Course Specification
Part A

BSc (Hons) Food Science
HLSU243

Faculty of Health and Life Sciences
School of Life Sciences
Academic Year: Year 1 entrants 2021-22

Please note: This specification provides a concise summary of the main features of the course and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if s/he takes full advantage of the learning opportunities that are provided.

We regularly review our course content, to make it relevant and current for the benefit of our students. For these reasons, course modules may be updated.

More detailed information on the learning outcomes, content, and teaching, learning and assessment methods of each module can be found in the Module Information Directory (MID), student module guide(s) and the course handbook.

The accuracy of the information contained in this document is reviewed by the University and may be verified by the Quality Assurance Agency for Higher Education.

PART A Course Specification (Published Document)

BSc (Hons) Food Science

1. Introduction

Food and drink production is the largest industry both nationally and internationally and continues to grow in size, scope, importance and public profile. The UK food industry employs 450,000 people contributing almost £31.1 billion to the economy (Food and Drink Federation 2020). Globally, there is a growing awareness by industry, regulators and the general public of the need for better scientific understanding right across the food chain. The industry is always seeking competent food and nutritional scientists who are well equipped with practical skills and knowledge to ensure that food production remains safe, nutritious, of high quality and full of flavour.

The BSc Food Science course is designed to equip you with a thorough understanding of food science within the food and nutrition industry. The course encompasses food production, processing and preservation, food analysis and evaluation, quality control, assurance and regulation, together with understanding of the nutritional requirements of individuals and populations. Graduates are well placed to consider employment in many aspects of the food industry and food and nutrition research, including food production, food analysis, food evaluation and food regulatory affairs.

The BSc (Hons) Food Science degree course is accredited by the Institute of Food Science and Technology (IFST). IFST accreditation provides assurance of the educational standards of the course and can be advantageous for graduates seeking employment in the food sector. Student Associate Membership of IFST allows you to access global networks and resources to enhance your professional development and career prospects.

The first year of the course introduces you to the basic principles of nutrition, human physiology and biochemistry, microbiology, food chemistry, food legislation and public health. Scientific writing, data analysis, reporting of laboratory experiments and principles underlying food hygiene are considered. In the second year, you build on this knowledge and explore aspects of food properties, food microbiology, food preparation, food processing and preservation and consider nutritional requirements through the lifespan. You will continue to develop your research skills in preparation for the final year. In the final year, you will be able to further your understanding of the global initiatives in the food industry by study of the role of biotechnology in modern food production, food security and sustainability and exploring novel product design for a target market. You will undertake a research project which will be designed and reported with the support of an academic supervisor.

The course provides many opportunities to enhance your study experience. There are options to take part in field trips, opportunities to improve particular skills and competencies and to explore careers options. The course also includes the option to incorporate a year of appropriate work experience, in a variety of settings, or a year of study abroad, taken between years 2 and 3. There will also be opportunities to interact with students at overseas institutions through Collaborative Online International Learning projects, or via international co-creation events hosted at European Universities.

Each year of the course also includes an Add+Vantage module. The Add+Vantage scheme is designed to enhance students' skills and competencies for employment. Modules offered within this scheme are varied and you can choose from options in enterprise, business, marketing, languages, academic skills, voluntary work and other areas that enhance employability. Professional skills development including communication to diverse audiences, both scientific and non-scientific, digital literacy, planning and research skills are a key focus of the course, ensuring that you are well prepared for future employment or further study.

You will benefit from the outstanding facilities in our purpose-built Science and Health building, which includes a biosciences superlab and analytical laboratory. These facilities will allow you to gain hands on experience in contemporary laboratory techniques. You will also work within a teaching kitchen, where you are able to enhance your cooking skills and develop new food or drink products. You will be taught and supported by a team with a diversity of specialist expertise and professional experience, including analytical chemists, Registered Nutritionists, food scientists, food microbiologists, and experts in food safety. In addition, guest lecturers who are experts in their fields further enhance student learning experiences. Many staff are research-active, which is of particular value for embedding research examples within teaching.

