UNIVERSITY OF LINCOLN

Programme Specification

Title:

Food Science and Technology

Final Award: **Bachelor of Science with Honours (BSc (Hons))**

With Exit Awards at:
Certificate of Higher Education (CertHE)
Diploma of Higher Education (DipHE)
Bachelor of Science with Honours (BSc (Hons))

To be delivered from: 1 Sep 2017

Level	Date
Level 1 or Certificate of Higher Education (CertHE)	2019-20
Level 2 or Diploma of Higher Education (DipHE)	2020-21
Level 3 or Bachelor of Science with Honours (BSc (Hons))	2021-22

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1. Introduction

This document describes one of the University of Lincoln's programmes using the protocols required by the UK National Qualifications Framework as defined in the publication *QAA guidelines for preparing programme specifications*.

This programme operates under the policy and regulatory frameworks of the University of Lincoln.

2. Basic Programme Data

Final Award: Bachelor of Science with Honours (BSc (Hons))

Programme Title: Food Science and Technology

Exit Awards and Titles   Certificate of Higher Education (CertHE)
                                              Diploma of Higher Education (DipHE)
                                              Bachelor of Science with Honours (BSc (Hons))

Subject(s)

Mode(s) of delivery   Part Time

Is there a Placement or Exchange?

UCAS code

Awarding Body   University of Lincoln

Campus(es)   Holbeach Campus

School(s)   National Centre for Food Manufacturing

Programme Leader   Vanessa Sutton (vsutton)

Relevant Subject Benchmark Statements

Professional, Statutory or Regulatory Body Accreditation

Programme Start Date   2019-20

3. Programme Description

3.1 Overview

The BSc (Hons) in Food Science and Technology is diverse with module specifications in order to best prepare students for technical professional roles which may include Food Technologists, Technical roles, Quality, Hygiene and New Product Development openings in and across this broad and fast moving environment. The course acknowledges the importance of a holistic, all encompassing, farm-to-fork supply chain focus across the food sector.

The sector is experiencing momentous change as the living wage and other drivers of cost inflation fuel the large-scale adoption of advanced technologies which require ready access to higher level skills

Curriculum content will be focused, relevant, current, research-engaged, including having research-led teaching, leading to a period of independent scientific research, in accordance with the University's Student as Producer ethos.

The BSc in Food Science and Technology is intended to equip undergraduates with the necessary theoretical understanding accompanied by the essential practical and professional transferable skills to enable them to undertake employment within the food sector, academic research and industrial, commercial, government, and environmental settings.

The course also places considerable emphasis on enhancing intellectual, critical analysis and thinking, problem solving, project and time management, report writing, teamwork, ethics, health and safety, intellectual property, information technology and career management.

The course content is suitable for interested students in food science, food process technologies or engineering and a wider range of food related backgrounds. The key content areas of the programme build on the expertise of existing members of staff whose research engagement and expertise includes but is not limited to teaching in the following key areas:

1. Theoretical and practical training in Food Manufacturing
2. Specialism in Food Chemistry and Nutrition
3. Policies and markets including corporate social responsibility
4. Specialist training in Food Microbiology
5. Skills training in research and professional development relevant to Technical Management
6. Experience of planning, managing, undertaking (including practical work) and reporting of food related project work.

3.2 Aims and Objectives

Educational aims of the programme:
The Bsc (Hons) Food Science and Technology aims to provide:
• An extensive and detailed understanding of a broad range of principles and practices underpinning food science and technology;
• Career development within the food manufacturing sector;
• Personal transferable and management skills of individuals;
• Access to postgraduate qualifications;
• A curriculum relevant to the needs of local and national businesses and provide companies with the means to develop their own technical personnel and managers;

• A curriculum that meets the needs of individuals in employment, studying on a part-time basis.

The programme is distinctive in that it has been developed in partnership with the needs of employers for technical professional roles in various job roles including Quality Managers, Hygiene Managers Development Technologists and Technical assistants and Managers. The broad based curriculum reflects the wishes of employers to see those working at this level demonstrating flexibility through knowledge of a range of subjects and their interrelationship along with effective people and personal management skills. The teaching of specialist topics is through research led areas and may include master classes from industry experts.

