

QUALITY REVIEW

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CASE STUDY OF GOOD PRACTICE

***THE FOOD INDUSTRY TRAINING UNIT (FITU),
SCHOOL OF FOOD AND NUTRITIONAL SCIENCE***

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The Food Industry Training Unit, School of Food and Nutritional Sciences – A Case Study of Good Practice.

...If we are to secure the recovery and future-proof the Irish economy, we need to put in place a long-term skills strategy to ensure all of our people can reach their full potential and play an active role in building a better Ireland. [Jan O'Sullivan TD, Minister for Education and Skills and Minister for Skills, Research and Innovation in their forward to IRELAND'S NATIONAL SKILLS STRATEGY 2025].

The self-evaluation exercise undertaken by the School of Food and Nutritional Sciences, including a SWOT analysis, identified that the *Food Industry Training Unit* within the School was one of our exemplars of good practice and thus formed the focus of the **Good Practice Case-Study**. We also believed that highlighting and sharing the activities of FITU would be of value to the wider University College Cork (UCC) community. This case-study demonstrates FITU's flexibility in responding and being proactive in anticipating emerging needs in the agri-food industry. By way of context, the *School of Food and Nutritional Sciences* is industry-facing and responsive in its educational and research focus and missions. Importantly, this meets the institutional, regional and national strategic needs in the agri-food sector. Ireland's agri-food industry has been over recent decades, and continues to be, a key component of our modern economy. The agri-food sector is Ireland's largest indigenous industry, employing 8.4% of the working population. Collectively, the sector achieved revenues of €26 Billion in 2015, and the sector accounts for over 10% of merchandise exports. In addition, further growth opportunities have been identified in the Irish Department of Agriculture, Food and the Marine's '*Food Wise 2025*' strategy document, which aims to position Ireland as a world leader in sustainable agri-food production. In recognition of the importance of the agri-food sector and the need for upskilling and training of its workforce, as far back as 1993, UCC established a dedicated *Food Industry Training Unit* in the then Faculty of Food Science and Technology so as to respond to the identified national need for continuing education and training. Following various restructuring of academic bodies within the university, FITU is now a constituent of the *School of Food and Nutritional Sciences*.

The purpose of the Food Industry Training Unit

FITU services the **part-time** (P/T) training, continuing education and continuing professional development (CPD) needs of people working in, or associated with, the Irish food and drinks industry, and is an example of UCC's readiness to evolve and to respond to the needs of industry in its quest for continuing education and professional development.

In partnership with Government, EU, state agencies and industry, UCC continues to develop and evolve food-related education through training and CPD programmes developed and delivered through FITU, within the School of Food and Nutritional Sciences (and this is reflected in FITU's mission statement and strategic goals, as outlined below). These programmes are highly complementary to the traditional education and research activities of the School of Food and Nutritional Sciences and the expertise of academic and technical staff in the School is critical to their successful development and delivery. More broadly, FITU works on a day-to-day basis with several staff not only in the *School of Food and Nutritional Sciences*, but also in the Department of Food Business and Development, School of Microbiology and also academic staff in the Faculty of Commerce. These staff provide academic directorship and lecture on FITU's various courses and programmes. These inter-School/College connections typify the collaborative and interdisciplinary nature of the majority of food education activity in UCC. Since FITU's inception in 1993, UCC's *Centre for Adult Continuing Education* has provided accreditation services to the Unit in relation to its various P/T level 7 academic programmes in food-related areas. In terms of servicing the part-time CPD and training needs of people working in, or associated with, the food and related industries, FITU on an annual basis offers several (non-credit bearing) short courses and bespoke industry in-house programmes. These cover various agri-food-related topics, with *Ice Cream Science & Technology* (<https://www.ucc.ie/en/media/research/fitu/IceCreamBrochure2016.pdf>), *Cheese training* course (<https://www.ucc.ie/en/media/research/fitu/CheeseBrochure2016.pdf>) and *Thermal Processing and Food Labeling Regulations Workshop*, as examples over the last year or two, to give a flavour.

Mission Statement of FITU

“To be a leading provider of high-quality training and CPD for personnel in the food and related industries in Ireland. To develop and deliver courses, thus facilitating the development of participants and strengthening internal capability and competitiveness in companies”.

