



# BSc (Hons) Food Technology and Product Development

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| <b>UCAS code</b>        | D633   |
| <b>Institution code</b> | H12  |
| <b>Duration</b>         | 4 years (full-time) including a one-year work placement. A three year programme is available for applicants with at least two years, full-time relevant work experience. |
| <b>Start date</b>       | September 2022   |
| <b>Accredited by</b>    | <a href="#">Institute of Food Science and Technology</a> (IFST)  |
| <b>Location</b>         | <a href="#">Harper Adams University campus</a> (and location of work placement)*   |

## The course

The variety of food and drink available to us is continually increasing in its quality, diversity, and interest. This course will help you develop the skills to be at the heart of the food development process adding value to a complex and exciting food industry. You will learn about the range of ingredients available to the food industry, how these ingredients are sourced and how they react together to form some of our most familiar foodstuffs.

You will learn to develop food that can be transported through a sophisticated supply chain whilst retaining its quality for today's discerning consumer, learn about commercialising products, being able to reconcile the conflict between adding value and the cost of a product, and the importance of a clear business strategy to support this. If you wish you will be given the opportunity to enter new product development competitions and start your own food business with the support of Harper Adams expertise to guide you.

## Duration

4 years (full-time) including a one-year work placement. A three year programme is available for applicants with at least two years, full-time relevant work experience. Please contact [Admissions](#) for further information on this option.

## A-level entry requirements

- Offers tend to be in the region of **88 - 104** UCAS points
- Students should typically be studying **3 subjects at A2 level** to be considered
- No more than 2 arts-based subjects out of 3 A levels
- Science A Level **is not required**
- **4 GCSEs at grade C/4 or above**, including English Language, Maths and a Science
- **Food Technology** at GCSE and/or A Level preferred (but not mandatory)
- BTEC level 2 in Science at grade M will be accepted as an alternative to GCSE Science at grade C/4
- Applicants can expect to receive offers including specific grades in specific subjects (for example, a B or C at A level, or an M or D for BTEC modules)

- Key Skills (and other level 2 variants) and First Certificates/Diplomas are not accepted in place of GCSE passes
- General Studies and Critical Thinking are encouraged but **not** included in grades required
- Applicants are encouraged to gain relevant **work experience**
- Interviews will take place on an ad-hoc basis should the Course Manager wish to discuss any aspect of your application and for all potentially suitable applicants who require visa sponsorship.
- Overseas applicants please check our [English Language Requirements](#)
- We have developed a range of measures and initiatives to give everyone the best chance to access our undergraduate degree programmes. The main feature of **Access to Harper** is our contextualised offer scheme. A contextualised offer is an offer which is reduced, by one grade or more from the standard entry requirement and is made to those applicants who may have experienced personal circumstances which put them at a disadvantage during their education, such as attending a low achieving school, living in an area of low participation in Higher Education or being a Care Leaver. The aim of this is to make the University more accessible for those applicants who may not have previously thought that they were eligible to apply. We have also introduced reduced entry requirements for those applicants who are over 21 years of age and further initiatives to make the application process easier for those applicants who need it.

To check if you qualify please visit the [Access to Harper](#) page.

*Note: Entry Requirements are for guidance only, please check the UCAS website or contact Admissions for further information.*

## Work placement

In the third year you will have the opportunity to gain first-hand experience through the work placement. You will build on theory learned in the classroom and acquire valuable practical skills. Work placement can take place in the UK or abroad and it is usually paid. It is a good opportunity to try areas and aspects of the food industry before becoming a qualified professional.

## Accreditation



This course is accredited by the Institute of Food Science and Technology.

## Teaching and learning

### What you study

All Food students share a common first year, studying the same modules. In your second and final years you will focus on your chosen specialism. You will study subjects such as food creativity, styling and photography, food product development and sensory evaluation, retail environment and operations as well as European food innovation and trade and consumer behaviour. You will become familiar with the scientific properties of different food elements and compositions, be able to experiment with foods to develop your understanding of how ingredients behave when processed in different ways and to design and create your own food and drink ideas for development to become confident in working creatively with food.