Ethical issues have been fully considered in the development of this programme, particularly in the delivery and assessment strategies. If an issue were to arise reference would be made to the university regulations concerned. All foods used in experimentation will originate from the food chain and as such would not have special ethical considerations. Students will be made aware of ethical issues during their independent study and if any arise this will be dealt with during the project proposal stage.

QAA Subject Benchmark Statement:
The subject benchmarks used in authoring this document can be found in the QA benchmarking document. Agriculture, Horticulture, Forestry, Food, Nutrition, Consumer Sciences 2015

Internal contexts:
The BSc (Hons) in Food Science and Technology will be a programme taught through blended part-time distance learning and study blocks based from University of Lincoln's National Centre for Food Manufacturing based in Holbeach, Lincs. The NCFM is focused on supporting the education and business needs of the food industry manufacturers, producers and land-based industries. The NCFM College Executive is charged with ensuring parity with respect to operational and quality processes and the student experience, regardless of the geographical location of the campus where delivery takes place. In support of this strategy, individual academic staff are responsible for the delivery of teaching regardless of location, and students will typically share the same course leader and teaching staff. Access to learning resources and additional support is equitable across campuses. It is acknowledged that access to physical resources in support of teaching varies in nature between campuses. However, when set in the context of the student experience, these are comparable. The BSc (Hons) Food Science and Technology will also contribute significantly towards meeting the Technical Professional Degree Apprenticeship standards. It will introduce new training in response to employers' needs; it will enable the University to work with employers, employees and other organisations to fulfil their needs; through collaboration with professional bodies, regional strategic partnerships and educational providers the skill levels of the workforce in the UK and beyond can be raised; innovation in learning can be promoted to meet employers needs and the award can be used to promote a positive change in employer involvement in continual professional development.

The National Centre for Food Manufacturing (NCFM) is a satellite campus of the University of Lincoln and an internationally recognised provider of education, research and technical business support for the food industry. NCFM is recognised for its highly innovative delivery model, comprising distance learning study, typically supplemented with three weeks of block release study per year. Strategically situated in South Lincolnshire, NCFM serves the UK's largest concentration of food manufacturing businesses.

The NCFM works closely with employers in the food industry, responding to a growing need for skilled food scientists, technologists,manufacturing and operational managers. With our expert food industry know-how and unrivalled collaboration with leading suppliers of robotics and automation, processing and packaging technology, our specialist education and research facility progresses cutting edge work across a number of food sector areas.

The campus is non-residential, leading in blended learning, on a part-time Higher Education, Higher and Degree Apprenticeships. NCFM offers Apprenticeships at Levels 2 and 3 to aid progression, as well as a range of short courses accredited by professional bodies such as the British Retail Consortium (BRC).

High quality research led teaching and learning is at the core of what we do with a well-qualified and committed team, all with extensive experience of the sector informed by close association with businesses. We help over 2,000 individuals each year to advance their skills and achieve qualifications. Over 250 employers, including major international companies such as Moy Park, Tulip, Bakkavör and Nestlé support employees attending courses at NCFM each year

External contexts:

The area hosts one of the highest concentrations of food manufacturing companies in the country and the sector is expanding rapidly. The BSc (Hons) Food Science and Technology responds to the continuing demand for qualified graduates in the food manufacturing industry. There is an acute shortage of trained graduates entering the industry and hence many Food Technologists, Quality managers, Hygiene Managers and Technical management /supervisor roles remain unfilled. The area historically is rural and is dedicated to the production and processing of food materials. High quality, local and widespread accessible Higher Education is essential to provide the companies in this area and those all over the UK with the means to develop their own technical personnel. The provision of the programme will help to raise the profile of the food manufacturing industries to a level where they are perceived positively by young people embarking on their careers. The situation is further extenuated by the rural nature of the South Holland area. Recently qualified graduates are not attracted to the area and young people do not actively seek to live and develop their careers locally. High quality, locally accessible Higher Education is essential to provide companies with the means to develop their own technical personnel. Current and past students have been consulted regarding the course structure and unit content. The BSc (Hons) Food Science and Technology has been developed in conjunction with local employer consultations with local and national employers such as Bakkavor, Moy Park, Tulip, and Freshtime .

