Programme Specification

BSc Biomedical Science with Foundation **UCAS Code: C742**

For students entering Foundation year in September 2025 **UFBIOMEBFY**

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
Length of Programme with placement/year abroad	
Accreditation	Institute of Biomedical Science – Working towards accreditation – visit due October 2024 Royal Society of Biology
QAA Subject Benchmarking Group	QAA Subject Benchmark Statement – Biomedical Science and Biomedical Sciences

Programme information and content	
Biomedical Science is one of the fastest growing fields of study and is at the forefront of modern science, encompassing a wide range of rapidly evolving research fields, ultimately focusing on understanding how the human body functions in both health and disease. The overall aim of this multidisciplinary, research-led degree course is to provide a broad understanding of the biological basis of disease. You will study the healthy and pathological state of the human body at every level, from genes and enzymes through to cells, tissues and the whole body. You will gain a deep understanding of the underlying molecular, cellular, genetic, and biochemical pathways and be provided with the opportunity to explore, research and develop your understanding of various rapidly developing biomedical topics at advanced levels. These include cancer and cardiovascular biology, infectious diseases and neurological disorders; all areas that are increasingly recognised as major challenges of global health. Through practical experience, you will develop knowledge and applied laboratory skills on the scientific methods used in biomedical research and on the diagnostic tools employed in clinical settings to study and identify disease. During your studies, you will investigate existing and developing disease therapies and will be immersed in state-of-the-art biomedical research led by leading academic scientists who study major disease pathways. Graduates of the Biomedical Science programme will be prepared to embark on exciting careers in a wide range of employment opportunities, including medical or pharmaceutical research, pathology and diagnosis, clinical trials, data management, drug development, public health and infection control, scientific and medical writing and many more.	
Foundation year:	The Foundation Year will provide you with the scientific background required to succeed on the subsequent years of the course. You will acquire a broad foundation in Biology, Mathematics and Chemistry.

	Additionally, the Academic Skills module will give you the skills necessary to excel at university. The goal of Year 0 is to provide you with the basic core knowledge suitable for your chosen pathway and the confidence of transitioning to higher education.
Part 1:	You will acquire the core foundation knowledge on which the advanced biomedical subjects will build upon in your future studies. You will learn about the biochemical, molecular and cell biology basis of life, and will study the fundamentals of microbiology. You will be introduced to the anatomy and physiology of the human body and the major human pathologies affecting mankind. You will gain practical laboratory experience including performing basic laboratory and histological techniques. Additionally, you will develop essential transferable skills (such as study and writing skills, mathematical skills, statistical analysis, data handling/interpretation, communication, academic integrity and teamwork) through activities embedded in the core modules.
Part 2:	You will expand your understanding of the fundamental molecular and cell biology processes that underpin the normal function of cells and tissues. You will gain specific knowledge on core biomedical subjects, including medical genetics, haematology (covering the study, diagnosis and treatment of blood disorders), immunology (that considers the human defence system against pathogen attacks), clinical biochemistry and infectious diseases. You will continue to enhance your practical and transferrable skills, including your creativity, enterprise and commercial awareness, together with your employability skills.
Placement/Study abroad year:	Students may be permitted to transfer to a programme with Study Abroad / Placement Year.
Part 3:	The third year of the programme places strong emphasis on the application of gained knowledge and skills. You can choose to study in-depth biomedical subjects to the frontier of knowledge in areas such as cardiovascular biology, cancer, neurobiology, endocrinology, pathogenic bacteria/viruses, protein structure and bioinformatics. The highlight of the final year is the opportunity to work alongside an expert in the biomedical research field on a novel research project. This capstone experience will allow you to develop an advanced understanding of your chosen topic and apply the skills that you have acquired from your first and second year. This will allow you to further develop your personal and professional identity as a biomedical scientist.

Programme Learning Outcomes - BSc Biomedical Science with Foundation
During the course of the Programme, you will have the opportunity to develop a range of skills, knowledge and attributes (known as learning outcomes) For this programme, these are:

	Learning outcomes
1	Demonstrate deep understanding of the role of biomedical sciences in supporting the diagnosis and the treatment of disease across a range of scientific disciplines, recognizing current developments, their applications, and the philosophical and ethical issues involved.
2	Explain the structure and function of biological molecules and cells, tissues, and organs, and apply this knowledge to participation in experimental design development, diagnostic and therapeutic interventions.
3	Explain the structure and function of the human body in health and disease, and integrate knowledge of clinical pathology to the study of genetics, biochemistry, molecular and cellular mechanisms of disease, the pathogenic mechanisms of microorganisms, and the defences mechanisms of the human body.
4	Interpret, explain and evaluate scientific research data in areas of biomedicine, and explain the practical applications of these in diagnostics and research settings.
5	Recognise the contribution of biomedical sciences to debate and controversies, and how this knowledge and understanding forms the basis for informed concern about the quality and sustainability of health and well-being.
6	Effectively communicate subject-specific knowledge, concepts and research outputs to technical and non-technical audiences using a range of multimedia formats.
7	Analyse experimental and observational biological data using relevant statistical tests/analytical tools and interpret the results, recognising the limitation of data collection and statistical methodology.
8	Organise and manage workload to complete tasks and projects effectively, both independently and collaboratively as part of a team.
9	Search for, critically analyse, integrate, synthesise and evaluate scientific literature to draw conclusions, make hypotheses and suggest solutions.
10	Safely and competently use a range of practical laboratory and/or field skills and techniques to generate accurate records and robust datasets.
11	Use a creative, innovative and evidence-based approach to propose realistic solutions for complex biological and real-world problems in light of continued scientific advances.

