a Marketing Director with Fidelity Investments in the UK.

Caroline began working in UCC in 2017, delivering food related marketing, event management, outreach and CPD programmes. In August 2022, Caroline joined UCC's College of Medicine and Health as their Marketing and Events Manager.

Programme Manager
Joe O'Callaghan

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Joe received a first-class honours degree in Electrical Engineering in UCC. He started his career in manufacturing. In an industry career lasting 23 years he moved onto various product development and technical leadership roles in a range of multinational companies. During that time, he completed his MBA study with the Open University. He has been a consultant for more than 16 years, helping a range of organisations in Ireland, and internationally to improve their manufacturing, service and innovation performance.

He has lectured on the topic on lean, six sigma, communications, performance improvement and innovation across many companies in Ireland and selected clients internationally.

He has worked with UCC as Programme Manager for the Diploma in Food Manufacturing Management since February 2016. In addition to this work with the Food Industry Training Unit (FITU), Joe also delivers FITU courses on Lean Yellow Belt, Lean Green Belt, as well as workshops on Performance Management and Communications Skills. He has a Lean Black Belt and also runs his own management consultancy company.

The FITU Team

Programme Manager
Aoife Sammon

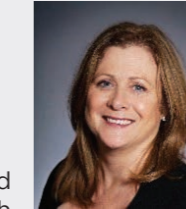
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Aoife joined FITU as a Programme Manager in March 2022. She currently manages the Diploma in Food Manufacturing Management programme. Aoife is a graduate of UCC, having both a BComm degree and a Masters in Food Marketing. Prior to joining FITU, she 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, co-operatives, agri-food, sustainable development and food policy/management.

Special Projects Manager
Clair Hoare

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e: clairhoare@ucc.ie



Clair joined the FITU team in August 2022 and is involved with the administration of the short courses offered through foodlineUCC. 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 producers in the area of food safety, compliance and 3rd party certification.

Programme Manager
Nadia Grasso

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Nadia joined FITU in August 2022, she is currently managing the Postgraduate Diploma in Dairy Technology and Innovation. She is also a PhD candidate in Food Science, in the 4th year of her PhD project. Nadia has a particular interest in food innovation and sustainability.

Financial Administrator
Catherine Connell

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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

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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 background in Applied Psychology, Coaching Psychology and Learning & Development Vicky worked in private industry for 13 years prior to joining UCC.

Administrator
Bernie O'Connell

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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



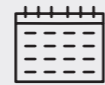
Length

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.

For further information please contact:

Maura Conway

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

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Part-time Diploma in Speciality Food Production

Blended
Level
7

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

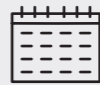


Length

1 year part-time



Location

University
College Cork
and online

Start Month

October

Part-time Diploma in Speciality Food Production

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 Delivery:

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

Programme Content:

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.

For further information please contact:**Dr Angela Sheehan**

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University College Cork

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Part-time Diploma in Food Manufacturing Management

Blended
Level
7



Length

1 year part-time



Location

Varied locations around Ireland and online



Start Month

May

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 12 months and consists of ten two-day workshop modules at selected venues around Ireland. Each participant will complete a research project in addition to learning logs and assignments at the end of each of the workshops.

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

For further information please contact:

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Programme Director
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Diploma in Leadership for the Agri-Food Sector

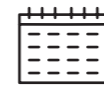
ONLINE
7



Length
1 year part-time



Location
Online



Start Month
September

Diploma in Leadership for the Agri-Food Sector

ONLINE
7

Introduction

This programme is designed to meet the management and leadership development needs of young agri-food graduates in the first years of their working life. Alongside the core technical business skills and best practice tools, the programme will equip participants with motivation and coaching skills that will enhance their professional identity and capability. As a result of this programme, participants will be able to embrace new challenges within their organisation and help to grow and have a lasting impact on their company in this fast-paced industry.

Programme Content:

The Programme design facilitates individuals who wish to study on a part-time basis and integrate their studies with their full time careers. Participants will attend ten two-day interactive workshops which will be held online. An in-company project is undertaken by each student which enables course participants to gain an in-depth appreciation of a topic of their choice within their company. In addition, assignments will be given, linked to each workshop.

Course modules include:

- Communication & Presentation skills
- Introduction to Management & Performance Management
- Project Management & Team working
- Finance for Non Financial Managers
- Decision making & Critical thinking
- Innovation, Sales & Marketing
- Business Planning
- Lean
- Time Management

For further information please contact:

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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.