3.3 Variations to Standard Regulations and Guidance

A variation to the University's Undergraduate Regulations is in place relating to module credit values at level 3. Follow link for details: http://secretariat.blogs.lincoln.ac.uk/university-regulations/

4. Programme Outcomes

Programme-level learning outcomes are identified below.

Refer to *Appendix I – Curriculum Map* for details of how outcomes are deployed across the programme.

4.1 Knowledge and Understanding

On successful completion of this programme a student will have knowledge and understanding of:

1 Apply using the principles of science and technology to analyse issues relevant to the modern food processing industry

2 Evaluate the structure, function and operation of the food industry and relate to factors which drive and influence it.

3 Demonstrate integrated understanding of food science investigation, its communication and practice in management of food safety and quality assurance strategies

4 Evaluate the importance of the supply chain with regards to Storage of Food, Food Processing, Storage and Preservation in relation to the physical, chemical, allergen and biological content of foods.

5 Demonstrate the importance of food commodities' quality in the food supply chain.

6 Critically evaluate the impact of various food production processes upon environment, financial and management data to develop commercial awareness within the food industry

4.2 Subject Specific Intellectual Skills

On successful completion of this programme a student will be able to:

7 Relate human nutrition to food and health

8 Relate the principles of food science and technology to food process and quality assurance and technical management

9 Critically appraise current developments in food science, technology and manufacture and relate to technical and quality management

4.3 Subject Specific Practical Skills

On successful completion of this programme a student will be able to:

10 Use appropriate laboratory and processing equipment competently, and safely select and apply, a range of appropriate methods to solve problems

11 Successfully undertake a food science and technology reasearch project producing primary data which will be analysed, synthesised and summarised to critically evaluate the research

12 Present research project effectively and appropriately in a number of formats to include written and oral

4.4 Transferable Skills and Attributes

On successful completion of this programme a student will be able to:

13   Manage self and operate effectively within a team

14   Apply effective research skills and strategies by engaging in primary research

15   Plan, prepare and organise to deliver effective presentations and reports

16   Critically evaluate subject, written and numeracy knowledge acquired and relate their application to quality assurance

17   Identify, assess and address issues of health and safety, ethics, confidentiality and other legislative requirements as appropriate to their own study and operational role

18   Successfully complete an independent project by using time and project management strategies including managing own personal development

For details of each module contributing to the programme, please consult the module specification document.

5. Learning, Teaching and Assessment Strategies

5.1. Learning and Teaching Strategy

Learning and teaching strategy:

The teaching and learning strategy adopted within the BSc (Hons) in Food Science and Technology reflects the purposes and objectives set out in the United Kingdom QAA Subject Benchmark Mapping Agriculture, Horticulture, Forestry, Food, Nutrition, Consumer Sciences 2016 statement in the following ways: The teaching and learning strategy adopted within the BSc (Hons) in Food Science and Technology uses a variety of learning modes. The delivery of the programme will also be flexible in that it will be taught primarily by distance learning with the capability of delivery equally by day release. Module tutorials are planned to give students the opportunity to apply, investigate, assimilate and evaluate issues around the core lecture topics. Practical sessions, where applicable, for experimentation and/or illustration of principles, practices and techniques are timetabled for the appropriate modules and typically through student attendance at campus/study weeks. For the science-based modules, taught through research led initiatives, take place in fully supported laboratories where there is full technician support for timetabled activities and for student project work.

The main focus of the research led teaching is the relationship of the teaching to the working experience of the students and hence every emphasis is made to ensure teaching is practically focused, industry relevant and draws upon the experiences of the individual students within the group. The majority of modules will have a work-based assignment built into the assessment where the students will be able to draw upon their experience or indeed experience new environments related to the subject outcomes of the module. Through the blended learning approach, students are encouraged to attend seminars from Guest speakers and Master classes as they are seen as key opportunities for learning in that these enable the theory elements to be applied and analysed in context in the food manufacture industries and their inclusion develops the cultural awareness of the student.

