

Programme Specification

BSc Pharmacology with Foundation

For students entering Foundation year in September 2023

UCAS Code: B212

UFPHMLGYFY

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	No accreditation currently

Programme information and content

The programme aims to produce graduates who have the knowledge, skills and professional behaviours to work as pharmacologists within drug discovery in the pharmaceutical industry or life sciences- related industries, universities or medical charities. Graduates will be prepared for further higher education, postgraduate courses and academia and have the personal and intellectual attributes necessary for life-long professional development. Such graduates will:

- possess core pharmacology knowledge, skills and appropriate attitudes
- have knowledge and understanding of related disciplines including life sciences e.g. molecular biology, physiology; relevant mathematics; the basics of medicinal chemistry; and how related disciplines can yield insights in pharmacology and vice versa.
- be innovative and adaptive graduates who can respond to the challenge of a changing global scientific landscape and develop the skills for lifelong learning e.g. independence, time management, organisation and planning, initiative, knowledge transfer; the ability to self-assess performance; an understanding of how to evaluate risk

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 level study. The goal of Year 0 is to provide each student with basic core knowledge suitable for your chosen pathway and the confidence to transition to Higher Education.
Part 1:	In Part 1 you will be introduced to core concepts of science, and to key experimental techniques to allow development of skills to collect and interpret clinical and scientific data. You will be 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 pharmacology undergraduates, including mathematical knowledge that underpins today's science. You will also learn with and from other students doing different healthcare degree programmes.
Part 2:	In Part 2 you will build on your learning from Part 1 as your pharmacology 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 modules which will prepare you for the opportunity to spend a year working in industry and putting your knowledge into practice.
Placement/Study abroad year:	Between the second and third year of the programme there is an optional industrial year, which provides students with the opportunity to develop their graduate employability skills. Completion of an industrial year will qualify students for BSc Pharmacology with a Year in Industry award. Industrial partners will be sought from stakeholders who will input industrial content to the degree programme.
Part 3:	You will perform an extended laboratory-based or data analysis project which will develop practical skills sought by pharmaceutical, and life sciences-related, industry, some of which students can develop from their industrial placement. You will also have access to optional modules on cutting edge areas built around areas of staff research expertise. You will learn about societal aspects of pharmacology and develop core attributes and attitudes that will support a research-focussed career.

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

All modules at Part 0 are compulsory

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.

Optional modules may, for example, include Psychology, Statistics and Information Systems and/or a Language.

Students who complete PMOPHS Foundation in Pharmaceutical and Health Sciences instead of BI0MF1 will be eligible to transfer on to the BSc Pharmacology programmes and will be considered on a case-by-case basis.

Part 1 Modules:

Module	Name	Credits	Level
BI1AP12	Anatomy & Physiology	20	4
BI1BEC1	Building Blocks of Life	20	4
BI1BP2	Pathology	20	4
BI1S1	Introductory Microbiology	10	4
PM1MPAS1	Clinical and Metabolic Biochemistry	10	4
PM1PCOL1	Principles of Drug Action	10	4
PM1PCOL2	Key Skills for Pharmacology	10	4
PM1PCOL3	Mathematics & Statistics for Pharmacology	20	4

Part 2 Modules:

Module	Name	Credits	Level
BI2AP12	Anatomy & Physiology 2	30	5
BI2BCB5	Clinical Biomedicine	20	5
PM2MPAS2	Medicines in Health Care	20	5
PM2PCOL1	Molecular Drug Targets	10	5
PM2PCOL2	Drug Design and Delivery	20	5
PM2PCOL3	Mathematical Modelling for Pharmacology	20	5

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

Module	Name	Credits	Level
PM2PCOLIND	Industrial Placement	120	5

Students on the 5 year version of the programme will take one 120 credit module (PM2PCOLIND) during their Work Experience or Study Abroad year.

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
PM3PCOL1	Research Project	60	6
PM3PCOL2	Societal Impact of Pharmacology	10	6
PM3PCOL3	Clinical Pharmacology & Toxicology	30	6

Students will choose 20 credits of optional modules in Part 3.