2 Available Award(s) and Modes of Study			
Title of Award	Mode of attendance	UCAS Code	FHEQ Level
BSc (Hons) Food Science BSc Food Science* DipHE Food Science* Dip HE (unnamed)* Cert HE (unnamed)* * available as fall back awards only	Full-time (3 years) Sandwich or study abroad (4 years)	DB64	Level 6

3 Awarding Institution/Body	Coventry University
4 Collaboration	None
5 Teaching Institution and Location of delivery	Coventry University campus.
6 Internal Approval/Review Dates	Date of latest review: April 2021 Date for next review: Academic year 2029/2030
7 Course Accredited by	Institute of Food Science and Technology (IFST)
8 Accreditation Date and Duration	5th February 2021 The accreditation will last until November 2025.
9 QAA Subject Benchmark Statement(s) and/or other external factors	**QAA subject Benchmark for Food Science is under**: Agriculture, Horticulture, Forestry, Food, Nutrition and Consumer Sciences (2019). https://www.qaa.ac.uk/docs/qaa/subject-benchmark-statements/subject-benchmark-statement-agriculture-horticulture-forestry-food-nutrition-and-consumer-sciences.pdf?sfvrsn=28f2c881_72 The course modules are mapped against the IFST (accrediting body) "Competencies for Food Graduate Careers" key elements. https://www.ifst.org/resources/competencies-food-graduate-careers
10 Date of Course Specification	June 2021
11 Course Director	Dr Daniel Amund

12 Outline and Educational Aims of the Course

The educational aims of the course are to provide students who wish to work in any part of the food chain process, including the areas of food and nutritional sciences, with the knowledge and skills to evaluate and analyse food in respect of safety, quality and nutritional value.

The course aims to:

1. Develop students' knowledge and understanding of the theory and practice of applied food science, which includes food chemistry and analysis, food microbiology and safety, food technology, quality control, research and development, and nutrition.
2. Develop students' knowledge and understanding of current practices in food processing, preservation and packaging that affect safety, quality, flavour and nutritional quality, including legislation, legal and regulatory frameworks.
3. Discuss current global issues and trends in food and nutrition such as food security and sustainability.
4. Equip students with knowledge of emerging technologies in food and nutritional sciences, including biotechnology.
5. Develop students' practical and research skills and competencies through laboratory and kitchen experimentation.
6. Develop students' competence in critically evaluating research evidence in food, nutrition and health topics.
7. Provide students with the opportunity for sustained independent study and the development of research skills in undertaking a final year project.
8. Provide opportunities for students to enhance their professional skills development, including team working and communication with diverse audiences, via reflection.

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13 Course Learning Outcomes

On successful completion of the course a student will be able to:

1. Demonstrate knowledge of the scientific basis of food and nutritional sciences.
2. Demonstrate an understanding of the scientific principles underpinning the transformation of raw food materials into products, including food preparation, food processing, chemistry, microbiology, nutritional qualities and new product development.
3. Critically analyse, interpret and synthesise information linked to contemporary food related issues and current global challenges.
4. Demonstrate the ability to work safely and competently in the kitchen and laboratory.
5. Analyse and present numerical data using appropriate statistical programmes and presentation techniques.
6. Communicate food related topics appropriately to a variety of audiences, using a range of formats and approaches, including digital media.
7. Design, plan, implement, analyse and report a research-based project, including ethical considerations.
8. Demonstrate skills such as time-management, initiative and creativity, organisational and knowledge transfer skills, and collaborative working.

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14 Course Structure, Modules, Credits and Progression and Award Requirements

The BSc (Hons) Food Science course is available as a 3-year full time course or a 4 year Sandwich option. Students who choose to take the 4-year course incorporate either a work experience placement or study year abroad (Enhancement Year) between years 2 and 3.

All modules are mandatory apart from those associated with the optional Sandwich/Enhancement year. Modules within the course, their status (whether mandatory or optional), the level of study, and their credit value are identified in the table below. The table also indicates how the modules relate to the course learning outcomes. The anticipated Semester delivery pattern is included but it should be noted that this is indicative only and may be subject to change.