### Teaching and learning

Learning at Higher Education level is a big step up from further education so we make sure you get lots of advice and support. Everyone learns differently and in the workplace you'll need to work in different ways, so we make sure our courses test you in every way possible. Therefore, you will attend lectures and tutorials,

undertake regular hands-on practical work in the laboratories or on the farm, sit exams, and complete coursework assignments. Guest speakers and visits to industry all support the learning. All students undertake a major project in their final year concentrating on a topic that is of particular interest to them.

\* During the Covid-19 Pandemic the University is delivering blended learning. Government guidance is being constantly reviewed to establish the learning events which can be delivered face to face. Please refer to our [frequently asked questions](#) for further details.

## Assessment methods

Assessment is via a balance of course work and examination. Students receive written feedback on all course work to help them improve. In addition, first year students undertake examinations in two subjects at the end of the first term to enable them to gauge how they are progressing and feedback is provided on these exams. Examples of assessments may include a group of three students present on a specific issue in food production – e.g. pesticide residues in crops / fresh produce – and how the relevant farm assurance schemes requirements effectively manages the risk to levels which remove the problem / risk from the food chain.

## Careers

Students will have the opportunity to develop excellent food industry knowledge in a subject area recognised by the industry for employment in a wide range of food careers both in the UK and abroad. Opportunity for regular travel is significant as many ingredients are sourced from across the globe.

Our graduates have an excellent employability rate and record, many being offered graduate jobs whilst on placement. The high level of skill and specialist knowledge makes graduates from this course uniquely prepared for food technical, auditing and processing roles.

Graduates can expect to be involved in the decisions necessary to manufacture, develop and improve food and drink products in a dynamic and fast paced environment.

Food technologists are at the centre of product design, formulation, food safety and quality assurance in the food industry.

# What will I study?

| Year | Study time<br>(The percentage of time spent in different learning activities) |                             |                     | Assessment methods<br>(This is the breakdown of assessment methods) |                 |            |
|------|---|-----------------------------|---------------------|---|-----------------|------------|
|      | % time in lectures, seminars and similar                                      | % time in independent study | % time on placement | Written exams   | Practical exams | Coursework |
| 1    | 38%   | 62%                         | 0%                  | 19%   | 2%              | 79%        |
| 2    | 32%   | 68%                         | 0%                  | 20%   | 0%              | 80%        |
| 3    | 0%  | 0%                          | 100%                | 0%  | 0%              | 100%       |
| 4    | 25%   | 75%                         | 0%                  | 27%   | 0%              | 73%        |

| Year 1   | Year 2   | Year 3         | Year 4   |
|--|--|----------------|--|
| Academic and Professional Skills for the Food Industry (F4001C17) 15 | Research Methods (Food, Marketing and Business) (F5007C17) 15                  | Placement year | Honours Research Project (HRPROJC17) 30        |
| Introduction to Food Science (F4002C17) 15                           | Food Creativity, Styling and Photography (F5008C17) 15                         |                | Food Retail Buying (F6015C17) 15               |
| Issues in Global Food Production (F4004C17) 15                       | Principles and Practices of Food Sustainability (F5009C17) 15                  |                | Supply Chain Management (F6016) 15             |
| Marketing Principles (R4009C17) 15                                   | Retail Environment and Operations (F5010C17) 15                                |                | Food Quality Management (F6010C17) 15          |
| Wellbeing Through the Lifecycle (F4008C17) 15                        | Food Product Development and Sensory Evaluation in Supply Chains (F5011C17) 15 |                | Food Product Manufacture (F6009C17) 15         |
| Nature of Food (F4007C17) 15   | Food Biotechnology and Food Processing (F5013C17) 15                           |                | Consumer Behaviour (F6006C17) 15               |
| Introduction to Food Service and Retail (F4003C17) 15                | Hygiene and Food Safety (F5012C17) 15  |                | Food Security and Sustainability (F6011C17) 15 |
| Logistics and Distribution (F4006C17) 15                             | Food Marketing (F5004C17) 15   |                |  |
| <b>Options</b>   | <b>Options</b>   |                |  |
| Language I (French, German or Spanish) (B3001/2) 15                  | Language II (French, German or Spanish) (B4015/17) 15                          |                |  |