The strategic goals of FITU are as follows:

- To offer continuing education and training courses to the highest possible standard covering areas of food science and technology, food biotechnology and food business and management relevant to industry;
- To make UCC the first-choice academic provider for these courses regionally and nationally;
- To contribute at a national level to building a knowledge-based industry by providing flexible and responsive systems of delivery and support for learners in industry e.g. blended learning;
- To stimulate the current level of research and innovation in agriculture and food in Ireland through the provision of world-class courses/workshops and symposia in food-related topics;
- To facilitate the process of modularization, credit accumulation and progression in UCC so that students can progress to other courses within this and other institutions;
- To continue to develop new collaborative workplace–education partnerships;
- To provide a supportive and efficient working environment including training and development opportunities for staff of the FITU and also part-time and full-time lecturers;
- To maintain an emphasis on continuous improvement as a way of life.

Design of FITU activities

The following will outline just two examples of FITU activities as most closely linked to the academic provision of the *School of Food and Nutritional Sciences*, as per the focus of the present Quality Review.

1. Background and origin of Diploma in Food Science and Technology

FÁS, the former National Training and Employment Authority, in association with a number of companies in the South-East region of Ireland, identified a need for Continuing Education and Training of employees in the food and drinks sector. Following much consultation between FÁS, representatives from companies in the South-East region and the then Faculty of Food Science and Technology, UCC, a one-year *Certificate in Food Science and Technology* was developed and piloted in Waterford during 1993–1994. Feedback from the participants and their companies indicated a high degree of satisfaction with the Course. Following the success of the Certificate Course, a one-year Diploma course was developed and piloted in Waterford during 1994–1995. This Course was designed to further develop the understanding and knowledge of the principles of Food Science, Food Technology and Food Business. Following their successful piloting in Waterford, these Courses have been offered at other regional locations around Ireland, including Cork, Limerick, Dublin, Fermoy, Dundalk, and Waterford. The Course is currently in its 21st two-year cycle. A brief overview of the implementation of both Courses is provided in **Table 1** below.

2. Background and origin of Diploma in Speciality Food Production

During recent years, Ireland, has witnessed considerable growth in the small food enterprise sector. This sector is characterised by craftsmanship and a high ‘hand-made’ element producing relatively low volume but high value foods. Amongst the product range are numerous varieties of farmhouse cheeses, smoked fish, various meats including charcuterie, specialist poultry and pork products, honey and confectionery. Fresh organic produce may also be included here.

While many of the innovators behind this resurgence have been new entrants to rural food production in Ireland, their ranks have been swelled in recent years by long-established farm families seeking to find a way out of the current squeeze on agricultural commodity prices and farm profitability. While many farmers have long resorted to off-farm employment, and others are

diversifying into non-agricultural activities (e.g., tourism), a third strategy is to find ways of adding value at the farm gate. On-farm production of high quality specialist food and direct selling through short supply chains is becoming increasingly attractive both for monetary reward and creating employment for the family.

The demand for the development of a higher education course to help the growth and survival of the speciality food sector was recognised in 2004 by the President of UCC, who established a Steering Group to drive the initiative. The Steering Group included representatives of the *School of Food and Nutritional Sciences*; School of Microbiology; and Department Geography as well as FITU, within UCC; together with Teagasc Moorepark, Ballymaloe Cookery School, Veterinary Department of Cork County Council, CÁIS (the representative body for farmhouse cheesemakers) and Slowfood Ireland. National agencies that are involved include the Department of Agriculture, Food and the Marine, *Safefood* - The Food Safety Promotion Board, the Food Safety Authority of Ireland and an Bórd Bia – the Irish Food Board. This drive culminated in the establishment of a *Diploma in Speciality Food Production*, which is now in its 12th cycle, and a brief overview of the implementation of this diploma courses is also provided in **Table 1** below.

Table 1: Overview of implementation aspects of the Certificate and Diploma in Food Science and Technology Course as well as the Diploma in Speciality Food Production offered by FITU.

