



# Part-Time Diploma in Food Science and Technology

















# INTRODUCTION

The Irish agri-food sector is Ireland's most important indigenous industry. The sector is expected to continue to grow significantly in the coming years in response to global opportunities.

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. This course is primarily for those who wish to develop their careers within the food and beverage manufacturing, service and supply industries. Particular emphasis is placed on linking basic principles with the practical application of these principles in industry.

Applicants for the Diploma in Food Science and Technology should ideally have experience in the food and drinks processing, retailing or related sectors.

# PROGRAMME DESIGN

The programme is taken on a part-time basis over two academic years. The course will run over eleven Friday afternoon and Saturday sessions from October to May each year. Classes will be held on the Friday from 14.00-20.00 and on the Saturday from 9.00-16.00. The scheduling of sessions at weekends allows for participants from around the country to attend without impacting too heavily on work commitments. Sessions will consist mainly of lectures with some practical sessions and workshops.

Candidates who successfully complete first year may elect to leave the programme with a Certificate in Food Science and Technology.



Application:
Applications are taken from
May until the class fills.

www.ucc.ie/en/fitu



# PROGRAMME MODULES

### Year 1

### **Food Chemistry 1**

An introduction to the chemistry and the main properties of the principle constituents of foods; lipids, proteins, carbohydrates

### Food Microbiology 1

Develops an understanding of the microbiology of food, the factors affecting the growth of microorganisms in food; food preservation; the role of microorganisms in spoilage and food-borne illness

### **Food Technology**

Primary processing; separation methods; mixing and fluid systems; preservation methods; labelling regulations; traceability and recall

### **Food Engineering**

Develops an understanding of mixing; electricity; heat exchange; boilers and steam; dehydration; refrigeration

### **Nutrition**

Introduction to human nutrition; macronutrients, protein, carbohydrate and fat; human digestion; micro-nutrients, vitamins and minerals; dietary recommendations and nutrient requirements during lifecycle; energy balance and obesity; nutrition and chronic diseases; functional foods and bioactive ingredients

### **Work-Related Assignment 1**

Integrates and applies the knowledge and understanding acquired on the course to a work-related assignment

## Year 2

### Food Chemistry 2

Develops an understanding of the physiochemical properties of food; the chemistry of milk, meat, poultry, fish, cereals, fruits, vegetables and egg

### Food Microbiology 2

Develops an understanding of classification of the microorganisms associated with foods; the role of microorganisms in food borne illness outbreaks; microbiology of selected food products; analytical and rapid detection methods

### **Food Process Technology**

Develops familiarisation with the main food processing technologies used in Ireland; the principle unit operations; the principles of process instrumentation and control; main environmental issues

### **Quality Systems**

An introduction to food safety and quality legislation; quality agencies; quality standards and schemes; food safety and quality audits

### **Food Business**

Provides an overview of the Irish food sector; principles of marketing and distribution and the managerial process; new product development

### Work-Related Assignment 2

Integrates and applies the knowledge and understanding acquired on the course to a work-related assignment





# **TESTIMONIALS**

'The course was very beneficial to me both personally and to my company. I have a better understanding of food science and all parts of the course were relevant.'

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

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

'The Diploma course has helped me in my everyday position and also gave me an understanding of the processes involved in other departments within my workplace.'

'The Diploma is crucial to my development within my company and I have learned a huge amount in the two years.'

For further information please contact:

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