

Programme Specification: Undergraduate

For students starting in Academic Year 2020/21

1. Course Summary

Names of programme and award title(s)	Master of Pharmacy (MPharm)
Award type	Single Honours
Mode of study	Full-time
Framework of Higher Education Qualification (FHEQ) level of final award	Level 7
Normal length of the programme	4 years
Maximum period of registration	The normal length as specified above plus 3 years
Location of study	Keele Campus
Accreditation (if applicable)	This subject/programme is accredited by the General Pharmaceutical Council (GPhC). For further details see the section on Accreditation
Regulator	Office for Students (OfS)
Tuition Fees	<p>UK/EU students:</p> <p>Fee for 2020/21 is £9,250*</p> <p>International students:</p> <p>Fee for 2020/21 is £20,000**</p>

How this information might change: Please read the important information at <http://www.keele.ac.uk/student-agreement/>. This explains how and why we may need to make changes to the information provided in this document and to help you understand how we will communicate with you if this happens.

* These fees are regulated by Government. We reserve the right to increase fees in subsequent years of study in response to changes in government policy and/or changes to the law. If permitted by such change in policy or law, we may increase your fees by an inflationary amount or such other measure as required by government policy or the law. Please refer to the accompanying Student Terms & Conditions. Further information on fees can be found at <http://www.keele.ac.uk/studentfunding/tuitionfees/>

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2. What is an Integrated Master's programme?

Integrated master's awards are delivered through a programme that combines study at the level of a bachelor's degree with honours with study at master's level. As such, a student graduates with a master's degree completing the programme of study. The Integrated Masters programme described in this document builds upon undergraduate-level study by adding a fourth year in which students study modules in Pharmacy at an advanced level.

3. Overview of the Programme

The aim of the MPharm programme is to produce graduates prepared to undertake the pre-registration programme (the post-graduate training year required to register as a pharmacist) with the values and attitudes that will enable them to undertake the roles and duties of a pharmacist in a highly professional manner.

4. Aims of the programme

The broad aims of the programme are to:

- enable our students to apply an evidence-based and patient-centred approach to practice;
- provide students with the breadth and depth of appropriate subject knowledge in keeping with an MPharm programme;
- provide high quality teaching in Pharmacy in a dynamic environment that reflects external developments in employers' needs;
- enable students to become reflective learners, and to encourage and develop self-discipline and enthusiasm for continual professional development that continues throughout their careers;
- provide students with the opportunity to gain direct and indirect experience of the work of a pharmacist, enabling an understanding of the profession of Pharmacy as a patient-centred discipline, and the role of the pharmacist in primary and secondary care settings and in the pharmaceutical industry;
- allow students to deepen both their Pharmacy-specific knowledge but also their skills base, by maintaining both a programme of appropriate skills training throughout the course but also by introducing increasing challenges as the programme progresses

Following the government White Paper, Pharmacy in England: Building on Strengths - Delivering the Future (Department of Health, 2008), and the formation of the General Pharmaceutical Council (GPhC) in 2010, the structure of MPharm programmes nationally is under review. Foremost amongst potential developments is the introduction of greater clinical content and experience into MPharm curricula, and this may encompass the inclusion of the pre-registration year in a five-year integrated programme leading directly to registration.

Anticipating these changes, the Keele MPharm programme has been designed to provide:

- a fully integrated and contextualised course that better prepares students for the future roles of the pharmacist; and
- increased opportunities for students to have contact with patients and to practise their clinical skills.

While designing the course, care has been taken to build in flexibility for whatever model of placements is decided upon by the profession. A programme structure comprising four 120-credit integrated modules will allow for the smooth inclusion of enhanced placement opportunities.

5. What you will learn

See Section 8 for information about the intended learning outcomes of the programme (what students should know, understand and be able to do at the end of the programme), by level/year. These intended learning outcomes are based on the outcomes in the General Pharmaceutical Council's (GPhC) document '*Future pharmacists: Standards for the initial education and training of pharmacists*'.

Link: https://www.pharmacyregulation.org/sites/default/files/document/gphc_future_pharmacists_may_2011.pdf

Keele Graduate attributes

Engagement with this programme will enable you to develop your intellectual, personal and professional capabilities. At Keele, we call these our ten Graduate Attributes and they include independent thinking, synthesizing information, creative problem solving, communicating clearly, and appreciating the social, environmental and global implications of your studies and activities. Our educational programme and learning environment is designed to help you to become a well-rounded graduate who is capable of making a positive and valued contribution in a complex and rapidly changing world, whichever spheres of life you engage in after your studies are completed.