FITU programme	Target Delegates	Course Structure	Venue(s)	Examiners	NFQ*
<i>Certificate in Food Science and Technology</i>	Those working in the food and related industries Production, Quality, Sales, Marketing, Retailing and Management personnel	130 contact hours Primarily lectures, with practical sessions, workshops and industry visits and 150 self-directed hours	Regional: Has been held in Waterford, Cork, Limerick, Dublin, Fermoy and Dundalk	Internal: Setting of paper and correction of scripts External: Review of scripts and assignments	7
<i>Diploma in Food Science and Technology</i>	Those working in the food and related industries Production, Quality, Sales, Marketing, Retailing and Management personnel	130 contact hours Primarily lectures, with practical sessions, workshops and industry visits and 150 self-directed hours	Regional: Has been held in Waterford, Cork, Limerick, Dublin, Fermoy and Dundalk	Internal: Setting of paper and correction of scripts External: Review of scripts and assignments	7
<i>Diploma in Speciality Food Production</i>	People interested in developing/already in speciality food sector e.g., producers, suppliers, culinary specialists etc.	200 contact hours Lectures, practicals, site visits and workshops and 200 self-directed hours	UCC	Internal: Setting of paper and correction of scripts External: Review of scripts and assignments	7

*NFQ:, Level on the National Framework of Qualifications.

A dedicated Programme Manager is responsible for the development, co-ordination, marketing and sales of their respective Certificate and Diploma Courses. Course organisation includes compilation of course materials, co-ordination of lecturers and facilitators, liaising with students and companies, working with internal and external examiners and cost and venue management. Further details on the quality assurance aspects of these courses are provided in the Self-Assessment Report (SER) of the *School of Food and Nutritional Sciences* as part of the overall Quality Review exercise.

Student profile, their feedback and opportunities in relation to their even further progression

The majority of students who undertake FITU courses are employees of the food industry. In addition to industry employees, some students come from Government Departments as well as State and Regulatory agencies, e.g., the Department of Agriculture, Food and the Marine. Most of the

Certificate and Diploma Courses are offered in regional locations and this facilitates the national profile of delegates on the Courses.

In relation to feedback from students of these programmes, a flavour of the importance of the courses to them personally, but also more widely to their employers, is evident from the response by students on completion of the programmes:

‘It improved my knowledge of the food industry and inspired me to continue in my studies and further my career in the food industry’.

‘Value in all the course material. I have added value back to my company through the completion of my two assignments’.

‘I personally found this course very interesting and helpful in the beginning of a career change’.

‘Greatly improved my general knowledge and it is also good to have built friendships with people from a similar background’.

‘The course has been very valuable for both myself and my company’.

‘The knowledge that I have gained is incredible. Really helps me in my job and I can now answer questions from customers and health inspectors quickly and effectively’.

[\[Selected recent testimonials from graduates of FITU’s Diploma in Food Science and Technology\]](#)

‘I really learned an enormous amount on this course and applying that learning to our business just made good common sense’.

‘Attendance at the Diploma in Speciality Food Production course has helped me grasp the tasks involved in setting up a new business. I have obtained a sound knowledge of the process of producing a consumable product in Ireland, from growing the crop to marketing and production. I have also gained a valuable picture of the regulation that surrounds the food industry in Ireland, and in particular developed an understanding how that applies to my product’.

‘I feel that the individual modules (in the Diploma course) have provided a thorough understanding of health, safety, marketing, food science and other areas important to running an artisan food business’.

‘With the benefit of the modules in the Diploma in Speciality Food Production and the discussion forum of my fellow class members I have accumulated a valuable store of practical knowledge and contacts that will be beneficial to me in the next stages of my food enterprise development’.

‘I gained a world of knowledge regarding sales and marketing, proper labelling procedures and HACCP from the Diploma course’.

[\[Selected recent testimonials from graduates of FITU’s Diploma in Speciality Food Production\]](#)

Progression

In relation to opportunities in terms of progression of the students, FITU is very adept in supporting students’ successful participation in these NFQL 7 courses. The School’s SWOT analysis, as part of its SER, identified the opportunity for greater interaction with FITU. One example of this is consideration of routes by which graduates of the FITU level 7 courses could progress into other offerings of the School, with advantages for the students and their employers as stakeholders but also for FITU, the School and the University from a financial and wider reputational perspective. At present the percentage of the graduates who progress to Level 8 or higher courses is low. For example, the only opportunity to progress within the *School of Food and Nutritional Sciences* in UCC for graduates of FITU’s *Diploma in Food Science and Technology* is for those graduates who have a minimum of two years’ experience working in the dairy industry to progress to the *Postgraduate Certificate in Dairy Technology and Innovation* (NFQL 9). This qualification was introduced in 2016 and is a very welcome development from the dairy industry’s point of view.