BSc Food Science Course Structure

Credit level	Module Code	Title	Semester	Credit Value	Mandatory / Optional	Course Learning Outcomes
4	4002BMS	Introduction to Public Health	1	20	Mandatory	1,3,6,8
4	4004BMS	Skills for Food and Nutrition Sciences 1	1	20	Mandatory	1,3,4,5,6,8
4	4006BMS	Physiology and Biochemistry for Nutrition	1	20	Mandatory	1,3,6
4	4001BMS	Chemistry of Foods	2	20	Mandatory	1,3,4,5,6
4	4003BMS	Introduction to Food Law and Policy	2	20	Mandatory	3,6,8
4	4005BMS	Skills for Food and Nutrition Sciences 2	2	10	Mandatory	1,4,5,6,8
4	**Add+Vantage**		2	10	Mandatory	
5	5003BMS	Contemporary Skills for Food, Nutrition and Health	1	10	Mandatory	5,8
5	5004BMS	Nutrition across the Lifespan	1	20	Mandatory	1,3,6,8
5	5005BMS	Food Microbiology	1	20	Mandatory	1,2,,6
	5006BMS	Principles of Food Preparation	2	20	Mandatory	2,4,5,6,7,8
5	5007BMS	Food Properties and Material Sciences	2	20	Mandatory	1,3,4,5,6
5	5008BMS	Food Processing Technology	2	20	Mandatory	2,3,6,8
5	**Add+Vantage**		1	10	Mandatory	
5	5001BMS	Professional Experience Sandwich Year		0	Optional	
5	5002BMS	Enhancement Year		0	Optional	
6	6002BMS	Research Design for Food and Nutrition Sciences	1	10	Mandatory	1,6,7,8
6	6004BMS	Food Quality, Safety and Assurance	1	20	Mandatory	2,6,8
6	6007BMS	Product Design	1	20	Mandatory	2,3,4,6,8
6	6003BMS	Integrated Topics in Nutrition, Food and Public Health	2	20	Mandatory	3,6,8
6	6005BMS	Independent Project in Food and Nutrition Sciences	2	20	Mandatory	3,5,6,7,8
6	6008BMS	Food Biotechnology	2	20	Mandatory	3,6,8
6	**Add+Vantage**		1	10	Mandatory	

Modules are designed based on the academic content and competency criteria required for IFST accredited courses. They are informed by the subject specific knowledge, understanding and skills specified by the QAA Benchmark Statement.

Year 1 modules provide the key framework of skills and knowledge relevant to food sciences and nutrition. Students are supported to become confident, competent and safe in the laboratory and kitchen environments.

In Year 2, students will build on their knowledge of the food science and nutrition and will also investigate in more depth the food processing and preservation techniques and their influences on product quality, safety, organoleptic and nutritional characteristics. Students continue to extend their practical and research skills and competencies. Individual professional development activities enable students to identify strategies and approaches to enhance their own capabilities and to build their professional profile in preparation for successful placement application, and ultimately for careers after graduation.

On successful completion of Years 1 and 2, students may elect to apply for either a one-year work experience placement, or a year of study abroad. These opportunities offer highly valued opportunities to enhance learning and gain a competitive advantage in the workplace after graduation. Students taking this option will take an additional year to complete their degree. Students taking the work experience option enrol on 5001BMS (Professional Experience Placement) and those who opt for the study year abroad enrol on 5002BMS (Enhancement Year). These modules must be passed for this Sandwich year to be recognised. Work Experience placements are competitive and successful acceptance cannot be guaranteed. Our Talent Team offer support for students in the application process. Students should note that some work placements may require additional health and professional suitability checks including criminal record checking via DBS. If students are unable to meet the health and suitability requirements, then the choice of placement opportunities will be restricted.

Year 3 focusses on food quality, safety and assurance, food product development and food biotechnology, together with exploration of contemporary global issues in food and nutrition. Students also plan, implement and independently report a project in a discipline area of their choice, providing a capstone experience to the course.

Each year of the course also includes an Add+Vantage module. Further details of the Add+Vantage scheme are available at:

https://share.coventry.ac.uk/students/Add-vantage/Pages/NewHome.aspx

Progression to subsequent stages of the degree is subject to University Regulations, Mode E.

The criteria for awards and their classification follow the general academic regulations (Mode E) of the University.

For award of BSc (Hons) Food Science the project module 6005BMS must be included in the classification calculation.

The award cascade is as follows:

BSc (Hons) Food Science
↓
BSc. Food Science
↓
Diploma of Higher Education (DipHE) (named/un-named)
↓
Certificate of Higher Education (CertHE) (un-named)

BSc (Hons) Food Science
In order to be awarded a BSc Honours degree a student must pass all mandatory modules and have achieved a total of 360 credits. The standard University regulations for degree classification apply. For the BSc (Hons) Food Science course, the project module 6005BMS MUST be included in the calculation.

BSc Food Science (Unclassified)
A student who fails to meet the requirements for an Honours degree may be considered for the award of an unclassified degree in Food Science if he/she has achieved at least 300 credits and meets the minimum credit requirements at each level set out in the Academic Regulations

Diploma of Higher Education (DipHE)

For award of DipHE in Food Science, a student must pass all mandatory modules in Years 1 and 2 and have achieved a minimum of 240 credits.

A student who achieves at least 240 credits and meets the minimum credit requirements at each level set out in the Academic Regulations may be considered for the award of an un-named DipHE.