## Academic and Professional Skills for the Food Industry

**Year of study** 1

**Code** F4001C17

**Credits** 15

**Core/option** Core

**Module contact** [Dr Helen Pittson](#)

This module supports the student in adapting to and learning how to maximise their potential during their time at University. It aims to help the student develop skills that will be of benefit to them during their academic career as well as in their professional development in the future. The module supports the student's development of written and oral communication skills whilst enabling the student to become an increasingly independent learner. The module will provide the student with opportunities to learn relevant skills including, independent learning and group working, specific skills such as report writing with consideration for sector specific requirements and preparing a range of different report formats which are critical to the success of their studies. Students are required to develop skills in preparation of a curriculum vitae (CV) enabling identification and recording of their developing individual skills, experiences and

attributes in preparation for placement and applications for full-time employment following graduation. This module will also introduce the concept of continuing professional development (CPD) and how this can be applied to a student's development throughout their higher education experience as well as their future career development. In support of this students will have the opportunity to undertake additional certification opportunities (e.g. food hygiene, HACCP at different levels) throughout the course of their studies that will further enhance their potential employability.

## Introduction to Food Science

**Year of study** 1  
**Code** F4002C17  
**Credits** 15  
**Core/option** Core  
**Module contact** [Professor Frank Vriesekoop](#)

Food production occurs in a fast moving environment which demands continuous optimisation and innovation in order to remain economically and environmentally sustainable. Most of these innovations and optimisations require a solid foundation of the underlying sciences that are required to understand the impact on both safety and quality of food products.

This module will develop an understanding of the basic scientific principles that underpin a range of aspects of food sciences and technologies. These include introductory concepts of biology, chemistry and physics and how they apply to foods and humans who consume these foods. In addition, this module provides an introduction to basic laboratory skills.

- Examine the underpinning biological, physical and chemical principles of food science and technology.
- Explain the principles of the main biochemical and physiological processes contributing to growth of micro-organisms, food plants and food animals.
- Explain the human interaction with food in relation to nutritional requirements and sensory perception.
- Assess the basic "farm-to-fork" processes involved in the production of a range of food commodities.
- Apply basic laboratory techniques in the study of food.

## Issues in Global Food Production

**Year of study** 1  
**Code** F4004C17  
**Credits** 15  
**Core/option** Core  
**Module contact** [Dr Wilatsana Posri](#)

Food supply and security, the provision of high quality foods, safe foods and access to diets that provide good nutrition are key challenges for the world in the 21st century. Currently agriculture provides much of the world population's need for food, though not everyone has access to food of the right quantity or quality. Even though the structures and dynamics of the global food supply system are complex, an understanding of how the system operates and how issues of food production, food security, quality and safety, etc., interact and are resolved is fundamental to the study of food and the pursuit of careers in the food industry.

This module introduces students to the issues associated with global food supply within the context of human dietary needs, agricultural production systems, agricultural biotechnology and concepts of food security and sustainability, and quality and food safety.

## Marketing Principles

**Year of study** 1  
**Code** R4009C17  
**Credits** 15  
**Core/option** Core  
**Module contact** [Claire Robertson](#)

Effective marketing is central to the success of individuals and organisations. All managers need to contribute to developing and delivering products and services which meet the actual or potential needs of customers more effectively than competitors. This module covers the role of marketing and its underpinning theories. It then examines the range and integration of activities required to implement the marketing concept in various business contexts. There will be a strong focus on reviewing real world examples and on appropriate application of marketing practice principles and practice. The module will establish a broad appreciation of the discipline as preparation for placement work. Specialist marketing students will study various aspects in more depth in modules which concentrate on component areas, for example New Product Development and Sales and Customer Service.

## Wellbeing Through the Lifecycle

**Year of study** 1  
**Code** F4008C17  
**Credits** 15  
**Core/option** Core  
**Module contact** [Dr Helen Pittson](#)

This module provides an understanding of the impact of nutrition on the requirements of growth, development and aging in humans. It will also look at the relationship between diet and health at different points in the life cycle as well as how dietary interventions can provide long-term benefits to individuals and populations. The module will also consider environmental and physiological factors which may impact on food throughout the lifecycle.

## Nature of Food

**Year of study** 1  
**Code** F4007C17  
**Credits** 15  
**Core/option** Core  
**Module contact** [Mrs Lucy Catley](#)

Food is fundamental to the existence, health and well-being of humans. The characteristics, quality and value of any food or food ingredient is the result of its composition, structure, and technical functionality. Functionality is considered in relation to health related qualities in addition to any nutritional value.

