Programme Specification
BSc Pharmaceutical Science
For students entering Part 1 in September 2019 **UFPHARMB**

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	3 years
Length of Programme with placement/year abroad	
Accreditation	Not applicable

Programme information and content	
The programme aims to provide you with a modern, innovative and integrated Bachelor of Science (BSc) degree-level education in Pharmaceutical Science. The BSc Pharmaceutical Science will teach you about the safe manufacture, distribution and use of medicinal products, and will encompass detailed studies of all aspects of drug action, design, formulation and use. Thus you will be trained in aspects of chemistry, biology, therapeutics, statistics, psychology and law, that impact on pharmaceutical science. The programme provides the opportunity to observe the roles of pharmacists and other health-professionals providing patient centred care through placements, inter-professional learning and patient interactions. The programme supports your development as an independent learner with strong knowledge of medicinal product design, manufacture, delivery, distribution and clinical use. Reading graduates will be well placed to pursue careers in a range of sectors, including the pharmaceutical industry.	
Part 1:	Introduces you to key concepts and is taught in broad discipline themes, where pharamceutical science concepts are described, developed and explicitly linked and integrated. During Part 1, we focus on developing your learning skills; our assessment is largely diagnostic and formative as we encourage you to reflect and take responsibility for your own learning. The year is made up of three interlinked modules that will provide you with the core biological and chemical knowledge and skills that form the foundation of the degree programme. The year includes a number of laboratory, workshop and tutorial classes that allow you to develop your pharmaceutical science skills, each providing you with appropriate feedback and opportunities for reflection. You will also be required to undertake two introductory placement visits to gain an insight into the pharmacy workplace, and interprofessional learning activities, through which you will start to learn about how health professionals work as part of a multidisciplinary team. You will begin to put together a Personal & Academic Development Portfolio, which you will build upon throughout your studies to demonstrate your engagement with the programme and your growth as a reflective learner.

Part 2:	Provides you with an integrated approach to teaching and assessment, whilst also developing core scientific skills needed to be able to appreciate how science impacts on the development and use of medicinal products. You will gain a full understanding of how to use your scientific knowledge to support and promote health in patients and the public, within an industrial and clinical context. In Part 2, there is a focus on the therapeutic areas of infections and infection control, and renal, gastrointestinal, cardiovascular and respiratory disease; the normal structure of these systems, pathology of diseases affecting them and how they are managed therapeutically. You will learn about drug discovery, and how the chemical structure of a drug affects its stability and activity. You will be taught about the safe handling of materials, manufacturing methods (including aseptic preparation) and quality assurance. You will further your knowledge of drug delivery and formulation, with a focus on how drugs are formulated for delivery through the gastrointestinal tract, and the core concepts of pharmacology, toxicology and health-related statistics. You will build upon your knowledge and skills relating to medicines use, for example, safe use of medicinal products, medicines-related legislation and community and hospital pharmacy services. During Part 2, you will have the opportunity to undertake placement learning in community pharmacy and attend hospital pharmacy visits, in addition to engaging with interprofessional and patient-focussed learning activities. These will feed into your PAD portfolio, which you will continue to develop throughout the year, in preparation for the assessment in part 3.
Placement/Study abroad year:	
Part 3:	Gives you the opportunity to further develop your knowledge and skills relating to scientific and clinical aspects of therapeutics and pharmaceutical science. Therapeutic areas covered in this year include: immunology and infections, dermatology, men's & women's health, endocrinology, musculoskeletal disorders, the central and peripheral nervous systems and cancer. Each topic includes aspects of physiology, pathology, disease management and prevention, patient management and promoting public health. You will build upon your knowledge of medicines design and delivery, considering a range of different routes of administration. During your third year you will have the opportunity to attend hospital pharmacy visits and undertake placement learning in either a community or hospital pharmacy setting, in addition to engaging with interprofessional and patient-focussed learning activities. Your PAD portfolio will be assessed within this year.

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
PM1A	Fundamentals of Physiology	50	4
PM1B	Medicines Discovery, Design, Development and Delivery	50	4
PM1C	Introduction to Professionalism and Practice	20	4

All modules at Part 1 of the programme are compulsory.

Part 2 Modules:

Module	Name	Credits
PM2A2	Therapeutics and medicines optimisation A2: Molecules and Medicines	30
PM2B	Therapeutics and Medicines Optimisation B: A Journey Through the GI Tract	35
PM2C2	Therapeutics and medicines optimisation C2: Therapeutics and Patient care	35
PM2D	Delivering Pharmacy Services	20

All modules at Part 2 of the programme are compulsory.

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
PM3A	Therapeutics and Medicines Optimisation D	40	6
PM3B	Therapeutics and Medicines Optimisation E	40	6
PM3C	Delivering Pharmacy Services 2	40	6

All modules at Part 3 of the programme are compulsory.

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

During your programme of study you will incur some additional costs.

The core textbooks, which most students normally purchase, cost approximately £30 each when bought new, and there may be other books/resources which you would find convenient to buy. Some books may be available second-hand, and this will reduce costs incurred. A range of resources to support your curriculum, including textbooks and electronic resources, are available through the University library. Reading lists and module specific costs are listed on the individual module descriptions.