Certificate of Higher Education (CertHE)
A student who achieves at least 120 credits and meets the minimum credit requirements at each level set out in the Academic Regulations may be considered for the award of an un-named CertHE.

15 Criteria for Admission and Selection Procedure

UCAS entry profiles may be found by searching for the relevant course on the UCAS website, then clicking on 'Entry profile'.

Applicants should normally meet the entry requirements of the course as detailed on our University website:

https://www.coventry.ac.uk/study-at-coventry/course-search/

For admission to BSc (Hons) Food Science, candidates must normally possess:

- Five GCSEs at grade A*-C/ 9-4 including Mathematics, English Language and two Sciences, and
- Grades BBC from three full A levels including Biology or Chemistry or relevant science subject, or equivalent qualifications (e.g. BTEC).

For applicants whose first language is not English:

- This course requires IELTS 6.0 overall, with no component lower than 5.5. Pre-sessional English is available if required.

Non-standard applicants will be considered for entry to the course and admission will be at the discretion of the Course Director and the Admission Tutor.

Recognition for prior learning (RPL) or prior experiential learning (RPEL) may be granted for modules at the discretion of the Course Director providing that adequate evidence of learning is submitted by the student in accordance with University guidelines. RPL/RPEL will be limited to the maximum specified in University Regulations.

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16 Academic Regulations and Regulations of Assessment

This Course conforms to the standard University Academic Regulations Undergraduate Mode E.

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17 Indicators of Quality Enhancement

The Course is managed by the School of Life Sciences Board of Study of the Faculty of Health and Life Sciences.

The Progression and Awards Board (PAB) is responsible for considering the progress of all students and making awards in accordance with both the University and course-specific regulations.

The assurance of the quality of modules is the responsibility of the Boards of Study which contribute modules to the course.

External Examiners have the opportunity to moderate all assessment tasks and a sample of assessed work for each module. They will report annually on the course and/or constituent modules and their views are considered as part of the Course Quality Enhancement Monitoring (CQEM). Students are represented on the Student Voice channel, Board of Study and Faculty/School Board, all of which normally meet at least two or three times per year.

Student views are also sought through module and course evaluation questionnaires.

The following are key indicators of quality and standards:

- The course has been designed in accordance with the QAA Subject Benchmark statements (section 5) for Agriculture, Horticulture, Forestry, Food, Nutrition and Consumer Sciences (October 2019)
- The course has been mapped to the educational standards and competencies specified by Institute of Food Science and Technology (IFST) for accreditation of undergraduate degrees.
- The academic team are specialists within their subject discipline. Academic staff are encouraged to take a post-graduate qualification in higher education teaching to qualify as Associate Fellows, Fellows and Senior Fellows of the Higher Education Academy (HEA)
- Staff include registered nutritionists (RNutr) with the AfN and members of other professional bodies, e.g. IFST, The Nutrition Society.
- Staff are actively involved in research within the Faculty Research Centre for Sport, Exercise and Life Sciences (CSELS).
- The QAA's review of higher education undertaken in February 2015 confirmed that Coventry University meets UK expectations in:

- The setting and maintenance of the academic standards of its awards;
- The quality of student learning opportunities;
- The quality of the information about learning opportunities;
- The enhancement of student learning opportunities.

Coventry University has an impressive list of awards and accolades including:

- Top 15 for five years running in the Guardian University Guide (2016-2020)
- Awarded University of the Year for Student Experience (The Times and Sunday Times Good University Guide 2019)
- 1st for Overseas Experiences (based on student trips abroad - HESA 2016/17)
- 2nd for Teaching Excellence (Times Higher UK metrics ranking 2017)
- Gold for outstanding teaching and learning (Teaching Excellence Framework 2017)
- Top 5 UK Student City (QS Best Student Cities 2019)
- Overall five star QS Stars rating (QS Stars 2019) (includes 5 stars for teaching, employability, facilities and internationalisation)

The University has been rated:
12th for Food Science (The Times and Sunday Times Good University Guide, 2020)
7th for Food Science (Complete University Guide)

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18 Additional Information

Enrolled students have access to additional, key sources of information about the course and student support including,
Health and wellbeing - Spirituality and Faith Centre, Welfare, Disabilities, Counselling, Mental Health and the Medical Centre
Faculty/School Handbook
Student Handbook
Virtual Learning Environment
Module Information Directory
Maths and Statistics Support (SIGMA)
Centre for Academic Writing (CAW)
Library Support including designated Subject Librarian
Employability support services (Talent Team)
24 hour IT support