You will be expected to engage in learning activities to achieve these Programme learning outcomes. Assessment of your modules will reflect these learning outcomes and test how far you have met the requirements for your degree.

To pass the Programme, you will be required to meet the progression or accreditation and award criteria set out below.

In addition to the learning outcomes stated above if you are on a placement or study abroad programme you will have the opportunity to develop the following learning outcome:

Additional Learning outcomes
N/A

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 will need to select 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
BI1AP3	Anatomy and Physiology	20	4
BI1CMP1	Cellular and Molecular Principles of Life	20	4
BI1FB2	Fundamentals of Biochemistry	20	4
BI1FM1	Fundamentals of Microbiology	20	4
BI1HP2	Human Pathology	20	4
BI1HRD2	Human Reproduction and Development in Health and Disease	20	4

Part 2 Modules:

Module	Name	Credits	Level
BI2AB1	Applied Biochemistry: from Disease to Diagnostics	20	5
BI2CM1	Advanced Studies in Cellular and Molecular Biology	20	5
BI2HI1	Haematology and Immunology	20	5
BI2ID2	Infectious Diseases	20	5
BI2MG2	Medical Genetics	20	5
BI2RP3	Research and Professional Skills	20	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
BI3RP3	Research Project	40	6
BI3VP1	Venoms and Poisons: from Pharmacology to Therapeutics	20	6

Students will need to choose 60 credits from disease related modules from a list provided by the School of Biological Sciences.

Placement opportunities

N/A

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.

Teaching and learning delivery:

You will be taught through lectures, seminars/tutorials, laboratory practical sessions and supervised project work, depending on the modules you choose.

The contact hours for your Programme are dependent on module choice. Information about module contact hours can be located in the relevant module description.

Elements of your programme will be delivered via digital technology.

The scheduled teaching and learning activity hours and amount of technology enhanced learning activity for your programme will depend upon your module combination. In addition, you will undertake some self-scheduled teaching and learning activities, designed by and/or involving staff, which give some flexibility for you to choose when to complete them. You will also be expected to undertake guided independent study. Information about module study hours including 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 – Working towards accreditation – visit due October 2024

Royal Society of Biology

Assessment

The programme will be assessed through a combination of written examinations, coursework (including class tests) and oral examinations. Further information is contained in the individual module descriptions.

Progression

Foundation Year

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

(i) obtain an overall weighted average of 50% over 120 credits taken in Part 0; and

(ii) obtain a mark of at least 40% in all individual modules.

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

(iii) achieve a module mark of at least 50% in Foundation Programme: Biology (BI0BF1).

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; and

(iv) achieve a mark of at least 40% in all compulsory modules (BI1CMP1, BI1FM1, BI1AP3, BI1HP2, BI1FB2, BI1HRD2); and

(v) marks of at least 40% in all individual summative assessments that contribute to the compulsory part 1 modules (BI1CMP1, BI1FM1, BI1AP3, BI1HP2, BI1FB2, BI1HRD2).

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.

Students who meet threshold requirements but who do not meet the accredited programme specific progression requirements (iv and v) may transfer to Part 2 of another programme if suitably qualified.

Transferring from a Joint Honours to a Single Honours programme

Students are able to transfer from a Joint Honours to a Single Honours programme in one of their joint subject areas at the end of Part 1, subject to fulfilling the Part 1 University Threshold Standard, achieving marks of at least 40% in at least 40 credits of modules in the

subject to which they wish to transfer, and fulfilling any programme-specific progression rules for the Part 1 Single Honours Programme to which they wish to transfer.

Students who transfer from a Joint Honours to a Single Honours programme may not have taken all of the Part 1 modules listed in the Single Honours Programme Specification. The modules which they have taken will be shown on their Diploma Supplement.

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

(i) Obtain a weighted average of 40% over 120 credits taken in Part 2; and
(ii) Obtain marks of at least 40% in individual modules amounting to at least 80 credits taken in Part 2; 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, a student must achieve a threshold performance; and

(iv) obtain a mark of at least 40% in each of the Part 2 compulsory modules (BI2CM1, BI2HI1, BI2RP3, BI2ID2, BI2MG2, BI2AB1); and

(v) obtain marks of at least 40% in all individual summative assessments that contribute to compulsory part 2 modules (BI2CM1, BI2HI1, BI2RP3, BI2ID2, BI2MG2, BI2AB1).

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.

Students who meet threshold requirements but who do not meet the accredited programme specific progression requirements (iv and v) may transfer to Part 3 of another programme if suitably qualified.

Professional/placement year

Students are required to pass the professional placement year/study abroad year in order to progress on the programme which incorporates the professional placement year/study abroad year. Students who fail the professional placement year/study abroad year transfer to the non-placement year version of the programme.

In order to be eligible for the BSc Biomedical Sciences, students must meet the requirements described in Section 17 of the Assessment Handbook Bachelor's (for cohorts entering in 2022/23 and onwards) (see, in particular, section 17.5); and

(i) must gain a mark of at least 40% in BI3RP3 and BI3VP1

(ii) AND obtain marks of at least 40% in all individual summative assessments that contribute to BI3RP3 and BI3VP1.

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

The classification method is given in detail in:

https://www.reading.ac.uk/cqsd/policies-procedures/assessmenthandbook

Bachelor's (for cohorts entering in 2022/23 and onwards) (see, in particular, section 17.5)

Additional costs of the programme

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 and may vary according to optional modules chosen and are subject to inflation and other price fluctuations. Estimates were calculated in 2025.

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 Science with Foundation for students entering Foundation year in session 2025/26
21 August 2025