Printing and photocopying facilities are available on campus at a cost of £0.05 per page. Costs will be, on average, £150 per year.

You will also be required to have a lab coat for certain practical classes. These can be purchased for a cost of £10.

As part of ensuring the safety of students, patients and the public, you will be required to undergo police (Disclosure & Barring Service) and health checks. The initial DBS check costs approximately £51.20. The health check is carried out free of charge, but you will be required to pay for any vaccinations that you may need.

You will have the opportunity to complete a series of placements during your programme, for which you will incur travel costs.

Any students needing to resit an assessment during their studies will be required to pay a resit fee. The cost of this will depend on the number of credits associated with the relevant module. Further information can be found on the examinations office website.

Costs are indicative and may vary according to optional modules chosen and are subject to inflation and other price fluctuations.

The estimates were calculated in 2018.

Placement opportunities

You will be provided with the opportunity to undertake credit-bearing placements as part of your Programme. You will also be encouraged to gain work experience beyond that provided by the university. The university will provide advice and support in achieving this.

Teaching and learning delivery:

You will be taught through lectures, seminars, tutorials, practicals and workshops. You will also undertake directed and self-directed study to supplement and enhance your learning from the taught sessions. There will be an expectation that you will attend all taught sessions and attendance will be monitored. You will undertake a series of placements and visits to community and hospital healthcare organisations and will also take part in

interprofessional learning activities, which will develop your understanding of pharmaceutical science and the roles of health professionals within multidisciplinary clinical teams.

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 - 408 hours, Part 2 - 444 hours, Part 3 - 384 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

As part of ensuring the safety of students, patients and the public, you will be required to undergo police (Disclosure & Barring Service) and health checks. This will be completed as part of the admissions process and will be maintained throughout the programme as an annual update and declaration. Students are required to inform the School of Pharmacy of any change in circumstances that may affect their ability, or suitability, to continue their studies. Students are also expected to maintain behaviours associated with a healthcare professional and must abide by University regulations. Deviation from these standards may lead to the instigation of University Academic Misconduct processes.

Assessment

The programme will be assessed through a combination of written examinations, coursework, oral examinations, practical examinations.

Progression

University Threshold Performance Requirements

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

Part 1
(i) obtain an overall average of 40% over 120 credits taken in Part 1; and
(ii) obtain a mark of at least 30% in individual modules amounting to at least 100 credits taken in Part 1.

MPharm/BSc Pharmaceutical Science specific progression requirements

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

(iii) an overall weighted average of 40% over 120 credits; and
(iv) a mark of at least 40% in individual modules and at least 40% in each individual module written examination; and

(v) 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.

For the compulsory coursework element of Part 1 (the pharmaceutical calculations assessment), students will be permitted 3 attempts (named attempt 1A, 1B and 2) to demonstrate competence, as described in the module description.
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) obtain a weighted average of 40% over 120 credits taken at Part 2; and
(ii) obtain marks of at least 40% in individual modules amounting to at least 80 credits; 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.

MPharm/BSc Pharmaceutical Science specific progression requirements

In order to progress from Part 2 to Part 3, a student must achieve a threshold performance and:

iv) an overall weighted average of at least 40% over 120 credits; and
(v) a mark of at least 40% in individual modules and at least 40% in each individual module written examination; and
(vi) 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 MPharm/BSc progression criteria will have their marks in those modules capped at 40% for degree classification purposes in accordance with the University regulations.
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.

Part 3

In order to progress from Part 3 to Part 4, a student shall normally be required to achieve the following in Part 3:

(i) an overall weighted average of at least 40% over 120 credits; and
(ii) a mark of at least 40% in individual modules; and
(iii) successful completion of specified coursework and examinations of relevant modules, as described in the module descriptions.

Students who have failed or are not qualified to progress to Part 4 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 re-sit examinations at Part 3 and meet the MPharm progression criteria will have their marks in those modules capped at 40% for degree classification purposes in accordance with the University regulations.

For the required coursework element of Part 3 (Prescription Assessment & Medicines Supply assessment), students will be permitted 3 attempts (named attempt 1A, 1B and 2) to demonstrate competence, as described in the module description. The mark used for progression purposes will be the higher of the mark obtained in attempt 1A and the mark obtained in attempt 1B and 2 (as appropriate). For classification purposes, the mark for attempt 1B will be capped at the pass mark for the assessment. Students passing at attempt 2 will have their module mark capped at 40% for degree classification purposes, in accordance with University regulations.

Students who do not meet the above requirements for progression to Part 4 of the MPharm but gain a threshold performance will be eligible for the award of BSc Pharmaceutical Science.

The classification for this exit award will be based 33% upon the overall weighted average in Part 2 and 67% the overall weighted average in Part 3.

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

(i) an overall weighted average of 40% over 120 credits taken in Part 3; and
(ii) a mark of at least 30% in individual modules amounting to not less than 100 credits.

The GPhC does not accept Aegrotat degrees for entry to the Registration Examinations for pharmacists.

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

Integrated Masters Programmes (e.g. MEng, MMath, MChem, MPharm, etc.)
Part 2: 20%
Part 3: 30%
Part 4: 50%

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 Pharmaceutical Science for students entering Part 1 in session 2019/20
13 September 2018