Further information about the Keele Graduate Attributes can be found here: <http://www.keele.ac.uk/journey/>

6. How is the programme taught?

A wide variety of teaching methods are used within the MPharm programme. These include traditional large group teaching sessions, workshops, seminars and tutorials (both face-to-face and on-line) and a variety of practical classes that support the development of scientific and professional skills. However, a feature of the Keele MPharm programme is the use of innovative teaching methods; these include: computer-generated virtual environments where the student can "float" complex molecules to view receptor sites, and a virtual body which can show anatomy and physiology in detail in three-dimensions.

The above scheduled teaching sessions are supported by an extensive programme of one-to-one mentoring by healthcare professionals, a series of clinical placements and regular opportunities to interact with both simulated (actor) and real patients.

Learning and teaching methods used on the programme vary according to the subject matter and level of the module.

Apart from these formal activities, students are also provided with regular opportunities to talk through particular areas of difficulty, and any special learning needs they may have, with their Personal Tutors or module lecturers on a one-to-one basis.

7. Teaching Staff

The staffing within the School of Pharmacy and Bioengineering includes professors and a complement of readers, senior lecturers,

lecturers and academic-related and technical support staff, all of which contribute to a supportive environment for study. A number of staff have dual roles, in that they have contracts with the University but also hold contracts with other relevant stakeholders, including the NHS. Several of the current staff also have extensive experience of working within the pharmaceutical industry and are able to provide context and perspective to all aspects of the programme.

All current permanent academic staff are members of, or are working towards, membership of the Higher Education Academy. All current permanent academic staff hold academic qualifications up to at least Post-graduate diploma level or significant equivalent experience within practice and the majority hold a PhD qualification in a discipline firmly rooted in pharmacy. The staff group has extensive experience of teaching at undergraduate and postgraduate level and includes individuals with expertise in learning and teaching, and research. The work of all research-active staff has been published widely and shared via conference presentations, for example.

The University will attempt to minimise changes to our core teaching teams, however, delivery of the programme depends on having a sufficient number of staff with the relevant expertise to ensure that the programme is taught to the appropriate academic standard.

Staff turnover, for example where key members of staff leave, fall ill or go on research leave, may result in changes to the programme's content. The University will endeavour to ensure that any impact on students is limited if such changes occur.

8. What is the structure of the programme?

The academic year runs from September to June and is divided into two semesters. The number of weeks of teaching will vary from course to course, but you can generally expect to attend scheduled teaching sessions between the end of September and mid-December, and from mid-January to the end of April.

Our degree courses are organised into modules. Each module is usually a self-contained unit of study and each is usually assessed separately with the award of credits on the basis of 1 credit = 10 hours of student effort. An outline of the structure of the programme is provided in the tables below.

The programme is planned as four 120-credit modules - one for each year of study. During each year teaching material is delivered within themes that are designed to integrate the physical and social sciences within the context of patient care and public health.

During Level 7 students have the opportunity to choose topics to study within an electives strand that is designed to complement their chosen career path within Pharmacy. Students will choose from a range of specialist topics taught in small seminar groups and an extended project. The number of specialist options chosen and the length / nature of the project may be varied to suit each student's interests and aspirations.

Shown on the following pages are the learning outcomes for each level of study. Further details of the mapping of learning outcomes to themes are provided in the module guides for each level of study.

For further information on the content of modules currently offered please visit:
<https://www.keele.ac.uk/recordsandexams/modulecatalogue/>

Year	Compulsory	Optional		Electives	
		Min	Max	Min	Max
Level 4	120	0	0	0	0
Level 5	120	0	0	0	0
Level 6	120	0	0	0	0
Level 7	120	0	0	0	0

Module Lists

Level 4

Compulsory modules	Module Code	Credits	Period
MPharm Programme Stage 1	PHA-10014	120	Semester 1-2

Level 5

Compulsory modules	Module Code	Credits	Period
MPharm Programme Stage 2	PHA-20009	120	Semester 1-2

Level 6

Compulsory modules	Module Code	Credits	Period
MPharm Programme Stage 3	PHA-30010	120	Semester 1-2

Level 7

Compulsory modules	Module Code	Credits	Period
MPharm Programme Stage 4	PHA-40120	120	Semester 1-2

Learning Outcomes

The table below sets out what students learn in the programme and the modules in which that learning takes place. Details of how learning outcomes are assessed through these modules can be found in module specifications.