The module provides students with a foundation for developing their understanding of foods, food ingredients, functionality and technical attributes. It enables students to relate scientific principles to the nature of food, the physical and technical properties of foods and food materials, and their value as sources of nutrition.

## Introduction to Food Service and Retail

**Year of study** 1  
**Code** F4003C17  
**Credits** 15  
**Core/option** Core  
**Module contact** [Alastair Boot](#)

The retailing of food has become a very complex activity, with the increasingly sophisticated consumer tastes and a diversity in how food is delivered to the consumer. In food retailing, consumers are becoming more diverse in terms of tastes, attributes, costs, lifestyle and cultural background; resulting in a demand for

an ever more diverse food retail and service delivery formats and marketing channels. This module is designed to develop both an understanding of the drivers of consumer behaviour and the operational constraints of the varied delivery formats in both the food retail and service sectors. The module aims to facilitate the students' appreciation of the issues facing the food supply chain in supplying these sectors.

## **Logistics and Distribution**

**Year of study** 1  
**Code** F4006C17  
**Credits** 15  
**Core/option** Core  
**Module contact** [Dr James Bell](#)

Logistics focuses on the flow of goods, services and related information along chains linking primary producers, processors, manufacturers, retailers and consumers. It aims to get the right thing, in the right quantities, to the right place, at the right time and cost, to meet the demands of successive customers, sustainably. The module will examine how logistics activities are integrated to provide the required quality and customer service for the minimum possible cost. This involves planning, implementing and controlling efficient and effective movement and storage, including the return of materials for reuse, recycling or disposal. By providing an introductory understanding of the role of logistics and distribution, this module will lay the foundation for further studies in subjects such as Supply Chain Management.

## **Language I (French, German or Spanish)**

**Year of study** 1  
**Code** B3001/2  
**Credits** 15  
**Core/option** Option  
**Module contact** [Zorka Besevic](#)

The purpose of this module is to develop the ability and confidence of students to use French, German or Spanish effectively for the purposes of practical communication and the exchange of information. The module aims to form a sound base of skills language and attitudes appropriate to individual interests for further study, vocational and leisure based purposes. The module outcomes reflect the module aims concerned with providing students with the basic communication skills in French, German or Spanish to fulfill realistic tasks.

## **Research Methods (Food, Marketing and Business)**

**Year of study** 2  
**Code** F5007C17  
**Credits** 15  
**Core/option** Core  
**Module contact** [Dr Karim Farag](#)

Research Methods is taken by all Honours Degree students. The module particularly develops the skills and knowledge necessary to successfully complete the Honours Research Project. However, enhanced research confidence will also be an employability skill for the placement period and careers on graduation.

The module will cover the key elements of the research process, set in the context of the student's own course discipline. Students will examine the academic role of research and how it informs professional and managerial practice. They will enhance their ability to locate, select and critically evaluate information associated with a particular problem, using a range of sources and particularly peer reviewed empirical studies. By carrying out statistical analysis using appropriate software, the students will develop their ICT skills and further their understanding of the role of statistics in the research process.

- Critically assess information and research quality, in the context of its value and limitations for advancing knowledge and making decisions on design, production, welfare, resource management, marketing, sustainability and policy.

- Plan, test and evaluate research designs, including problem definition, data collection sampling and analysis methods.
- Apply statistical principles and analysis techniques to identify patterns, relationships and trends in data and make qualified predictions.
- Effectively interpret data using inferential statistics to test hypotheses and draw valid and appropriately qualified conclusions.
- Competently use and critically evaluate computer-based systems for secondary research, data collection, entry and processing, statistical analysis and communication of results.

## Food Creativity, Styling and Photography

**Year of study** 2  
**Code** F5008C17  
**Credits** 15  
**Core/option** Core  
**Module contact** [Rachel Hilton](#)

A continual supply of new food products is the lifeblood for the food industry. Processes for achieving this are little changed over many decades but the skills required of employees to maximise new food product success in a modern food supply chain are changing. The creativity of novel concepts, high impact product presentations to the retailers or food service companies and the portrayal of appetizing products on finished product packaging, websites and social media are now an integral part of product development and companies are dedicating considerable resource to these activities. Increased flair and a creative approach ensure that innovative new products are initiated, designed and styled to their full potential to meet customer's satisfaction.