Optional modules:

The optional modules available can vary from year to year. An indicative list of the range of optional modules for your Programme is set out in the Further Programme Information. 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

- 1) Required text books: A wide variety of text books is available from the library, many as e-books. Students are advised to purchase own copies of some core texts at varying costs.
- 2) Specialist equipment or materials: A lab coat will cost approximately £10.
- 3) Printing facilities are available on campus at approximately £0.05 per page
- 4) Travel, accommodation and subsistence: Students may need to travel if they visit venues geographically further away from University (when significantly further away, the programme currently supports travel costs by reimbursements).

Costs are indicative and are subject to inflation and other price fluctuations. The estimates were calculated in 2022.

Placement opportunities

Students will undertake experiential learning during their studies and will have the opportunity to complete an industrial placement year in the pharmaceutical or life science-related environment. Study abroad may be available for students on this programme.

Teaching and learning delivery:

Teaching and learning are delivered in a variety of ways, including interactive lectures, practical skills workshops, case-based learning and small group work, laboratory-based practical and computer-aided practical sessions, and seminars.

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 approximately 270 hours in Part 0, 400 hours in Part 1 and 2, and 650 hours/year for Part 3. 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

The programme is not accredited; however, the education and training of pharmacologists is currently overseen by the Royal Society of Biology.

Assessment

Assessment methods used will be according to those stated in the module descriptors to align to the learning outcomes. This means the programme is assessed through a combination of written examinations, coursework, oral examinations, and practical examinations.

Progression requirements

University Threshold Performance Requirements

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

Part 0

- i. an average of at least 40% over all 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

BSc Pharmacology with Foundation specific progression requirements

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

- i. an overall average of at least 60% over all credit modules taken in Part 0 ;
- ii. a mark of at least 60% in CH0CHE Chemistry
- iii. a mark of at least 60% in BI0BF1 Biology; and
- iv. successful completion of specified coursework and/or examination components of relevant modules, as described in the module descriptions; and
- v. no module mark below 40% in the remaining two modules.

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

(i) achieve an overall average of 40% over 120 credits taken in Part 1, where all the credits are at Level 4 or above; and

(ii) achieve a mark of at least 30% in individual modules amounting to not less than 100 credits taken in Part 1.

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

(iii) successful completion of specified coursework and /or examination components of relevant modules, as described in the module descriptions.

Students who have failed or are not qualified to progress to Part 2 are permitted one re-sit examination in each module (or failed required coursework element of a module) in which they fail to meet the progression requirements. The mark used for the purposes of progression will be the higher of the mark obtained in the original examination and the mark obtained in the re-examination.

Students who do not meet the above requirement but gain a University threshold performance at Part 1 may be eligible to transfer to another programme or to leave with a CertHE.

Part 2

University Threshold Performance Requirements

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

(i) achieve an overall average of 40% over 120 credits taken at Part 2; and

(ii) achieve a mark of at least 40% in 80 credits taken in Part 2; and

(iii) achieve a mark of at least 30% in 120 credits taken in part 2, 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 of the **4 year programme**, a student must achieve a threshold performance and:

(iv) successful completion of specified coursework and / or examination components of relevant modules, as described in the module descriptions.

Students who have failed or are not qualified to progress to Part 3 are permitted one re-sit examination in each module (or failed required coursework element of a module) in which they fail to meet the progression requirements. The mark used for the purpose of progression will be the higher of the mark obtained in the original examination and the mark obtained in the re-examination.

Students who re-sit examinations at Part 2 and meet the BSc Pharmacology progression criteria will have their marks in those modules capped at 40% for degree classification purposes in accordance with the University regulations.

In order to progress from Part 2 to Part 3 in the **5 year programme**, a student must achieve a threshold performance and;

(iv) successful completion of specified coursework and / or examination components of relevant modules, as described in the module descriptions; and

(v) obtain a pass in the professional/work placement or study abroad year. Students who fail the professional/placement year transfer to the non-placement year version of the programme.

Students who do not meet the above requirements for progression to Part 3 but gain a threshold performance may be eligible to transfer to another programme or leave with a DipHE.

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% - 39% 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 professional/work placement or study abroad:

Part 2: one-third

Placement/Study Abroad Year abroad not included in the classification

Part 3: two-thirds

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 Pharmacology with Foundation for students entering Foundation year in session 2023/24

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