

## Programme Specification

### BSc Biochemistry with Foundation

For students entering Foundation year in September 2021

UFBIOCHWFY

**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	N/A

#### Programme information and content

The aim of the Biochemistry degree programme is to provide a sound education and training in biochemistry with a firm underpinning of Chemistry. Emphasis is placed on the student being able to choose, particularly in the final year, those aspects of biochemistry that the student finds most rewarding. Students will receive training and be expected to demonstrate competence in laboratory techniques in Biochemistry, the use of computers to access and process information and the use of statistical programmes for data analyses. Students will be expected to acquire individual and group communication skills in written work and in oral and poster presentations. The development of critical reading skills will be strongly encouraged.

Foundation year:	The Science 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, Biology and scientific Calculations. Additionally, our Academic Skills module gives you all the skills necessary to excel at University. The goal of Year 0 is to provide each student with basic core knowledge suitable for your chosen pathway and the confidence of transitioning to Higher Education.
Part 1:	Part 1 of our programme will provide the student with a broad foundation of core skills and knowledge through a number of introductory modules in a range of disciplines, with a focus on central biochemical and molecular concepts. Teaching will involve lectures for imparting core knowledge, small group teaching to develop key skills, and practical classes to develop laboratory, data handling and report writing skills.
Part 2:	Part 2 of our programme will explore basic principles of biochemistry in more depth and in varied contexts for example in genetics, organ biochemistry, proteins and cellular biology. Module choices will enable the student to begin to realise aspects of most interest.
Part 3:	Part 3 of our programme will allow for greater in-depth study of areas of interest to the student. Students will have wide range of projects and along with

60 credits of optional modules, this will allow students to specialise in areas of biochemistry most interesting to them. One third of the final year is comprised of an individual research project and two thirds of the final year will involve taught components. The project will allow for development of management skills and taught components should be chosen to complement the research project and reflect a preparation for a future career. Students wanting to enter a research career may choose a research project involving relevant training in practical laboratory skills whilst other students may wish to train in critical review of scientific data. Other students may wish a broader aspect to their final year and this is also possible due to the available range of projects and modules. Whatever the topic chosen, the research project will culminate in the presentation of a thesis which will allow for development of report writing and presentation skills.

### 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
BI0BF1	Foundation Programme: Biology	40	0
BI0MF1	Mathematics Foundation	20	0
CH0CHE	Chemistry	40	0
IF0RAS	Foundation in Academic Skills	20	0

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.

Students with adequate prior learning in subject areas which are compulsory in Part 0 may be eligible to apply for a Recognition of Prior Learning (RPL) exemption from a limited number of modules. Students with an approved RPL exemption will be permitted to take alternative optional modules to the same number of credits overall. Students will need to consult the Programme Director with regards to optional modules available and choice may be restricted by timetable constraints. Optional modules may include Psychology, Statistics and Information Systems and/or a Language

#### Part 1 Modules:

Module	Name	Credits	Level
BI1BAB2	Metabolic and Practical Biochemistry	20	4
BI1BEC1	Building Blocks of Life	20	4
BI1BF1	Laboratory and Study Skills for Biomedicine	10	4
BI1S1	Introductory Microbiology	10	4

Students must also select a minimum of 10 credits from the following:

Code	Title	Credits	Level
CH1OR2	Fundamentals of Organic Chemistry	10	4
CH1ORB	Organic Chemistry for Biologists	20	4
CH1PH2	Physical Processes for Biologists	10	4

Your remaining credits will be made up of optional modules from selected modules from the School of Biological Sciences and across the University, subject to Programme Advisor approval and timetabling constraints. Students also have the option to select a language module.

**Part 2 Modules:**

Module	Name	Credits	Level
BI2BC45	Cells and Immunity	20	5
BI2BE4	Pharmacology and Toxicology	10	5
BI2BL5	Protein Structure and Function	10	5
BI2BM45	Key Skills in Biomedicine 2	10	5
BI2BMG4	Molecular Genetics	20	5
BI2BPB5	Physiological Biochemistry	20	5
BI2BT5	Introduction to Bioinformatics and Computational Biology	10	5

Your remaining credits will be made up of optional modules from selected modules from the School of Biological Sciences and across the University, subject to Programme Advisor approval and timetabling constraints. Students also have the option to select a language module.

