

Programme Specification

BSc Biomedical Sciences with Foundation

For students entering Foundation year in September 2022

UFBIOMEDWFY

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 Biomedical Science

Programme information and content

The programme in Biomedical Sciences aims to provide students with the opportunity to study disease in humans by providing a fundamental background in molecular and cell Biology and Physiology, which is balanced with applied laboratory skills in Biochemistry, Microbiology, Physiology and Histology. The overall aims of the degree course in Biomedical Sciences are to provide a broad understanding of the biological basis of disease and concentrates on the interface between normal and abnormal biology. Emphasis is placed on sound understanding of Chemistry as a basis for the appreciation of the biological processes involved. Students will study the normal and pathological state at every level, from genes and enzymes through cells, tissues and whole animals. They will learn about the biology of pathogens and the interactions of these and other disease agents with the host.

During these studies, students will be exposed to a variety of information sources and techniques and be trained in various skills including those used in reasoning, argument and communication. Several transferable skills will be acquired, including the ability to design and execute experiments in the laboratory (including working in a team), access information, interpret data using statistics and computing, write essays, scientific papers and reports, and give oral and poster presentations.

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 Biology (BIOBF1) and scientific calculations. Additionally, our Key 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 teach you physiology, cell biology, biochemistry and microbiology. We will introduce you to the major diseases affecting mankind. You will gain practical experience in working in a laboratory, including experience of histology. There will be small group teaching of transferable and subject-specific skills, such as study skills, writing skills, mathematical skills, including statistics, computer literacy, and critical analysis

	of research and career management. If you do not have AS or A level Chemistry or an equivalent qualification, we will bring you up to AS level Chemistry.
Part 2:	In Part 2 our students will study Immunology, Molecular Genetics, Pharmacology, Toxicology and more cell biology. You will cover important infectious diseases. The diagnostic work of hospital pathology laboratories in terms of haematology, cytology and clinical biochemistry will be explored. Students will gain further experience of study, writing, mathematical, statistical, computer literacy, career skills and critical analysis. Additionally, they will gain skills and understanding relevant to Biomedicine, including practical skills, understanding of the social context of their subject and skills relevant to enhancing employability.
Part 3:	Our students in Part 3 will concentrate on the major causes of death in this country and worldwide, namely cardiovascular disease and cancer. They will also study medical genetics and neurobiology. Students will carry out a research project, which will be experimental, computer-based, a systematic review or a hypothesis driven literature review. In addition, students will be able to explore in-depth, specific areas of interest, through optional module selection.

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
IFORAS	Foundation in Academic Skills	20	0

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

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 Chemistry, Environment Ecology & Sustainability and Psychology.

Part 1 Modules:

Module	Name	Credits	Level
BI1AP12	Anatomy & Physiology	20	4
BI1BAC2	Bacteriology and Virology	10	4
BI1BEC1	Building Blocks of Life	20	4
BI1BF1	Laboratory and Study Skills for Biomedicine	10	4

BI1BM12	Key Skills in Biomedicine	10	4
BI1BP2	Pathology	20	4
BI1S1	Introductory Microbiology	10	4

Students must also take one option of the following:

BI1BAB2	Metabolic and Practical Biochemistry	20	4
Or			
BI1MB2	Metabolic Biochemistry	10	4

Students who did not take CH0CHE or do not have AS Chemistry or an equivalent qualification must take the following:

CH1FC1	Fundamentals Concepts in Chemistry 1	10	4
And			
BI1MB2	Metabolic Biochemistry	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 if their number of optional credits allows this option.

Part 2 Modules:

Module	Name	Credits	Level
BI2BC45	Cells and Immunity	20	5
BI2BCB5	Clinical Biomedicine	20	5
BI2BE4	Pharmacology and Toxicology	10	5
BI2BI45	Infectious Diseases	20	5
BI2BM45	Key Skills in Biomedicine 2	10	5
BI2BMG4	Molecular Genetics	20	5

The remaining 20 credits will be made up of an optional module from selected modules from the School of Biological Sciences or modules from elsewhere in the university

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

Students on the 5 year version of the programme will take one 120 credit module during their placement year. If you take the 5 year 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. If you take a year-long placement or study abroad, Part 3 as described below may be subject to variation.

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Part 3 Modules:

Module	Name	Credits	Level
BI3BA7	Medical Genetics	10	6
BI3BE8	Cardiovascular Disease	10	6
BI3BT78	Cancer and Cell Communication	20	6
BI3RP3	Research Project	40	6

Students will need to choose at least two 20 credit modules from the School of Biological Sciences that discusses human diseases and disease mechanisms (such as cancer, cardiovascular biology or neuroscience). The remaining 20 credits will be made up of an optional module from selected modules from the School of Biological 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 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 require a laboratory coat which you can bring with you or purchase from the University when you arrive (£12). 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 2021.

Placement opportunities

You may 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. 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 practicals and supervised project work.

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 -312 hours, Part 2 - 300 hours, Part 3 - 288 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

Institute of Biomedical Science

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%; and
- (iii) at least 40% in the Academic Skills module (IF0RAS or IF0ACA)

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 any specified modules; and
- (v) an average of at least 40% in the remaining two modules
- (vi) at least 40% in the Academic Skills module (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

To achieve a threshold performance at Part 1, a student will normally be required to:

(i) Obtain an overall average of 40% over 120 credits taken in Part 1;

(ii) Obtain a mark of at least 40% in individual modules amounting to not less than 80 credits taken in Part 1; and

(iii) Obtain marks of at least 30% in modules amounting to 120 credits.

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

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.

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 modules amounting to not less than 120 credits.

In order to progress from Part 2 to Part 3, a student shall normally be required to achieve a threshold performance at Part 2

AND

- obtain a mark of at least 40% in each of the compulsory modules BI2BE4, BI2BI45, BI2BM45, BI2BC45, BI2BMG4 and BI2BCB5

AND

- obtain marks of at least 40% in all individual summative assessments that contribute to compulsory part 2 modules.

Part 2 contributes one third of the overall assessment and Part 3 the remaining two thirds. In order to obtain a degree, students must gain an overall weighted average of at least 35% and achieve 80 credits in Part 3 with a mark of at least 35% including BI3RP3. In order to be eligible for Honours, students must gain an overall weighted average mark of at least 40% AND obtain a mark of at least 40% in each of the compulsory modules : BI3BA7; BI3BE8; BI3BT78 and BI3RP3

AND

obtain marks of at least 40% in all individual summative assessments that contribute to the compulsory part 3 modules. Honours degrees are accredited by the Institute of Biomedical Science (IBMS) but pass degrees are not.

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:

Three-year programmes

Part 2 one-third

Part 3 two-thirds

Four-year 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 Biomedical Sciences with Foundation for students entering Foundation year in session 2022/23

21 July 2023

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