

## Programme Specification

**BSc Food Technology with Bio-processing (3 year)**

**For students entering Part 1 in September 2021**

**UCAS Code: D622**

**UFFDTECHBIO3**

**UFFDTBIO1**

**UFFDTBIO2**

**UFFDTBIO3IP**

**UFFDTECHBIO**

**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                            | 3 years  |
| Length of Programme with placement/year abroad | BSc Food Technology with Bio-Processing (students from Jiangnan University) - 3 years<br>BSc Food Technology with Bio-Processing (students from Henan University of Technology) - 3 years<br>BSc Food Technology with Bio-Processing (International Programme) - 3 years<br>BSc Food Technology with Bio-processing with Industrial Training - 4 years (UCAS Code: D621) |
| Accreditation                                  | Institute for Food Science and Technology  |

### **Programme information and content**

The programme aims to provide 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 technologists and to develop their capacity to undertake research into problems relating to the production and marketing of safe and quality foods. Students will learn to integrate the scientific disciplines relevant to food and to apply and communicate technological knowledge to meet the needs of industry and the consumer for the production and marketing of safe and quality foods.

The Food Technology with Bioprocessing programme aims to:

- Provide a programme of education which can enable its graduates to enter a career in the food industry as technologists capable of ensuring the production and marketing of safe and quality foods.
- Provide a broadly based technological education whose graduates can also enter into employment in other sectors of the food chain, or related technical sectors, where they can apply their technological skills.
- Allow individuals to develop their capacity to undertake research into problems relating to the production and marketing of safe and quality foods.
- Provide a course containing integrated periods of industrial training allowing students to experience and apply the skills developed during the course.

|                              |   |
|------------------------------|---|
|                              | <ul style="list-style-type: none"> <li>• Provide undergraduates with opportunities to develop their inter-personal and communication skills.</li> <li>• Enable graduates to meet the entry requirements of the Institute of Food Science and Technology (IFST).</li> </ul>  |
| Part 1:                      | Part 1 introduces you to the foundations of the degree, with a strong focus on fundamental science modules such as physiology, chemistry and microbiology, but also quantitative skills, an introduction to food science and awareness of the food chain and food industry. The modules in Part 1 ensure that students have sufficient knowledge to underpin their later studies. |
| Part 2:                      | Part 2 provides you with different aspects of food technology, in particular food composition, processing, food microbiology and food quality.  |
| Placement/Study abroad year: | The placement year normally takes place between Parts 2 and 3 of this degree programme. It is an opportunity for students to apply their skills in an ‘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 as well as sustainable processing.  |

### Module information

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

#### Part 1 Modules:

| Module | Name  | Credits | Level |
|--------|---|---------|-------|
| BI1S1  | Introductory Microbiology                       | 10      | 4     |
| 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     |
| FB1MB1 | Introduction to Food Microbiology               | 10      | 4     |
| FB1PN  | Introduction to Human Physiology and Nutrition  | 20      | 4     |

Students must select a further 10 credits from a list of optional modules provided by the Department of Food & Nutritional Sciences.

CH1FC1: Fundamental Concepts in Chemistry module is compulsory for students who have not obtained a minimum of a C grade in A-level Chemistry.

#### Part 2 Modules:

| Module | Name  | Credits | Level |
|--------|---|---------|-------|
| FB2C30 | Composition, Properties and Analysis of Foods | 30      | 5     |
| FB2EFP | Food Processing                               | 20      | 5     |

|        |  |    |   |
|--------|--|----|---|
| FB2EPR | Process Engineering Principles                 | 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 |
| 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 and Nutritional Sciences.

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

Students on the 4 year version of the programme will take one 120 credit module during their placement year.

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 |
|--------|---|---------|-------|
| FB3AFQ | Advanced Food Quality, Safety and Sensory | 20      | 6     |
| FB3FPD | Food Product Development                  | 20      | 6     |
| FB3PFB | Research Project                          | 40      | 6     |
| FB3SFP | Sustainable Food Processing               | 20      | 6     |

Students must select a further 20 credits from a list of optional modules provided by the Department of Food and 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 2020.

### **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 1 - 492 hours, Part 2 - 432 hours, Part 3 - 300 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 for Food Science and Technology

### **Assessment**

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

### **Progression**

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

#### *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 (CH1FC3 and CH1FC1 where applicable).

- (iv) obtain at least 40% in EACH module of Theme 3 (BS1S1, FB1MB1) 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 modules of Theme 1 (FB2C30) and Theme 4 (FB2EFP, FB2EPR) 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 Technology with Bio-processing (3 year) for students entering Part 1 in session 2021/22

3 August 2020

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