Aims and Objectives:

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.

Who should attend:

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.

Learning approach:

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.

Duration:

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

Modules:

- 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

For further information please contact:

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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

October

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.

Aims and Objectives

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.

Learning Approach

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 during 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.

Duration

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.

Entry Requirements

The programme is directed at those who have completed an NQF 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.

Modules

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

For further information please contact:

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Postgraduate Diploma in Dairy Technology and Innovation

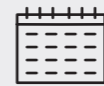
Blended
Level
9



Length
Two blocks
(10 days)



Location
University
College Cork,
Teagasc Cork
and online



Start Month
September

Postgraduate 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.

Aims and Objectives

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.

Learning Approach

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 during 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.

Duration

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.

Entry Requirements

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.

Modules

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

For further information please contact:

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Masters in Dairy Technology and Innovation (work-based)

Level
9






University College Cork, Ireland
Coláiste na hOllscoile Corcaigh



Teagasc
AGRICULTURE AND FOOD DEVELOPMENT AUTHORITY





Length
1 year part-time



Location
University College Cork, Teagasc Cork and online



Start Month
September

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 academic year.

Aims and Objectives

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.

Learning Approach

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.

Duration

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.

Modules

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.

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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
- Ice Cream Science and Technology
- Lean Training - Green Belt
- Production Supervisory Programme
- Thermal Processing
- Concentration and Drying
- Fundamental Course in Cleaning in Place (CIP) for the Food Industry
- Advanced Training Course in Cleaning in Place (CIP) for the Food and Beverage Industries
- Area Cleaning and Sanitisation and its application in the food industry
- Sustainability in the Dairy Sector
- Introduction to the Manufacture and Science of Cheese
- Lean Training - Yellow Belt
- Rejuvenate

Bespoke / Customised Training includes:

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



Digital Badge Images



Introduction to the Manufacture and Science of Cheese



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 this course?

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

Course Programme:

- 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.

For further information please contact:

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Cheese Science and Technology



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.

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.

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

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.

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

For further information please contact:

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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.

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

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.

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

For further information please contact:

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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.

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.

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

For further information please contact:

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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.

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.

Workshop Outline

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

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.

For further information please contact:

Joe O’Callaghan

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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.

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.

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.

For further information please contact:

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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.

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

Modules topics include:

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



For further information please contact:

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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.

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.

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

For further information please contact:

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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.

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.

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

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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 Chruialaoich and Caroline Seacy MMkt, we have run six Rejuvenate programmes since 2019 and have been highly successful in helping women return to paid employment.

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.

Course Programme

Topics include:

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



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.

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Biographical Sketches

Introduction

Cleaning in place (CIP) and Cleaning open plant (COP) are two critical elements in creating and maintaining a plant fit for production of food ingredients and food products.

On our CIP courses we take the participants through both the theory and practice of the CIP process with live examples and experiences of plant design, CIP parameters, chemical choice and common issues encountered and on the advanced CIP course we further expand this with a focus on optimisation and validation.

The COP course covers the wide range of process area cleaning techniques and methodologies used across a broad range of Food processing sectors. The course uses practical examples and experiences to allow the correct scoping, methods, chemical choice, and verification techniques to be made when installing a COP program to your plant or modifying an existing plan.

Nial Mullane is a UCC graduate of Dairy Science and has over 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, Pfizer and Nestle.

He has held project management, validation, and senior plant management roles in these companies. Nial has been a CIP champion for many years and frequently lectures in University College Cork and runs NorthStar training and advisory, a company who specialise in CIP/COP training, validation and advisory to the Food, Dairy and Beverage industries.

Nial is a fellow of the Institute for Food Science and Technology (IFST) and a member of EHEDG (European Hygienic Engineering Design Group) and the Society of Food Hygiene and Technology (SOFHT)

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.

Fundamental Course in Cleaning in Place (CIP) for the Food Industry

Introduction

Cleaning In Place (CIP) for the Food Industry

To introduce industry personnel to the fundamental concepts of CIP processes and parameters.

Who should attend?

Operations, Technical, Project Managers, Quality Assurance, Quality Control and other relevant personnel who operate food processing plants. This course would be also useful for R&D and NPD staff who develop new products or are planning new investments in plant equipment.