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

Students on the Professional Experience version of the programme will take one 120 credit module during their placement year. Students may be permitted to undertake a placement year between Part 2 and Part 3 of the programme. In such cases students will transfer to a 4-year programme. If you take the degree with Placement Year, you are required to undertake a compulsory placement as part of your Programme. You will be supported in finding this placement. The placement year should not normally be shorter than nine months full-time.

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
BI3BR7	Structural Proteomics	10	6
BI3IB2	Integrated Biochemistry	20	6
BI3RP3	Research Project	40	6

Students will also take either:

Module		Name	Credits	Level
BI3BA7	Existing	Medical Genetics	10	6
Or				
BI3BE8	Existing	Cardiovascular Disease	10	6

Your remaining credits will be made up of optional modules from selected modules from the School of Biological Sciences and across the University, subject to Programme Advisor approval and timetabling constraints.

### Optional modules:

The optional modules available can vary from year to year. An indicative list of the range of optional modules for your programme can be found online in the Course Catalogue. 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

You will require a laboratory coat which you can bring with you or purchase from the University when you arrive (£12). Participation in any residential field based optional modules offered, is subject to fees payable by the student. If you undertake a Placement Year, associated costs will vary according to the nature and location of the placement and/or the study abroad host institution, and individual travel and subsistence arrangements. Costs are indicative, but will vary according to module choice and are subject to inflation and other price fluctuations. The estimates were calculated in 2020.

### Placement opportunities

You may be provided with the opportunity to undertake a credit-bearing placement as part of your Programme. This will form all of an optional module. You will be required to find and secure a placement opportunity, with the support of the University. You may have the opportunity to undertake a Study Abroad/Placement year during your Programme. This is subject to you meeting academic conditions detailed in the Programme Handbook, including obtaining the relevant permissions from your School, and the availability of a suitable Study Abroad placement. If you undertake a Study Abroad placement, further arrangements will be discussed and agreed with you.

**Teaching and learning delivery:**

You will be taught through lectures, seminars/tutorials, laboratory and field practicals and supervised project work.

The contact hours for your Programme are dependent on module choice but will normally be approximately 300-330 hours in Part 1, 250-280 hours in Part 2 and 200 - 230 hours in Part 3. Information about module contact hours can be located in the relevant module description.

**Accreditation details**

N/A

**Assessment**

The programme will be assessed through a combination of written examinations and coursework, assessed via a range of methods.

**Progression**

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

**Part 0**

- (i) an overall average of at least 40% over all credit 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. (IFORAS Foundation in Academic Skills or IF0ACA Academic Skills)

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 (BIOBF1 Foundation Programme: Biology and CH0CHE Chemistry); and
- (v) an average of at least 40% in the remaining two modules; and
- (vi) at least 40% in the Academic Skills module (IFORAS Foundation in Academic Skills or IF0ACA Academic Skills).
- (vii) 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**

To gain a threshold performance at Part 1 and qualify for the CertHE, a student shall normally be required to achieve an overall average of 40% over 120 credits taken at Part 1 and a mark of at least 30% in individual modules amounting to not less than 100 credits. In order to progress from Part 1 to Part 2 a student shall normally be required to achieve a threshold performance at Part 1.

**Part 2**

To gain a threshold performance at Part 2 and qualify for the DipHE, a student shall normally be required to achieve:

- an overall average of 40% over 120 credits taken at Part 2: and
- marks of at least 40% in modules amounting to not less than 80 credits; and
- marks of at least 30% in individual modules amounting to not less than 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 a student shall normally be required to achieve a threshold performance at Part 2.

Part 2 contributes one third of the overall assessment and Part 3 the remaining two thirds.

In order to be eligible for Honours, students must gain an overall weighted average mark of 40%, at least 40% in modules amounting to 80 credits in Part 3, and must gain a mark of at least 40% in the Research Project module. For a Pass degree, candidates must have an average of at least 35%, and at least 35% in modules amounting to 80 credits in Part 3, and must gain a mark of at least 35% in the Research Project module. Placement Year/Year Abroad (or combination thereof) Students are required to pass their year out in order to progress on the programme which incorporates the placement year, study abroad year or combination thereof. Students who fail the placement year transfer to the non-placement year version of the programme.

**Classification**

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:

Part 2 one-third

Part 3 two-thirds

Programmes including placement year or study abroad:

Normally:

Part 2 one-third

Placement or Year Out - not included in classification

Part 3 two-thirds

(Where a student fails a placement year or study abroad year, which does not contribute to classification, they transfer to the three-year version of the programme).

**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 Biochemistry with Foundation for students entering Foundation year in session 2021/22  
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