This module is designed to equip students with the skills required for successful recipe development in a demanding commercial environment and to give them the confidence and tools to practice these skills throughout higher education and beyond. Experimentation with food, both theoretically and practically, coupled with the effective use of photography to capture styled creative concepts that meet the needs of media and promotional outlets and social media. This module will prepare students well for their career in product development or other creative food industry positions.

## Principles and Practices of Food Sustainability

**Year of study** 2  
**Code** F5009C17  
**Credits** 15  
**Core/option** Core  
**Module contact** [Mr Luís de Aguiar](#)

Achieving sustainability has been described as the single most important challenge facing humanity. The Foresight report on the Future of Food and Farming in 2011 set out the UK government's agenda which strives to "...*redesign of the whole food system to bring sustainability to the fore*". The aim of this module is thus to provide students with a thorough understanding of what sustainability means and the relevance it has for stakeholders in the food sector based on the triple bottom line framework: economic, social and environmental spheres.

Owed to the interdisciplinary field of sustainability, the module introduces relevant theories and explores different tools and concepts being used to provide sustainability solutions. The multidisciplinary factors that shape and inform sustainability are explored through case studies and examples of different strategies being applied to more specific food and agriculture examples. These will be used to help students understand the links and interconnections between how and what types of foods are produced, processed and consumed and the impact these might have on the planet's resources.

## Retail Environment and Operations

**Year of study** 2  
**Code** F5010C17  
**Credits** 15  
**Core/option** Core  
**Module contact** [Mr Martin Anderson](#)

Changes within the retail environment are both rapid and diverse, with increasingly mobile, demanding consumers and with growing competition between retail formats, across national boundaries, and between different retailing channels. To meet the challenges presented by such a dynamic environment, modern retailers need to adopt efficient and effective management of activities and resources. It is essential for retailers to add value to their product offering, through careful product selection and category management, store location, design and servicing as well as visual merchandising, to maximise both productivity and profitability. This module introduces the student to the main environmental and operational variables and considers current trends and examples of best practice across a range of both domestic and international retailers. The modules Retail Consumer and Principles of Marketing are considered desirable pre-requisites.

## **Food Product Development and Sensory Evaluation in Supply Chains**

**Year of study** 2  
**Code** F5011C17  
**Credits** 15  
**Core/option** Core  
**Module contact** [Rachel Hilton](#)

Food Product Development (FPD) is an activity fundamental to the organic growth and security of food businesses and is constantly reflected in the ever-changing product lines of food retailers. It is a strategic activity that requires knowledge, data, planning and organisation if it is to be successful as evidenced by the translation of ideas into products desired by consumers. To turn a new product concept into a successfully selling new product requires the integration of most food business activities amongst all stakeholders in the supply chain from producers onwards to suppliers, manufacturers, retailers and consumers.

Great food products delight many senses at once. How do consumers perceive the quality of food through their senses? What criteria do they use in making judgements about which product to buy? How are sensations perceived from food packaging? These are but a few of the many aspects of sensory evaluation science and its application in food product development contributing to successful product launches.

The module will introduce and demonstrate sensory evaluation as a fundamental practice in FPD. Application of appropriate testing techniques used in different stages in the FPD process, from concept through to design and development, to factory scale up and market launch, including raw materials selection, quality control of manufactured products and packaging and labelling design, will be explained and demonstrated. Theoretical best practice can be very different from reality where a range of pressurising stakeholders with differing goals are present, as are often the financial pressures of high volume low cost products. This difference is often accentuated in a Fast Moving Consumer Goods (FMCG) environment, so it is important for students to experience FPD first hand to aid their understanding and application of the process.

## **Food Biotechnology and Food Processing**

**Year of study** 2  
**Code** F5013C17  
**Credits** 15  
**Core/option** Core  
**Module contact** [Professor Frank Vriesekoop](#)

Food technology graduates need to be skilled in formulating food products, this skill is developed by understanding how food raw materials behave when subject to differing production processes.

