

## Programme Specification

### BSc Food Science with Foundation

For students entering Foundation year in September 2022

UCAS Code: D611

UFFDSCWFY

**This document sets out key information about your Programme and forms part of your Terms and Conditions with the University of Reading.**

Awarding Institution	University of Reading
Teaching Institution	University of Reading
Length of Programme	4 years
Accreditation	Institute of Food Science and Technology

#### Programme information and content

The programme aims to provide you with a degree-level education from which graduates can enter a career in the food industry (or employment in other sectors of the food chain, or related scientific sectors) as scientists and to develop their capacity to undertake research into the science of foods.

Students will learn to integrate the scientific disciplines relevant to food and to apply and communicate scientific knowledge to meet the needs of industry and the consumer for the production and marketing of safe and quality foods. The Foundation Year forms Part 0 of this course, which provides you with the basic knowledge and essential foundation to succeed on our Food Science programme.

The Food Science programme aims to:

- Provide a programme of education which can enable its graduates to enter a career in the food industry as scientists capable of ensuring the production and marketing of safe and quality foods;
- Provide a broadly based scientific education whose graduates can also enter into employment in other sectors of the food chain or related scientific sectors where they can apply their scientific skills;
- Allow individuals to develop their capacity to undertake research into the science of foods;
- Provide undergraduates with opportunities to develop their inter-personal and communication skills;
- Enable graduates to meet the entry requirements of the Institute of Food Science and Technology (IFST).

Foundation year:	The Foundation Year provides you with the scientific background required to succeed on the subsequent years of the course. You will acquire a broad foundation in Chemistry (CH0CHE) and/or Biology (BI0BF1), and scientific Calculations (BI0MF1). Additionally, our Academic Skills module (IF0RAS) gives you all the skills necessary to excel at University life. The goal of Year 0 is to provide you with the
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	basic core knowledge required for your chosen pathway and the confidence to make a successful transition to Higher Education.
Part 1:	Introduces you to the foundations of the degree, with a strong focus on fundamental science modules such as physiology, chemistry and microbiology, alongside quantitative skills, an introduction to food science and awareness of the food chain and food industry. The modules in Part 1 ensure that you have sufficient knowledge to underpin your later studies.
Part 2:	Provides you with different aspects of food sciences, in particular food composition, processing, food microbiology and food quality. Moreover, an introduction to human nutrition will provide a better understanding of the link between food science, nutrition and health.
Placement/Study abroad year:	The placement year normally takes place between Parts 2 and 3 of this degree programme. It is an opportunity for you to apply your skills in a 'real-world' environment and gain invaluable experiences.
Part 3:	Gives you the opportunity to apply your knowledge to the development of a new food product and your research project (dissertation). You will also be able to deepen your knowledge and understanding of food chemistry, quality and safety.

### Module information

Each part comprises 120 credits, allocated across a range of compulsory and optional modules as shown below. Compulsory modules are listed.

#### Foundation modules:

Module	Name	Credits	Level
BI0MF1	Mathematics Foundation	20	0
IF0RAS	Foundation in Academic Skills	20	0

Students must complete IF0RAS, BI0MF1 and either CH0CHE or BI0BF1 in Part 0 of the programme. Students must select a further 40 credits of optional modules at Part 0 from a list provided by the School of Chemistry, Food and Pharmacy.

International Students take IF0ACA (Academic Skills), in place of IF0RAS (Foundation in Academic Skills), as IF0ACA is specifically targeted to the needs of international students.

#### Part 1 Modules:

Module	Name	Credits	Level
CH1FC3	Molecular Studies for the Life Sciences	10	4
FB1AG2	Farm to Fork	20	4
FB1BFN	Fundamental Biochemistry in Food and Nutrition	20	4
FB1EP2	Introduction to Food Processing and Engineering	20	4
FB1MF1	Food Microbiology	20	4
FB1PN	Introduction to Human Physiology and Nutrition	20	4

Students who have not obtained a minimum of a C grade in A- level Chemistry or passed module CH0CHE on the Foundation Year will be required to complete CH1FC1 (Fundamental Concepts in Chemistry).

Students not needing to select CH1FC1 must select a further 10 credits from a list of optional modules provided by the Department of Food & Nutritional Sciences.

**Part 2 Modules:**

Module	Name	Credits	Level
FB2C30	Composition, Properties and Analysis of Foods	30	5
FB2EFP	Food Processing	20	5
FB2FQS	Food Quality and Sensory Science	10	5
FB2MF1	Microbiology of Food Spoilage and Preservation	10	5
FB2MF2	Microbiological Hazards in Foods	10	5
FB2NS	Nutritional Science	20	5
FB2PYA	Industrial Training Preparation	0	5

Students must select a further 20 credits from a list of optional modules provided by the Department of Food & Nutritional Sciences.

**Modules during a placement year or study year (if applicable):**

Module	Name	Credits	Level
FB2PYB	Industrial Training Year	120	5

If you take a year-long placement or study abroad, Part 3 as described below may be subject to variation.

**Part 3 Modules:**

Module	Name	Credits	Level
FB3AFC	Advanced Food Chemistry	20	6
FB3AFQ	Advanced Food Quality, Safety and Sensory	20	6
FB3FPD	Food Product Development	20	6
FB3PFB	Research Project	40	6

Students must select a further 20 credits from a list of optional modules provided by the Department of Food & Nutritional Sciences.