To illustrate the potential, there has been the progression of a significant number of graduates of FITU’s *Diploma in Food Science and Technology* into the Dublin Institute of Technology’s *Masters in Food Safety Management* (P/T) and the College of Agriculture, Food and Rural Enterprise (Loughry)’s *BSc (Hons) Food Technology* (full-time and P/T). In addition, a small number of graduates of FITU’s *Diploma in Speciality Food Production* have progressed to the Dublin Institute of Technology’s *Masters in Culinary Innovation and Food Product Development* (P/T) and to the *Masters in Food Safety*

Management (P/T). On an annual basis, FITU receives queries regarding the potential for progression within UCC from the students in the *Diploma in Food Science and Technology* and the *Diploma in Speciality Food Production*. Thus, there is a definite opportunity for the *School of Food and Nutritional Sciences* to develop a NFQL 8 or 9 P/T course for relevant graduates from FITU.

Beyond its accredited Level 7 programmes, and as part of its wider training, continuing education and CPD offering for people working in, or associated with, the Irish food and drinks industry, FITU also offers short courses and bespoke in-house training programmes. A flavour of such activities can be obtained from the exemplar listing of FITU's recent course/training programmes, provided in Appendix I below.

Independent stamp of quality on FITU's training activities

Apart of the testimony of past students of FITU courses, a peer review group for FITU's last Quality Improvement/Quality Assurance exercise indicated that they were very impressed by the training provided by the Unit; the commitment and dedication of the staff in and associated with the Unit; and the peer review group were unanimous in their praise for the Unit's staff in all aspects of the course development and delivery. The peer review group also noted that the Unit provided a very valuable link between food-related researchers in UCC and industry, and the group noted that the benefits to both UCC and industry of the activities of FITU were evident as part of their overall review. [*Taken from Peer Review Group report in 2005*].

In addition, in 2015 the President of UCC commissioned an external review of food-related activities within the University, so as to inform the institution on its holistic strategy in relation to Food at UCC going forward. The external review group also recognized the valuable work of FITU and highlighted the possibility of an expanded role as an interface and CPD resource for food at UCC.

Conclusion and lessons from FITU in terms of academic provision

FITU has been in operation for over 24 years and it undertakes the training, continuing education and CPD needs of people working in, or associated with, the Irish food and drinks industry. This type of extension service, unique in Ireland, complements the more traditional undergraduate and postgraduate academic provision of the *School of Food and Nutritional Sciences*, which collectively primed and enhances the workforce of the Irish food industry. The success of FITU is very much based on the confidence of the food and drinks sector in its programmes, as evidenced by the levels of new and repeat business. For example, over the period of the current quality improvement/quality assurance review (2010-2016) alone, there have been 329 students complete the accredited programmes, but every year there are numerous delegates attend FITU's short courses and bespoke in-house training programmes run for industry and other stakeholders. This is only achievable through close interaction with the industry, so as to capture their training needs, and the relevant public bodies as funders, as well as with the academic units in UCC to help plan and operate high- quality and deeply relevant courses. This commitment from the multiple sectors is exemplified by the FITU's formal Business Advisory Board which has been established with membership drawn from industry, third-level institutions and relevant public bodies. The above testimony from graduates of the FITU programmes, which is just a snap shot of recent feedback but which has consistently been the types of responses provided by students over the two decades, also speak to the importance of these courses from a stakeholder perspective. FITU is well positioned to continue in its work to assist companies and the agencies in ensuring that the food and related industry in Ireland will be geared to meet the challenges facing it by having available a well-trained workforce, possessing the new kinds of skills mix that rapidly changing circumstances demand.

Appendix I:

Short courses and bespoke in-house training programmes for industry offered by FITU over the last 2 years

- Ice Cream Science & Technology
- Cheese Training Course
- Thermal Processing
- Food Labeling Regulations Workshop
- Developing High Performing Teams
- Bespoke Dairy Science and Technology Training Courses for Dairygold, Glanbia and Ornuia