Level 4

Subject Knowledge and Understanding	
Learning Outcome	Module in which this is delivered
Apply an integrated approach towards patient care which links pharmaceutical science and pharmacy practice	MPharm Programme Stage 1 - PHA-10014 01: Laboratory Skills Assessment The laboratory assessment will comprise laboratory reports undertaken over the three cycles of stage 1, including formative opportunities.
Describe the concepts of health, illness, public health and the development of health policy, including the role of medicines in society	MPharm Programme Stage 1 - PHA-10014 01: Laboratory Skills Assessment The laboratory assessment will comprise laboratory reports undertaken over the three cycles of stage 1, including formative opportunities.
Describe the structure and function of healthcare provision in the UK, including the regulation of healthcare professionals	MPharm Programme Stage 1 - PHA-10014 02: Practical Skills Assessment The assessment will comprise a variety of academic and professional skills-based tasks including essay(s), group work project(s) and presentation(s) undertaken over the three cycles of stage 1 including formative opportunities.
Recognise the key characteristics of a responsible and capable healthcare professional, including skills, attitudes and values	MPharm Programme Stage 1 - PHA-10014 02: Practical Skills Assessment The assessment will comprise a variety of academic and professional skills-based tasks including essay(s), group work project(s) and presentation(s) undertaken over the three cycles of stage 1 including formative opportunities.

Subject Knowledge and Understanding	
Learning Outcome	Module in which this is delivered
Describe the roles of other healthcare professionals and the importance of interprofessional collaboration	MPharm Programme Stage 1 - PHA-10014 03: Exam End of 1st cycle exam The end of 1st cycle exam will comprise one paper in MCQ format. Formative tests will be provided prior to the examination to assist students with preparation.
Demonstrate an understanding of the key features of the profession of pharmacy and the varied career profiles of pharmacists	MPharm Programme Stage 1 - PHA-10014 03: Exam End of 1st cycle exam The end of 1st cycle exam will comprise one paper in MCQ format. Formative tests will be provided prior to the examination to assist students with preparation.
Describe and apply the underpinning legal framework for the sale and supply of medicines in the UK	MPharm Programme Stage 1 - PHA-10014 03: Exam End of 1st cycle exam The end of 1st cycle exam will comprise one paper in MCQ format. Formative tests will be provided prior to the examination to assist students with preparation.
Demonstrate an ability to make sound and informed decisions in accordance with basic ethical principles	MPharm Programme Stage 1 - PHA-10014 03: Exam End of 1st cycle exam The end of 1st cycle exam will comprise one paper in MCQ format. Formative tests will be provided prior to the examination to assist students with preparation.
Describe the basic architecture and cellular diversity of prokaryotic and eukaryotic cells	MPharm Programme Stage 1 - PHA-10014 01: Laboratory Skills Assessment The laboratory assessment will comprise laboratory reports undertaken over the three cycles of stage 1, including formative opportunities.
Explain the essential aspects of metabolism at a cellular level	MPharm Programme Stage 1 - PHA-10014 01: Laboratory Skills Assessment The laboratory assessment will comprise laboratory reports undertaken over the three cycles of stage 1, including formative opportunities.
Describe the different types of inter- and intracellular signalling systems in eukaryotic cells	MPharm Programme Stage 1 - PHA-10014 01: Laboratory Skills Assessment The laboratory assessment will comprise laboratory reports undertaken over the three cycles of stage 1, including formative opportunities.
Describe the central role of thermodynamics, chemical kinetics and electrochemistry in biological systems	MPharm Programme Stage 1 - PHA-10014 02: Practical Skills Assessment The assessment will comprise a variety of academic and professional skills-based tasks including essay(s), group work project(s) and presentation(s) undertaken over the three cycles of stage 1 including formative opportunities.
Describe the cellular and molecular interactions involved in the formation and function of tissues	MPharm Programme Stage 1 - PHA-10014 02: Practical Skills Assessment The assessment will comprise a variety of academic and professional skills-based tasks including essay(s), group work project(s) and presentation(s) undertaken over the three cycles of stage 1 including formative opportunities.
Describe the role of genes in living organisms and how inheritance of genes affects human body systems	MPharm Programme Stage 1 - PHA-10014 04: Exam End of 2nd cycle exam The end of 2nd cycle exam will comprise one paper in MCQ format. Formative tests will be provided prior to the examination to assist students with preparation.