**Optional modules:**

The optional modules available can vary from year to year. An indicative list of the range of optional modules for your Programme is set out in the Further Programme Information. Details of optional modules for each part, including any Additional Costs associated with the optional modules, will be made available to you prior to the beginning of the Part in which they are to be taken and you will be given an opportunity to express interest in the optional modules that you would like to take. Entry to optional modules will be at the discretion of the University and subject to availability and may be subject to pre-requisites,

such as completion of another module. Although the University tries to ensure you are able to take the optional modules in which you have expressed interest this cannot be guaranteed.

### **Additional costs of the programme**

During your programme of study you will incur some additional costs. For textbooks and similar learning resources, we recommend that you budget between £50 to £150 a year. Some books may be available second-hand, which will reduce costs. A range of resources to support your curriculum, including textbooks and electronic resources, are available through the library. Reading lists and module specific costs are listed on the individual module descriptions.

The estimates were calculated in 2021.

### **Placement opportunities**

You will be provided with the opportunity to undertake a credit-bearing placement as part of your Programme. This will form all or part of an optional module. You will be required to find and secure a placement opportunity, with the support of the University.

### **Teaching and learning delivery:**

You will be taught through seminars, lectures, workshops and practicals.

Total study hours for each Part of your programme will be 1200 hours. The contact hours for your programme will depend upon your module combination; an average for a typical set of modules on this programme is Part 0 - 283 hours, Part 1 - 504 hours, Part 2 - 432 hours, Part 3 - 276 hours. In addition to your scheduled contact hours, you will be expected to undertake guided independent study. Information about module contact hours and the amount of independent study which a student is normally expected to undertake for a module is indicated in the relevant module description.

### **Accreditation details**

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

### **Assessment**

The programme will be assessed through a combination of written examinations, coursework, oral examinations, practical examinations.

### **Progression**

The University-wide rules relating to 'threshold performance' as follows:

### **Part 0**

- (i) an average of at least 40% over all modules taken in Part 0; with
- (ii) no more than 40 credits of these modules with a mark below 35%
- (iii) at least 40% in the Academic Skills module

In order to progress from Part 0 to Part 1, a student must achieve a threshold performance; and

- (iv) At least 55% in each of two 40 credit modules (including at least one of: CH0CHE Chemistry or BI0BF1 Biology); and
- (v) an average of at least 40% in the remaining two modules (BI0MF1 and IF0RAS or IF0ACA)
- (vi) no module mark below 35%.

The achievement of a threshold performance at Part 0 qualifies a student for a Certificate of Completion if he or she leaves the University before completing the subsequent Part.

### **Part 1**

- (i) obtain an overall average of 40% over 120 credits taken in Part 1; and
- (ii) obtain a mark of at least 30% in individual modules amounting to at least 100 credits taken in Part 1.

In order to progress from Part 1 to Part 2, a student must achieve a threshold performance; and

- (iii) obtain at least 40% in Theme 1 (CH1FC3 and CH1FC1 where applicable); and
- (iv) obtain at least 40% in EACH module of Theme 3 (FB1MF1) and Theme 4 (FB1EP2)

The achievement of a threshold performance at Part 1 qualifies a student for a Certificate of Higher Education if they leave the University before completing the subsequent Part.

### **Part 2**

To gain a threshold performance at Part 2, a student shall normally be required to:

- (i) obtain a weighted average of 40% over 120 credits taken at Part 2; and
- (ii) obtain marks of at least 40% in individual modules amounting to at least 80 credits; and
- (iii) obtain marks of at least 30% in individual modules amounting to at least 120 credits, except that a mark below 30% may be condoned in no more than 20 credits of modules owned by the Department of Mathematics and Statistics.

In order to progress from Part 2 to Part 3 in the **3 year programme**, a student must achieve a threshold performance and

(iv) obtain at least 40% in EACH module of Theme 1 (FC2C30) and Theme 3 (FB2MF1, FB2MF2) and Theme 4 (FB2EFP) taken at Part 2.

In order to progress from Part 2 to Part 3 in the **4 year programme**, a student must achieve a threshold performance and obtain a pass in the professional/work placement or study abroad year. Students who fail the professional/placement year transfer to the non-placement year version of the programme.

The achievement of a threshold performance at Part 2 qualifies a student for a Diploma of Higher Education if they leave the University before completing the subsequent Part.

In order to achieve a BSc Honours degree students are required to achieve a mark of at least 30% in the final year project module FB3PFB.

### **Classification**

Bachelors' degrees

The University's honours classification scheme is based on the following:

Mark	Interpretation
70% - 100%	First class
60% - 69%	Upper Second class
50% - 59%	Lower Second class
40% - 49%	Third class
35% - 39%	Below Honours Standard
0% - 34%	Fail

The weighting of the Parts/Years in the calculation of the degree classification is:

*Three year programmes:*

Part 2: one-third

Part 3: two-thirds

*Four year programmes, including professional/ work placement or study abroad:*

Part 2: one-third

Placement/Study Abroad Year abroad not included in the classification

Part 3: two-thirds

**For further information about your Programme please refer to the Programme Handbook and the relevant module descriptions, which are available at <http://www.reading.ac.uk/module/>. The Programme Handbook and the relevant module descriptions do not form part of your Terms and Conditions with the University of Reading.**

BSc Food Science with Foundation for students entering Foundation year in session 2022/23  
20 March 2023

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