Timetable and semester length:

The part-time programme will typically be completed over 4 years. Students following the supported blended distance learning programme will typically study 7 modules over the course of a year totalling 360 credits over the programme. At Level 3, module length reflects the time and depth requirement for the subject knowledge, skills and behaviours.

Supported distance learning:

This mode of learning adheres to the QAA Code of Practice, section 2: Collaborative Provision and Flexible and Distributed Learning (including e-learning), which addresses the management of flexible and distributed learning. Supported and distance learning is used here to characterise approaches to teaching, learning and assessment that:

• Do not require a student's place of study to be physically located within the institution whose academic award is being sought through successful completion of the programme of study;
• Do not assume that the student is routinely working with other students;
• Do not necessarily require assessment of student's achievement to take place at the location of the awarding institution.

The programme adopts a modular approach in that delivery and assessments will normally follow the

academic timescales. Students will be required to attend the campus for the typically 5 day induction programmes, study weeks and revision/exam week's at all academic levels. Students will require access to a computer with e-mail and broadband facilities.

Delivery of teaching materials will mainly be through Blackboard; the university's VLE. Lectures, has been adopted within the Level 1 modules in which the students can be guided in self-study, laboratory skills and the collection and interpretation of data. In year 1, tutorials are an integral part of the support framework and are particularly relevant given the diverse nature of the students. Level 2 modules, whilst using traditional lectures as a framework, employ increasingly challenging strategies to develop the students' ability to learn independently and employ critical and analytical thought. The main focus of the teaching and learning is through blended learning including on- line digital media lecture presentations, practicals, tutorials and seminars and study weeks with significant emphasis being placed on the initiative of 'student as a producer'. Where circumstances dictate, students may be able to adopt a flexible approach to their learning within the normal structure of the year.

Induction:

Typically the 5 day induction will take place in either September or January prior to the commencement of the programme. It aims to provide the students with the necessary information to participate and contribute to the programme. The induction will include the following:

•An overview of the University regulations and programme structure;
•An introduction to course tutors and administrative staff;
•Study and learning skills;
•Personal Tutor and role
•Study support profiling;
•An introduction to the learning mode, modules and timetables;
•Library and learning resources;
•Presentation of course materials, course handbook and examples of assessments;
•Introduction to the use of Blackboard as an e-learning environment.

Study weeks:

By the very nature of the food industries, elements of the programme are practically based and with the subject being multi-disciplinary, it requires the development of a large range of practical skills which are neither possible nor desirable to ignore. The study week will provide an opportunity for this element to be delivered and for skills to be acquired, developed and assessed and the learning outcomes attained. The study week will typically take place at NCFM sites, Holbeach using the microbiology and chemical laboratories, kitchen and sensory suite and specialist trial factory facilities. This will allow students to fully experience the academic and technical support in food science, management, research and food manufacture. The principle objective of the study weeks are to provide a programmed opportunity for the student to undertake a series of research and practical investigations in support of their studies as a 'student as a producer'. Some of these skills may already have been developed by participants during their employment, but the theme of the weeks are to not only develop laboratory and practical competence, but also encourages the development of problem solving skills in an environment exploring the various disciplines involved in food science. The study weeks will provide an opportunity for the students to:
• Meet with their peers, tutors and support staff;
• Study through supervised practical investigations;
• Develop and enhance new study skills e.g. research, statistics, critical thinking and presentation

skills
• Gain further knowledge of the subject material;
• Integrate aspects of the various disciplines;
• Use the specialist facilities of learning support;
• Have immediate access to tutorial support;
• Undertake some assessments particularly where presentations are involved;

Typically technically based modules which contain practical elements will be undertaken during one of the campus/study weeks. The fees for the study weeks are included in the course fee, but students will be required to meet the costs of their own travel, food and accommodation. The programme administrator will advise with regards to accommodation and travel.

Modules assessed during the programme:

As you progress through your course you can then specialise into areas that most interest you by picking option modules.