Subject Knowledge and Understanding	
Learning Outcome	Module in which this is delivered
Describe the normal anatomy and physiology of the major body systems	MPharm Programme Stage 1 - PHA-10014 04: Exam End of 2nd cycle exam The end of 2nd cycle exam will comprise one paper in MCQ format. Formative tests will be provided prior to the examination to assist students with preparation.
Describe the structure and function of common receptor types	MPharm Programme Stage 1 - PHA-10014 04: Exam End of 2nd cycle exam The end of 2nd cycle exam will comprise one paper in MCQ format. Formative tests will be provided prior to the examination to assist students with preparation.
Interpret pharmacological data to identify drug-target interactions	MPharm Programme Stage 1 - PHA-10014 01: Laboratory Skills Assessment The laboratory assessment will comprise laboratory reports undertaken over the three cycles of stage 1, including formative opportunities.
Explain the common mechanisms by which drugs interact with physiological systems to exert pharmacological and adverse effects	MPharm Programme Stage 1 - PHA-10014 01: Laboratory Skills Assessment The laboratory assessment will comprise laboratory reports undertaken over the three cycles of stage 1, including formative opportunities.
Interpret common pathological symptoms associated with abnormal functions in body systems	MPharm Programme Stage 1 - PHA-10014 02: Practical Skills Assessment The assessment will comprise a variety of academic and professional skills-based tasks including essay(s), group work project(s) and presentation(s) undertaken over the three cycles of stage 1 including formative opportunities.
Recognise and describe the structures and functions of molecules and their reactivity	MPharm Programme Stage 1 - PHA-10014 02: Practical Skills Assessment The assessment will comprise a variety of academic and professional skills-based tasks including essay(s), group work project(s) and presentation(s) undertaken over the three cycles of stage 1 including formative opportunities.
Describe how functional groups affect the physicochemical properties of molecules	MPharm Programme Stage 1 - PHA-10014 05: Exam End of 3rd cycle exam. The end of 3rd cycle exam will comprise one paper in MCQ format. Formative tests will be provided prior to the examination to assist students with preparation.
Describe how the physicochemical properties of molecules affect their formulation into medicines and the route of administration to patients	MPharm Programme Stage 1 - PHA-10014 05: Exam End of 3rd cycle exam. The end of 3rd cycle exam will comprise one paper in MCQ format. Formative tests will be provided prior to the examination to assist students with preparation.
Describe why a variety of dosage forms is necessary and the relative merits and demerits of the available forms	MPharm Programme Stage 1 - PHA-10014 05: Exam End of 3rd cycle exam. The end of 3rd cycle exam will comprise one paper in MCQ format. Formative tests will be provided prior to the examination to assist students with preparation.

Subject Knowledge and Understanding	
Learning Outcome	Module in which this is delivered
Determine the purity and composition of compounds using appropriate practical and analytical techniques	MPharm Programme Stage 1 - PHA-10014 06: Professional skills development The Professional Development assessment will include CPD activities, competency assessments (including calculations and communications skills), case studies in ethics, and evidence of professionalism measured by Professional Activity Credits
Describe the process of drug design and development from identification of target to formulation	MPharm Programme Stage 1 - PHA-10014 06: Professional skills development The Professional Development assessment will include CPD activities, competency assessments (including calculations and communications skills), case studies in ethics, and evidence of professionalism measured by Professional Activity Credits
Describe and explain biopharmaceutics in terms of the relationship between dosage form and interaction of the drug substance with human physiology	MPharm Programme Stage 1 - PHA-10014 06: Professional skills development The Professional Development assessment will include CPD activities, competency assessments (including calculations and communications skills), case studies in ethics, and evidence of professionalism measured by Professional Activity Credits
Demonstrate a high level of laboratory skill and apply a knowledge of the skills necessary for the successful completion of appropriate manipulative practical exercises	MPharm Programme Stage 1 - PHA-10014 07: Mixed Exam End of year synoptic assessment This assessment will comprise both group work and individual assessment. It will potentially cover all topics studied during the year, but will focus in particular on demonstrating understanding of the integration of those topics
Demonstrate competence in pharmaceutical calculations	MPharm Programme Stage 1 - PHA-10014 07: Mixed Exam End of year synoptic assessment This assessment will comprise both group work and individual assessment. It will potentially cover all topics studied during the year, but will focus in particular on demonstrating understanding of the integration of those topics
Communicate complex concepts effectively, both orally and in writing, in a manner that reflects professional practice	MPharm Programme Stage 1 - PHA-10014 07: Mixed Exam End of year synoptic assessment This assessment will comprise both group work and individual assessment. It will potentially cover all topics studied during the year, but will focus in particular on demonstrating understanding of the integration of those topics

Level 5

Subject Knowledge and Understanding	
Learning Outcome	Module in which this is delivered
Demonstrate knowledge of and apply an integrated approach towards patient care which links pharmaceutical science and pharmacy practice	MPharm Programme Stage 2 - PHA-20009 01: Laboratory Assessment 1st Cycle laboratory skills assessment The laboratory assessment will comprise elements from multiple laboratory sessions during the 1st Cycle.
Explain how physiological patient factors affect the choice of pharmacological agents to treat disease states based upon absorption, distribution, metabolism and excretion data	MPharm Programme Stage 2 - PHA-20009 01: Laboratory Assessment 1st Cycle laboratory skills assessment The laboratory assessment will comprise elements from multiple laboratory sessions during the 1st Cycle.

