

POSTGRADUATE DIPLOMA (DAIRY TECHNOLOGY AND INNOVATION)

Overview

NFQ Level 9, Major Award

The **Postgraduate Diploma in Dairy Technology and Innovation** is a part-time blended learning programme delivered online and via block-release over one academic year consisting of 60 credits, 30 credits of which are taken as part of the Postgraduate Certificate in Dairy Technology and Innovation. (<https://ucc-ie-public.courseleaf.com/programmes/pcdti/>)

Note: Some modules from the Postgraduate Diploma will also be made available as stand-alone CPD modules. Students will be able to gain an exemption if they have completed one of the relevant stand-alone CPD modules within a three-year period of starting the Postgraduate Diploma. Modules FS6208 and FS6209 are already accredited by the UCC CPD Centre and were delivered in Spring 2022.

Progression to the MSc in Dairy Technology and Innovation (NFQ Level 9, Major Award)

A student who successfully completes and is awarded the Postgraduate Certificate in Dairy Technology and Innovation may register for the Postgraduate Diploma. To progress to the MSc in Dairy Technology and Innovation (<https://ucc-ie-public.courseleaf.com/programmes/mscdti/>) candidates must achieve a minimum 50% aggregate mark over the Postgraduate Certificate and Postgraduate Diploma. Candidates must demonstrate, to the satisfaction of the programme team, through the development of a project proposal, that they have the capability and supports required from their employer to complete a work-based research project (a project proposal template will be provided). Where the number of suitable candidates exceed the number of places available, an interview will be used to assist in the selection process. Applicants need to be working in the dairy sector and have the express support of their employer in pursuing the MSc. If, in the event that a person ceases to work in the dairy industry during their MSc, the programme team would provide the necessary facilities to support completion of the planned project and submission of the dissertation.

Programme Requirements

For information about modules, module choice, options and credit weightings, please go to Programme Requirements (p. 1).

Programme Requirements

Code	Title	Credits
Year 1		
<i>Postgraduate Certificate</i>		
Students take 30 credits as follows:		
<i>Core Modules</i>		
FE6501	Business Processes Across the Supply Chain	5
FE6502	Trends and Dynamics Across Dairy Markets	5
FS6201	Milk Production and Quality	5
FS6202	Dairy Chemistry	5
FS6203	Dairy Processing Technology	5
MB6201	Dairy Microbiology	5

Year 2

Students take **30** credits as follows:

Core Modules

FS6106	Advanced Topics in Dairy Biochemistry	5
FS6208	Cheese Science and Technology	5
FS6209	Ice cream Science and Technology	5
FS6210	Thermal Processing	5
FS6211	Sustainability in the Dairy Sector	5
FS6212	Technologies for Fractionation, Concentration and Drying in Dairy Processing	5

Total Credits **60**

Examinations

Full details and regulations governing Examinations for each programme will be contained in the *Marks and Standards Book* and for each module in the *Book of Modules*.

Programme Learning Outcomes

Programme Learning Outcomes for Postgraduate Diploma in Dairy Technology and Innovation (NFQ Level 9, Major Award)

On successful completion of this programme, students should be able to:

- Describe the role of the principal biochemical components of milk in dairy products, and how these components can be exploited during processing to add value to milk;
- Evaluate the relationships between thermal processing, processing performance, nutrient quality and finished product quality properties of dairy ingredients and products;
- Develop strategies for controlling the quality and end-user performance of fermented, thermally processed, frozen and dried dairy products (e.g., cheese, yoghurt, powders, ice cream);
- Describe the key factors affecting operational efficiency of the main unit operations (heat treatment, homogenisation, fermentation, evaporation, spray drying) used in the dairy industry;
- Evaluate new product and process development opportunities in the dairy industry;
- Describe the key sustainability challenges and opportunities facing the dairy industry.