Level 1
CORE MODULES:

Food Commodities
Food Law, Ethics and CSR
Food Process Engineering
Food Quality Assurance, HACCP and Hygiene
Food Science
Introduction to Food Chemistry and Microbiology
Policy and Market Dynamics
Food Raw Materials

Level 2
CORE MODULES:
Advanced Food Science
Food Preservation
Managing People in Food Organisations
Nutrition, Health and Diet
Packaging Systems
Foundation Project

OPTIONAL CHOICE MODULE - 1 TO BE SELECTED
Product Development
Fundamentals of Fresh Produce

Level 3
CORE MODULES:
Technology
Food Analysis;
Food Defence and Sustainability

Independent Study
Meat, Seafood and Dairy technologies
Technical Management

OPTIONAL CHOICE MODULE - 1 TO BE SELECTED
Cereal, Fresh Produce and Beverage Technologies or Postharvest Technology

Learning materials:
These will be typically presented via the University's virtual learning environment 'Blackboard' and will be typically in the form of written on-line digital media lecture notes, PowerPoint presentations typically using new emerging digital technologies e.g. videos, recorded seminars, virtual classroom tutorials using current software: Blackboard collaborate, Skype© and Panopto ©, which may be superseded with new and emerging technologies. Practical elements of the modules may typically take place during the study weeks as detailed above. Student to student interaction and 'student as a producer' initiatives will be encouraged and discussion groups will form the basis of some formative assessments, tutor feedback and student participation. Lectures will typically form an integral part of the induction and during study weeks to support the learning materials. There is an ongoing commitment by the department to continually develop new and innovative supported distance learning materials through emerging digital capabilities and new developments will be utilised where appropriate.

Tutors and mentors:
Tutors, mentors and personal tutors will be identified to the student at induction and contact details will be provided in the Supported Distance Learning handbook. All students will be monitored, supported and typically contacted at least once during a semester by the respective personal tutor and module tutors. It is expected that the student should contact their tutor or programme leader with any issues or concerns relating to the programme as soon as they are able. Student support provided by the University is discussed and detailed throughout the programme and described in programme handbooks and included during induction week.

Skills
Throughout the programme students are actively engaged with the development of their academic skills. Students are introduced to study skills and library resources during enrolment week, which are then supported and further developed throughout module delivery.

Workshops during study weeks are designed to support the development and application of skills such as numerical and data analysis which are typically demonstrated in the Work Based Project and later Independent Project. Communication, critical thinking and evaluation skills will develop across modules and levels with support and guidance as well as practical experience.

Module activities progressively develop and apply interpretation of data, statistical and mathematical knowledge in order to support the development of students' ability to transform data to useful information.

The skills typically include:
• Library resources, using the library - accessing databases, journals and book searching.
• Referencing Formatting - in text citation and reference list.
• Reviewing literature and evaluating sources

• Writing and communication skills
• Research methodology, how to research and keep clear research notes.
• Descriptive Statistics and Inferential Statistics
• Statistical and mathematical skills for food business activities
• Summarising data using measures of central tendency
• Analysis and presentation of data using graphs and tables

These skills are fundamental to academic development and are transferrable within the work place which enhances problem solving and data analysis skills. There will be an emphasis on solving work-related problems; presenting and interpreting results through both statistical and mathematical means; and development of skills appropriate to module content throughout the degree programme.

5.2. Assessment Strategy

The assessment strategy adopted within the BSc (Hons) in Food Science and Technology award is varied and may include written reports, work-based research projects, presentations, case studies and practical assessments. The format and timing of assessment is usually planned to take account of the needs of students studying whilst in employment. The assessment timetable is planned, as far as is reasonably practical, to take account of busy periods within the industry.

Practical reports are typically used to assess those modules which focus on the development of skills and knowledge in the scientific and technical aspects of food science and the environment. Typically the focus of the work-based assessments is to provide the opportunity for the individual to link learning to the work experience and hence, projects and written reports which direct and focus students towards this are usually key assessment tools.

Students are provided with an assessment scheme typically at the beginning of each module, which outlines the timing of each assessment with reference to target start, hand-in and return dates. These are planned by the module coordinators prior to the start of the semester to ensure an even distribution of work.