A significant group of production processes are focused on the use of food biotechnology. The use of biotechnology is evident in many sectors of the food industry. Traditional biotechnologies such as

fermentation have become commonplace but increasingly modern methods in the applications of biotechnology and related processes are key to the future development of the food industry. This module introduces students to the principles of food processing across a range of raw materials and to both traditional and modern methods of food biotechnology. It assesses biotechnologies based on fermentations, the use of enzymes, genetic engineering and nuclear transfer and considers them as resources for the modern food industry, as adding value to both raw materials and finished food products.

## Hygiene and Food Safety

**Year of study** 2  
**Code** F5012C17  
**Credits** 15  
**Core/option** Core  
**Module contact** [Dr Lynn McIntyre](#)

Food businesses must provide consumers with food that is of suitable quality and is safe to eat. Hygiene and food safety are critical issues for all food businesses. This module provides students with an understanding of the need for food businesses to actively manage hygiene and food safety, in order to satisfy the requirements of customers, consumers and the law. It also provides them with the ability to evaluate the causes and implications of food spoilage and food hazards, and to develop a knowledge of the management techniques required to control hygiene and food safety within a food business context.

## Food Marketing

**Year of study** 2  
**Code** F5004C17  
**Credits** 15  
**Core/option** Core  
**Module contact** [Mr Luís de Aguiar](#)

The aim of the module is to equip students with an appreciation of Food Marketing in a global context. Global marketing has recently become an essential focus for both the realisation of the full potential of a business and its long-term survival; widening business horizons by encompassing the world in scanning opportunities and threats. The concept of the world-as-market is increasingly shaping how global marketers operate, co-ordinating marketing activities to enhance their global competitive position.

## Language II (French, German or Spanish)

**Year of study** 2  
**Code** B4015/17  
**Credits** 15  
**Core/option** Option  
**Module contact** [Zorka Besevic](#)

The purpose of this module is to develop further the level of competence in French, German or Spanish to enable students to function in a vocational or academic context such as a study placement. The module aims to increase students knowledge and application of language in terms of complexity, grammatical accuracy and range of structures, vocabulary and idiom. Through the development of a greater awareness of the nature of language and language learning the module seeks to encourage positive attitudes to speakers of foreign languages and other cultures, employment thereby facilitating future mobility. The module Language I or equivalent is considered a desirable pre-requisite.

## Placement year

**Year of study** 3  
**Core/option** Core

Read our dedicated [Placement Learning](#) pages for information on the many benefits of the placement year.

## Honours Research Project

|                      |           |
|----------------------|-----------|
| <b>Year of study</b> | 4         |
| <b>Code</b>          | HRPROJC17 |
| <b>Credits</b>       | 30        |
| <b>Core/option</b>   | Core      |

The Honours Research Project is designed to allow students to develop the skills and personal resilience needed to undertake a sustained, significant and high quality project. In conjunction with his or her supervisor, and in light of detailed course specific advice, each student will select a topic for investigation. They will then plan, execute and report their project. The module will draw upon learning from other taught modules, but it also requires a high degree of independent learning.

Students will need to apply their learning about the research methods associated with their discipline as they locate data to support their project; they may need to apply methods creatively according to the nature of their research topic. Throughout the module, students will be expected to make choices about the scale and manageability of their work; they will also need to apply good time management skills to ensure success. The project will require all students to search for literature related to their topic and to read independently. Students must make decisions about the direction of their research, and they will be expected to work pro-actively to benefit from supervision opportunities.

Students will be expected to ensure that each part of their project is ethically sound; this means following protocols but also by developing an ethical mind-set which is sensitive to stakeholders and issues arising in the research process. Students must ensure that they attend to issues of health and safety throughout their research.

## Food Retail Buying

|                       |                               |
|-----------------------|-------------------------------|
| <b>Year of study</b>  | 4                             |
| <b>Code</b>           | F6015C17                      |
| <b>Credits</b>        | 15                            |
| <b>Core/option</b>    | Core                          |
| <b>Module contact</b> | <a href="#">Alastair Boot</a> |

Contemporary food supply has evolved over time to exhibit a very strong market orientation. Retailers continue to exercise powerful influence over developments in this sector. For students of food, food marketing and food management, a critical understanding of retail buying practice will enhance career prospects in both commercial and technical roles across the industry and beyond. This module will focus on the retailer perspective in relation to working with industry partners to deliver performance outcomes. It will provide an opportunity to synthesise learning from across the curriculum. The modules Food Marketing and Retail Environment and Operations complement this module but are not prerequisites.

