

Programme Specification

MSc Biotechnology (full-time)

PFTZBIOTCHHM

For students entering in 2027/28

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	MSc Biotechnology (full-time) - 12 months
Accreditation	N/A
Programme Start Dates	September
QAA Subject Benchmarking Group	Biosciences

Programme information and content

This programme will provide you with the opportunity to develop your understanding of how the biotechnology industry produces new treatments and diagnostic tools for use in healthcare. You will learn the principles of key technologies, such as cell and gene based therapies, medical devices, bioinformatics, big data, artificial intelligence and machine learning in healthcare and drug discovery, and the use of genomics and multiomics technologies in precision medicine. During the programme, you will work with case studies from industry and apply your understanding of these technologies to solve real-world problems. You will also learn how the biotechnology industry operates from a business perspective, including topics such as venture capital and intellectual property, and how the drug development process operates from initial drug discovery through to clinical trials and regulatory approval. You will have the opportunity to apply your learning to a professional or research-based placement, further developing your expertise and ability to effectively contribute to the work of the multidisciplinary team.

Programme Learning Outcomes

-MSc Biotechnology (full-time)

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	Analyse current trends and emerging technologies in biotechnology and their application to new treatments and diagnostic tools for use in healthcare.
2	Evaluate and critically analyse scientific literature and research findings in biotechnology, demonstrating the ability to identify gaps in knowledge and propose innovative research directions.
3	Apply technical and computational principles and theories and research methods underlying biotechnology to real world problems

4	Apply knowledge of regulatory frameworks, quality control, and intellectual property rights to scenarios associated with the development and commercialisation of biotechnology products.
5	Apply business and entrepreneurship principles to scenarios associated with the development and management of biotechnology-related ventures.
6	Communicate effectively about complex biotechnological concepts and research findings to diverse audiences, including scientific experts and regulatory bodies.
7	Collaborate effectively as a member of interdisciplinary teams, demonstrating the ability to contribute expertise and work towards common goals in biotechnology research and development.
8	Evaluate the ethical, legal, and societal implications of medical biotechnology research and its applications

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.

Module information			
The programme comprises 180 credits, allocated across a range of compulsory and optional modules as shown below. Compulsory modules are listed.			
Compulsory modules			
Module	Name	Credits	Level
BIMAI2	AI and Big Data in Research and Healthcare	20	M
BIMCB12	Commercial Biotechnology 1 – The Business of Health	20	M
BIMCB22	Commercial Biotechnology 2 – Taking Drugs to Market	20	M
BIMCGT1	Cell and Gene Therapies	20	M
BIMMT1	Introduction to Medical Technologies	20	M
BIMPM1	Precision Medicine	20	M
You must select one of the following compulsory modules:			
Module	Name	Credits	Level
BIMPLA3	Professional experience placement	60	M
OR			
BIMPRO3	Research project	60	M
Part-time or flexible modular arrangements			

Placement opportunities
Students will have an opportunity to carry out a three-month, 60-credit placement with a biotech company, subject to satisfactory performance in interview. Placement opportunities

will be made available at the start of Semester 2, with interviews typically taking place before the end of that Semester.

Study abroad opportunities

N/A

Optional modules

N/A

Teaching and learning delivery

You will be taught primarily through a mixture of lectures, tutorials and seminars using case-studies provided by industry. Some modules may include group work.

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

N/A

Assessment

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

Progression

N/A

Classification

The University's taught postgraduate marks classification is as follows:

Mark Interpretation

70 - 100% Distinction
60 - 69% Merit
50 - 59% Good standard (Pass)

Failing categories:

40 - 49% Work below threshold standard
0 - 39% Unsatisfactory Work

For Masters Degree

The following conditions must be satisfied for the award of a Master's degree:

Award of a Master's degree

- (i) an overall weighted average of 50% or more over 180 credits
- (ii) a mark of 50% or more in at least 120 credits
- (iii) no credits with a mark below 40%
- (iv) a mark of 50% or more in BIMPLA3 or BIMPRO3

In addition to the threshold conditions for the award of a Master's degree, the following **further** conditions must be satisfied for a classification of Distinction or Merit:

Distinction

An overall weighted average of 70% or more over 180 credits

OR

an overall weighted average of 68% or more over 180 credits and marks of 70% in at least 90 credits

AND

Where the dissertation is included in the conditions for the award of a Master's degree, a mark of at least 60% in the in BIMPLA3 or BIMPRO3

AND

No marks below 40%.

Merit

An overall weighted average of 60% or more over 180 credits

OR

an overall average of 58% or more over 180 credits and marks of 60% in at least 90 credits

AND

No marks below 40%.

For Postgraduate Diploma

The following conditions must be satisfied for the award of a Postgraduate Diploma:

Award of a Postgraduate Diploma

- (i) an overall weighted average of 50% or more over 120 credits
- (ii) a mark of 50% or more in at least 80 credits
- (iii) no credits with a mark below 40%

In addition to the threshold conditions for the award of a Postgraduate Diploma, the following further conditions must be satisfied for a classification of Distinction or Merit:

Distinction

An overall weighted average of 70% or more over 120 credits

OR

an overall weighted average of 68% or more over 120 credits and marks of 70% in at least 60 credits

AND

No marks below 40%.

Merit

An overall weighted average of 60% or more over 120 credits

OR

an overall average of 58% or more over 120 credits and marks of 60% in at least 60 credits

AND

No marks below 40%.

For Postgraduate Certificate

The following conditions must be satisfied for the award of a Postgraduate Certificate:

Award of a Postgraduate Certificate

- (i) an overall weighted average of 50% or more over 60 credits
- (ii) No credits with a mark below 40%

Details of the classification method is given in detail in the [Assessment Handbook](#) under:

- Section 19: Awards: Postgraduate Master's, Postgraduate Diploma, Postgraduate Certificate

Please note that there may be a specific version for your year of entry.

Additional costs of the programme

Travel, accommodation and subsistence: If you choose to undertake a professional experience placement you may need to travel to the placement site which may incur additional travel costs to visit venues geographically further away.

Printing facilities are available on campus at approximately £0.05 per page.

Costs are indicative and may vary according to optional modules chosen and are subject to inflation and other price fluctuations. Estimates were calculated in 2026.

Students may consider purchasing a laptop to help support their learning. Information on recommended device specifications can be found on the [DTS Student Hub](#).

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.

MSc Biotechnology (full-time) for students entering in session 2027/28
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