Assessments in the programme are developed, published and assessed using a criterion referencing model with clearly defined grading criteria, 'rubriks'. Each module has an individual assessment strategy and this is stated in the module descriptor, where the link between individual module learning outcomes is made against individual assessment tasks. The equitability of the student's assessment experience is assured by the University's moderation and or second and double-marking procedures. The University's procedures and regulations regarding external verification of marks will be adhered to. To ensure the equitability of learning, employer mentors will recommended to be trained through an induction booklet to ensure that they understand the timescales involved in assessment and the emphasis on work-based learning. There will be individual module tutor and personal tutor support throughout the programme. The campus adheres to all equality and diversity policies and Consumer's Right Act 2015 adopted by the University of Lincoln (as seen in the Equality and Diversity Policy and Consumer's Right Act policy). Students are encouraged to review all the University's regulations and policies and are also posted on the communities' page on Blackboard via the University's portal. All students will be inducted on the use of the University's electronic resources during the induction.

6. Programme Structure

The total number of credit points required for the achievement of Certificate of Higher Education (CertHE) is 120.

The total number of credit points required for the achievement of Diploma of Higher Education (DipHE) is 240.

The total number of credit points required for the achievement of Bachelor of Science with Honours (BSc (Hons)) is 360.

Level 1

Title	Credit Rating	Core / Optional
Food Science 2019-20	15	Core
Policy and Market Dynamics 2019-20	15	Core
Food Process Engineering 2019-20	15	Core
Food Quality Assurance, HACCP and Hygiene 2019-20	15	Core
Food Raw Materials 2019-20	15	Core
Introduction to Food Chemistry and Microbiology 2019-20	15	Core
Food Law, Ethics and CSR 2019-20	15	Core
Food Commodities 2019-20	15	Core

Level 2

Title	Credit Rating	Core / Optional
Advanced Food Science 2020-21	15	Core
Food Preservation 2020-21	15	Core
Nutrition, Health and Diet 2020-21	15	Core
Packaging Systems 2020-21	15	Core
Foundation Project 2020-21	30	Core
Product Development 2020-21	15	Optional
Managing People in Food Organisations 2020-21	15	Core
Fundamentals of Fresh Produce 2020-21	15	Optional

Level 3

Title	Credit Rating	Core / Optional
Food Defence and Sustainability 2021-22	15	Core
Food Analysis 2021-22	20	Core
Independent Project 2021-22	40	Core
Meat, Seafood and Dairy Technologies 2021-22	15	Core
Cereal, Fresh Produce and Beverages Technologies 2021-22	15	Optional
Technical Management 2021-22	15	Core
Postharvest Technology 2021-22	15	Optional

Appendix I - Curriculum Map

This table indicates which modules assume responsibility for delivering and ordering particular programme learning outcomes.

Key: ☑ Delivered and Assessed   ▓ Delivered   ☑ Assessed

Level 1

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Food Commodities 2019-20					✓							
Food Law, Ethics and CSR 2019-20		✓										
Food Process Engineering 2019-20	✓								▓			
Food Quality Assurance, HACCP and Hygiene 2019-20	✓	✓	✓	✓				✓		✓		▓
Food Raw Materials 2019-20	▓			✓								
Food Science 2019-20	✓			✓					▓			
Introduction to Food Chemistry and Microbiology 2019-20	▓			▓								
Policy and Market Dynamics 2019-20		✓				▓						

	PO13	PO14	PO15	PO16	PO17	PO18
Food Commodities 2019-20				✓		
Food Law, Ethics and CSR 2019-20					✓	
Food Process Engineering 2019-20						
Food Quality Assurance, HACCP and Hygiene 2019-20				✓		
Food Raw Materials 2019-20						
Food Science 2019-20			✓			
Introduction to Food Chemistry and Microbiology 2019-20				✓		
Policy and Market Dynamics 2019-20						

Level 2

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Advanced Food Science 2020-21				✓								
Food Preservation 2020-21	✓			✓							✓	
Foundation Project 2020-21											✓	
Fundamentals of Fresh Produce 2020-21												
Managing People in Food Organisations 2020-21												
Nutrition, Health and Diet 2020-21				✓			✓					
Packaging Systems 2020-21				✓								
Product Development 2020-21												