## Supply Chain Management

|                       |                                 |
|-----------------------|---------------------------------|
| <b>Year of study</b>  | 4                               |
| <b>Code</b>           | F6016                           |
| <b>Credits</b>        | 15                              |
| <b>Core/option</b>    | Core                            |
| <b>Module contact</b> | <a href="#">Dr Jane Eastham</a> |

The supply chain constitutes a critical link between primary producers, processing and manufacturing businesses, retailers and the consumers. It is a link that must be structured, organised and managed successfully if businesses are to compete in a dynamic marketplace. Indeed, design and operation of supply chains are often decisive factors in the ability of businesses to achieve competitive advantage. This module examines the concept of the global supply chains and explores the many factors required to create, operate and control supply chains efficiently, effectively and sustainably.

## Food Quality Management

**Year of study** 4  
**Code** F6010C17  
**Credits** 15  
**Core/option** Core  
**Module contact** [Mr Martin Anderson](#)

In the production and processing of foodstuffs, food quality and safety are integrated concepts which apply throughout the whole food chain. The effective management of food quality and safety are intrinsic to the success and security of food businesses. This module provides an understanding of quality assurance and quality management principles and practices as applied throughout the food processing, manufacturing and retailing industries.

The aim module is to provide students with key insights to the subject of quality management and knowledge that can be applied directly in the workplace. Specific attention is given to the theory and practice of quality assurance, quality management, food safety management, the use of quantitative methods, international quality system standards and the role of continuous quality improvement philosophy.

## Food Product Manufacture

**Year of study** 4  
**Code** F6009C17  
**Credits** 15  
**Core/option** Core

A wide range of food processing and preservation methods are used by the food industry today and any graduate of a food science/technology based degree programme ought to possess a competent understanding of the principal methods as well as an appreciation of new and innovative methods.

This module provides students with both a theoretical and an applied understanding of the key food processing, preservation and packaging technologies used in the manufacture of food products, and also comprehension through practical assessment of the ways in which the technologies affect the quality, safety and shelf-life of manufactured food products.

## Consumer Behaviour

**Year of study** 4  
**Code** F6006C17  
**Credits** 15  
**Core/option** Core  
**Module contact** [Mary Munley](#)

An understanding of consumer behaviour is central to the study of marketing and will be of interest to any student considering a career in marketing as well as related disciplines in the farm to fork value chain such as product development and supply chain management. This module is designed to give the student an understanding of the behaviour of consumers using concepts and theories drawn from areas of relevant, contemporary study such as psychology, sociology, anthropology, neuroscience and behavioural economics. There is an applied emphasis to the module in terms of considering consumer behaviour in various contexts including the strategic management of consumer touchpoints and interfaces utilized by marketers.

## Food Security and Sustainability

**Year of study** 4  
**Code** F6011C17  
**Credits** 15  
**Core/option** Core  
**Module contact** [Mr Luís de Aguiar](#)

Food security and sustainability are now topics of critical importance to mankind, and of particular and specific importance to food industry professionals. In recent years, both political instability and cross-border conflicts in addition to global climatic events have increased vulnerability and put pressure on governments and the food industry to come up with strategic food sovereignty and security solutions. Demographic pressure and climate change have been of concern regarding the extent present and future food production systems are sustainable. Intrinsic to this objective is the development of sustainable methods of food production that satisfy human nutrition needs without sacrificing biodiversity and the ecological balance it provides. Food industry managers ought to be able to appraise food security and sustainable food production systems to help them with decision-making and strategic planning processes. Food security and sustainable food production are topics of direct relevance to the contemporary food business environment and the work of the global food industry in contributing to human health and well-being.

This module explores the concepts of food security and sustainable food production in relation to the growing world population; human nutrition; health and well-being; the nature and dynamics of the global food supply system; political and geo-political influences; food aid; agricultural production; the ecological impacts of human food production; food poverty; the sustainability of urban and rural communities. Owing to the cross disciplinary nature of the topics covered in this module the scope is broad.