

## Programme Specification

### MSci Medical Science

For students entering Part 1 in September 2022

UCAS Code: C753

UFMEDSCM

UFMEDSCMWY

**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	MSci Medical Science with Professional Experience - 5 years (UCAS Code: C754)
Accreditation	N/A

### Programme information and content

The MSci Medical Science programme is an integrated and advanced course designed to provide you with a thorough understanding of the biomedical sciences and their applications in healthcare. This programme will combine undergraduate and postgraduate study to deliver a flexible and comprehensive curriculum that covers the fundamental principles of human biology, disease mechanisms, clinical medicine and medical research. Throughout this programme, you will delve into subjects such as human anatomy, physiology, pathology and genetics, gaining a deep understanding of how the human body functions in health and disease. You will explore the latest advancements in medical science, including emerging technologies and treatments, and learn how to apply this knowledge to address current and future healthcare challenges. A strong emphasis on research and practical experience is the hallmark of the MSci Medical Science programme. You will engage in hands-on laboratory work, utilising state-of-the-art equipment and techniques to conduct experiments and investigations. In the final year, you will undertake a significant, independent research project, working alongside experienced academics on cutting-edge medical research that can contribute to the advancements in the field. Aside from research, you will have opportunity to develop your professional and employability skills by building a skill portfolio, participate in placements and attend employer-led sessions. Graduates from this programme will be highly competitive in the job market, equipped with advanced knowledge and skills that are highly valued by employers and are well-positioned for further academic and professional advancement (especially in medical research, healthcare, pharmaceuticals and biotechnology).

Part 1:	Students are introduced to core concepts of medical science, and to key experimental techniques to allow development of skills to collect and interpret clinical and scientific data. You are taught using a variety of teaching and assessment methods that enable you to develop independent and reflective learning skills. The year is made up of a range of 10 and 20 credit modules that provide you with core scientific knowledge whilst also introducing you to the skills and attitudes appropriate for medical science
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	undergraduates. You will be able to specialise in one of four pathways depending on your interests. You will also learn with and from other students doing different healthcare degree programmes.
Part 2:	You will build on your knowledge foundation of Part 1 as your medical science knowledge is developed in a way that encourages you to further your basic knowledge and skills base. The year is made up of a range of 10 and 20 credit modules which will prepare you for the opportunity to spend a year working in industry and putting your knowledge into practice. You will be able to develop your specialised knowledge from the Part 1 pathway and choose a second specialised pathway if you wish.
Placement/Study abroad year:	Between the second and third year of the programme there is an optional professional experience year which will significantly enhance employability.
Part 3:	You will perform an extended laboratory-based or data analysis project which will develop practical skills sought by employers. You will also undertake modules on cutting edge areas built around areas of staff research expertise.
Part 4:	In the fourth year of the programme you will gain advanced scientific and technical skills to solve complex research questions. You will undertake a 80-credit research-intensive project over a period of five months. This substantial research project will provide you with the opportunity to independently plan, execute, analyse and communicate a research project in a specialised area of medical research. You will develop valuable transferable skills that are highly desirable for employers, offering you excellent preparation for postgraduate research or a wide variety of future careers.

### 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
BI1AP12	Anatomy & Physiology	20	4
BI1BEC1	Building Blocks of Life	20	4
BI1BM12	Key Skills in Biomedicine	10	4
BI1BP2	Pathology	20	4
BI1S1	Introductory Microbiology	10	4
PM1MPAS1	Clinical and Metabolic Biochemistry	10	4
PM1PCOL1	Principles of Drug Action	10	4

Please note that for any students who intend to pursue graduate-entry Medicine after completing Medical Science, Key Skills in Biomedicine may be substituted for PM1MPAS2 – Professional Skills for Healthcare A

Students may wish to transfer to the MPAS Physician Associate programme at the end of Part 1. However, this will depend on availability of places, completion of required modules and performance. Any requests for transfer will be at the discretion of the MPAS programme director.

### Optional modules

Students will choose further modules, to achieve a total of 120 credits. 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 Director approval.

### Part 2 Modules:

Module	Name	Credits	Level
BI2AP12	Anatomy & Physiology 2	30	5
BI2BCB5	Clinical Biomedicine	20	5
BI2BM45	Key Skills in Biomedicine 2	10	5
PM2PCOL1	Molecular Drug Targets	10	5

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 Director approval and timetabling constraints.

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

Module	Name	Credits	Level
BI2PEX	Professional Experience	120	5

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 5-year programme. 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
BI3DIR1	Diagnostic Imaging and Radiotherapy for Cancer	20	6
BI3RP3	Research Project	40	6

The remaining 60 credits will be made up of optional modules from selected modules from the School of Biological Sciences or modules from an approved list, subject to timetabling constraints.

**Part 4 modules:**

Module	Name	Credits	Level
BI4APS1	Critical Analysis and Problem Solving	20	7
BI4ARP	Advanced Research Project	80	7
BI4PLE1	Project Planning, Laboratory Skills and Experimental Design	20	7

**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**

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 2023.

**Placement opportunities****Placements:**

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

**Study Abroad:**

You may be provided with the opportunity to undertake a Study Abroad placement 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 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**

N/A

### **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**

#### ***Part 1***

- i. Obtain an overall weighted average of 40% in 120 credits
- 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. 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 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:

- (iv) a threshold performance at Part 2; and
- (v) achieve an overall average of 50% over 120 credits taken in Part 2 (of which not less than 100 credits should normally be at level 5 or above).

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.

#### *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.

#### **Part 3**

To achieve a threshold performance at Part 3, a student shall normally be required to:

- (i) achieve an average of 40% over 120 credits taken in Part 3 and
- (ii) obtain a mark of at least 40% in individual modules amounting to not less than 80 credits taken in Part 3

In order to progress from Part 3 to Part 4, a student must achieve a threshold performance; and (i) a mark of at least 40% in BI3RP3;

Students who do not meet the requirements to progress to Part 4, but who:

- (i) Meet the requirements described in Section 17 of the Assessment Handbook Bachelor's (see, in particular, section 17.5); and
- (ii) gain a mark of at least 40% in BI3RP3.

Will be eligible for the BSc Medical Science. The classification for this exit award will be based upon an overall weighted average ratio of 1:2 (Part 2: Part 3).

## 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:

Integrated Masters Programmes (MEng, MMath, MChem etc.)

Part 2: 20%

Placement/Study Abroad Year not included in the classification

Part 3: 40%

Part 4: 40%

The classification method is given in detail in Section 18 of the Assessment Handbook (see, in particular, section 18.5).

Students who do not meet the above Part 4 requirements for obtaining the MSci Medical Science degree but who have achieved all previous progression requirements will be eligible for the award of BSc Medical Science. The classification for this exit award will be based upon an overall weighted average ratio of 1:2 (Part 2: Part 3).

**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.**

MSci Medical Science for students entering Part 1 in session 2022/23

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