	PO13	PO14	PO15	PO16	PO17	PO18
Advanced Food Science 2020-21			✓			
Food Preservation 2020-21						
Foundation Project 2020-21	✓	✓	✓		✓	
Fundamentals of Fresh Produce 2020-21			✓	✓		
Managing People in Food Organisations 2020-21	✓					
Nutrition, Health and Diet 2020-21						
Packaging Systems 2020-21						
Product Development 2020-21			✓	✓		

Level 3

	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Cereal, Fresh Produce and Beverages Technologies 2021-22	✓											
Food Analysis 2021-22				✓					✓			
Food Defence and Sustainability 2021-22						✓						
Independent Project 2021-22										✓	✓	✓
Meat, Seafood and Dairy Technologies 2021-22	✓											

Postharvest Technology 2021-22	✓									
Technical Management 2021-22		✓	✓	✓		✓		✓	✓	✓

	PO13	PO14	PO15	PO16	PO17	PO18
Cereal, Fresh Produce and Beverages Technologies 2021-22						
Food Analysis 2021-22						
Food Defence and Sustainability 2021-22						
Independent Project 2021-22	✓	✓	✓		✓	✓
Meat, Seafood and Dairy Technologies 2021-22						
Postharvest Technology 2021-22						
Technical Management 2021-22						

Appendix II - Assessment Map

This table indicates the spread of assessment activity across the programme. Percentages indicate assessment weighting.

Level 1

	01	02	03	04	05	06	07	08	09	10	11	12
Food Commodities 2019-20				40							60	
Food Law, Ethics and CSR 2019-20												
Food Process Engineering 2019-20												
Food Quality Assurance, HACCP and Hygiene 2019-20					50					50		
Food Raw Materials 2019-20												
Food Science 2019-20												
Introduction to Food Chemistry and Microbiology 2019-20												
Policy and Market Dynamics 2019-20					50					50		

	13	14	15	16	17	18	19	20	21	22	23	24
Food Commodities 2019-20												
Food Law, Ethics and CSR 2019-20							50				50	
Food Process Engineering 2019-20												
Food Quality Assurance, HACCP and Hygiene 2019-20												
Food Raw Materials 2019-20		50					50					
Food Science 2019-20												
Introduction to Food Chemistry and Microbiology 2019-20										40		
Policy and Market Dynamics 2019-20												

	25	26	27	28	29	30	31	32	33	34	35	36
Food Commodities 2019-20												

Food Law, Ethics and CSR 2019-20												
Food Process Engineering 2019-20												40
Food Quality Assurance, HACCP and Hygiene 2019-20												
Food Raw Materials 2019-20												
Food Science 2019-20											25	
Introduction to Food Chemistry and Microbiology 2019-20			60									
Policy and Market Dynamics 2019-20												

	37	38	39	40	41	42	43	44	45	46	47	48
Food Commodities 2019-20												
Food Law, Ethics and CSR 2019-20												
Food Process Engineering 2019-20					60							
Food Quality Assurance, HACCP and Hygiene 2019-20												
Food Raw Materials 2019-20												
Food Science 2019-20			25		50							
Introduction to Food Chemistry and Microbiology 2019-20												
Policy and Market Dynamics 2019-20												

	49	50	51	52	EP 1 (Wk 16)	EP 2 (Wks 33, 34, 35)
Food Commodities 2019-20						
Food Law, Ethics and CSR 2019-20						
Food Process Engineering 2019-20						
Food Quality Assurance, HACCP and Hygiene 2019-20						
Food Raw Materials 2019-20						
Food Science 2019-20						

| Introduction to Food Chemistry and Microbiology 2019-20 | | | | | | | |
| Policy and Market Dynamics 2019-20 | | | | | | | |

Level 2

	01	02	03	04	05	06	07	08	09	10	11	12
Advanced Food Science 2020-21												
Food Preservation 2020-21												
Foundation Project 2020-21			30							70		
Fundamentals of Fresh Produce 2020-21						50					50	
Managing People in Food Organisations 2020-21					50					50		
Nutrition, Health and Diet 2020-21												
Packaging Systems 2020-21												
Product Development 2020-21						50					50	