Programme Content:

Cleaning In Place

- Safety and environmental aspects of CIP
- What are the 4 T's?
- How each of the T's affect the outcome of your CIP
- Mechanical action (turbulence)
- Chemical force (turbidity/titration)
- Time
- Temperature
- Technology

CIP Delivery Systems

- Components of a CIP system
- The CIP station
- Single and multiple delivery systems
- CIP system safety
- Control and data acquisition systems
- Water quality and its effects on CIP
- Verification and validation
- Post-CIP testing (chemical/microbiological)

Detergents

- Detergents and acids
- Concentrations and the effect on a successful CIP
- Base caustics and acids vs blended chemicals
- In-line measurement of concentration/temperature
- Environmental considerations



Common Issues With CIP Systems

- What constitutes a successful CIP
- What should I look for during CIP to ensure success
- Preventative maintenance items that affect CIP systems
- How can I optimise a CIP system to increase plant availability
- How can I save money and time on my current system
- Capital investment justifications
- What are the problems that I have experienced

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Advanced Training Course in Cleaning in Place (CIP) for the Food and Beverage Industries

Introduction

An advanced CIP course will cover:

- Brief overview of CIP
- Why and how we verify CIP.
- CIP optimisation opportunities
- CIP validation
- Why they are Important?
- What do I need to know?

Who should attend / will benefit?

Operations Area Management, Technical Staff, Project Managers, Quality Control and Assurance Hygienists and other relevant stakeholders who operate and manage dairy, food, and related plants. This course would be also useful for staff who work in plant optimisation or are planning new investments in plant and hygiene equipment.

Benefits of attendance / what will you learn?

What is Clean?

- Prerequisites for successful cleaning /requirements.
- Factors influencing cleaning.
- The importance of a fully functional and verifiable CIP.

Review of CIP Systems, Water, and Chemicals.

- Safety and environmental aspects of CIP.
- Different CIP Systems and the 4 T's?
- How each of the 4T's affect the outcome of your CIP.
- Chemicals and Water.
- Common issues with CIP.

CIP Verification – Is your plant doing what it was designed to do?

- Is your plant fit for purpose?
- What are you measuring and how do you report it?
- Determine if your plant is compliant – producing objective evidence.
- Are you audit ready?

CIP Plant Optimisation

- What have you got – Programmed versus reality.
- Water – The low hanging fruit!
- Chemicals and temperature
- The role of the chemical company and data usage.



CIP System Validation – cleaning the worst-case scenario!

- What is validation, why do we do it, removing the complexity.
- When should it be performed: At the beginning or at the end?
 - Validation prerequisites
 - Cleaning validation protocol
 - Cleaning validation process
 - Cleaning validation report
 - Maintaining the validated state

Post Validation and summary

- Verification and monitoring
- Repeat frequency.
- Change management.
- Lessons learned.

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Area Cleaning and Sanitisation and its application in the food industry

Introduction

A fundamental course in Area Cleaning and Sanitisation will cover:

- What is area cleaning and sanitisation?
- Why is it Important?
- What do I need to know?

Who should attend / will benefit?

Operations Personnel, Technical Staff, Project Managers, Quality Control and Assurance Hygienists and other relevant stakeholders who operate and manage Dairy, Food, and related plants. This course would be also useful for R&D and NPD staff who develop new products or are planning new investments in plant and hygiene equipment.

Benefits of attendance / what will you learn?

Area cleaning and COP principles

- Safety and environmental aspects of area cleaning
- Cleaning Definitions

What is Clean

- Prerequisites for successful cleaning /requirements
- Factors influencing cleaning
- Segregation and incident management (Maintaining the perimeter)

Types and Methods of Cleaning

- Full wet cleaning – Foam, lance, sluice
- Controlled wet cleaning – Equipment/Environmental (critical zones-Micro risks)
- Dry cleaning – the war on water
- Foaming – the choice for cleaning open plant

Cleaning Chemicals – Detergents and Disinfectants

- Detergents /Disinfectants / Sanitisers
- Selection and Modes of action
- Efficacy and compatibility
- Factors affecting disinfection/correct conditions



Cleaning Monitoring and Procedures

- Frequency
- Scoping
- Job plan/Sop's and performing the task
- The end result (Post requisites)
- Post cleaning verification and audit proofing

Common Issues and Summary

- The life cycle approach

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Bespoke / Customised Training Courses



Bespoke / Customised Training Courses

Introduction

What is bespoke training?

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.

For whom is bespoke training intended?

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

In which topics do we offer training?

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

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FOOD INDUSTRY TRAINING UNIT



University College Cork, Ireland
Coláiste na hOllscoile Corcaigh

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