	13	14	15	16	17	18	19	20	21	22	23	24
Advanced Food Science 2020-21												
Food Preservation 2020-21											40	
Foundation Project 2020-21												
Fundamentals of Fresh Produce 2020-21												
Managing People in Food Organisations 2020-21												
Nutrition, Health and Diet 2020-21												
Packaging Systems 2020-21										50		
Product Development 2020-21												

	25	26	27	28	29	30	31	32	33	34	35	36
Advanced Food Science 2020-21									25			25
Food Preservation 2020-21							60					
Foundation Project 2020-21												

Fundamentals of Fresh Produce 2020-21												
Managing People in Food Organisations 2020-21												
Nutrition, Health and Diet 2020-21												
Packaging Systems 2020-21					50							
Product Development 2020-21												

	37	38	39	40	41	42	43	44	45	46	47	48
Advanced Food Science 2020-21					50							
Food Preservation 2020-21												
Foundation Project 2020-21												
Fundamentals of Fresh Produce 2020-21												
Managing People in Food Organisations 2020-21												
Nutrition, Health and Diet 2020-21	50				50							
Packaging Systems 2020-21												
Product Development 2020-21												

	49	50	51	52	EP 1 (Wk 16)	EP 2 (Wks 33, 34, 35)
Advanced Food Science 2020-21						
Food Preservation 2020-21						
Foundation Project 2020-21						
Fundamentals of Fresh Produce 2020-21						
Managing People in Food Organisations 2020-21						
Nutrition, Health and Diet 2020-21						
Packaging Systems 2020-21						
Product Development 2020-21						

Level 3

	01	02	03	04	05	06	07	08	09	10	11	12
Cereal, Fresh Produce and Beverages Technologies 2021-22												
Food Analysis 2021-22												
Food Defence and Sustainability 2021-22							60			40		
Independent Project 2021-22												
Meat, Seafood and Dairy Technologies 2021-22												
Postharvest Technology 2021-22												
Technical Management 2021-22						50			50			

	13	14	15	16	17	18	19	20	21	22	23	24
Cereal, Fresh Produce and Beverages Technologies 2021-22											50	
Food Analysis 2021-22												
Food Defence and Sustainability 2021-22												
Independent Project 2021-22												
Meat, Seafood and Dairy Technologies 2021-22										40		
Postharvest Technology 2021-22											50	
Technical Management 2021-22												

	25	26	27	28	29	30	31	32	33	34	35	36
Cereal, Fresh Produce and Beverages Technologies 2021-22			50									
Food Analysis 2021-22									25			
Food Defence and Sustainability 2021-22												
Independent Project 2021-22							5					
Meat, Seafood and Dairy Technologies 2021-22						60						

Postharvest Technology 2021-22			50									
Technical Management 2021-22												

	37	38	39	40	41	42	43	44	45	46	47	48
Cereal, Fresh Produce and Beverages Technologies 2021-22												
Food Analysis 2021-22	25				50							
Food Defence and Sustainability 2021-22												
Independent Project 2021-22		80			15							
Meat, Seafood and Dairy Technologies 2021-22												
Postharvest Technology 2021-22												
Technical Management 2021-22												

	49	50	51	52	EP 1 (Wk 16)	EP 2 (Wks 33, 34, 35)
Cereal, Fresh Produce and Beverages Technologies 2021-22						
Food Analysis 2021-22						
Food Defence and Sustainability 2021-22						
Independent Project 2021-22						
Meat, Seafood and Dairy Technologies 2021-22						
Postharvest Technology 2021-22						
Technical Management 2021-22						

Appendix III - Benchmark Analysis

This table maps programme learning outcomes to relevant QAA subject benchmark statements or PSRB guidelines.

Knowledge and Understanding

Subject Specific Intellectual Skills

Subject Specific Practical Skills

Transferable Skills and Attributes

Appendix IV:
Benchmark Benchmark Statement(s)