Subject Knowledge and Understanding	
Learning Outcome	Module in which this is delivered
Identify and describe the mechanisms of common drug-drug, drug- patient and drug-food interactions and their consequences for patient care	MPharm Programme Stage 2 - PHA-20009 01: Laboratory Assessment 1st Cycle laboratory skills assessment The laboratory assessment will comprise elements from multiple laboratory sessions during the 1st Cycle.
Explain how drug resistance and drug interactions have consequences for patient care	MPharm Programme Stage 2 - PHA-20009 02: Practical Assessment 1st Cycle practical skills assessment The practical skills assessment will cover a variety of academic and professional skills-based tasks.
Explain the relationship between absorption, distribution, metabolism and elimination of drugs and their physicochemical properties and formulation	MPharm Programme Stage 2 - PHA-20009 02: Practical Assessment 1st Cycle practical skills assessment The practical skills assessment will cover a variety of academic and professional skills-based tasks.
Compare and evaluate the efficiency and safety of different routes of drug administration	MPharm Programme Stage 2 - PHA-20009 02: Practical Assessment 1st Cycle practical skills assessment The practical skills assessment will cover a variety of academic and professional skills-based tasks.
Explain the underpinning concepts in physical chemistry and materials science which underpin drug formulation	MPharm Programme Stage 2 - PHA-20009 03: Exam End of 1st cycle exam The end of cycle examination will comprise two papers and will contain a mix of MCQ and written answer questions.
Evaluate and select processes and formulations appropriate to the manufacture of specified drug products	MPharm Programme Stage 2 - PHA-20009 03: Exam End of 1st cycle exam The end of cycle examination will comprise two papers and will contain a mix of MCQ and written answer questions.
Explain the processes involved in the quality assurance of all aspects of pharmaceutical drug development, formulation and the manufacturing process	MPharm Programme Stage 2 - PHA-20009 03: Exam End of 1st cycle exam The end of cycle examination will comprise two papers and will contain a mix of MCQ and written answer questions.
Describe in detail analytical techniques employed to assure quality and safety during the drug development process and the quality, safety and efficacy of the finished drug product	MPharm Programme Stage 2 - PHA-20009 04: Laboratory Assessment 2nd cycle laboratory skills assessment The laboratory assessment will comprise elements from multiple laboratory sessions during the 2nd Cycle
Demonstrate the relationship between the design of drug product formulation, properties of the formulation, in vitro behaviour and in vivo performance	MPharm Programme Stage 2 - PHA-20009 04: Laboratory Assessment 2nd cycle laboratory skills assessment The laboratory assessment will comprise elements from multiple laboratory sessions during the 2nd Cycle
Apply the physicochemical principles underlying the formulation of various dosage forms to the extemporaneous preparation of medicines	MPharm Programme Stage 2 - PHA-20009 04: Laboratory Assessment 2nd cycle laboratory skills assessment The laboratory assessment will comprise elements from multiple laboratory sessions during the 2nd Cycle
Describe the relevance of microbiology within healthcare practice, and the challenges presented by infection in the context of patient care	MPharm Programme Stage 2 - PHA-20009 05: Practical Assessment 2nd cycle practical skills assessment The practical skills assessment will cover a variety of academic and professional skills-based tasks.

Subject Knowledge and Understanding	
Learning Outcome	Module in which this is delivered
Describe in detail the metabolic interrelationships of the various tissues and organs of the human body, including the role of hormones in the integration of metabolism and the maintenance of homeostasis	MPharm Programme Stage 2 - PHA-20009 05: Practical Assessment 2nd cycle practical skills assessment The practical skills assessment will cover a variety of academic and professional skills-based tasks.
Explain the common techniques used in the analysis of biological data to arrive at safe and appropriate drug selection for a patient	MPharm Programme Stage 2 - PHA-20009 06: Exam End of 2nd cycle exam. The end of cycle exam will comprise two papers and will contain a mix of MCQs and written answer questions.
Interpret nationally and locally produced guidelines in the selection and recommendation of appropriate therapeutic regimens for patients	MPharm Programme Stage 2 - PHA-20009 06: Exam End of 2nd cycle exam. The end of cycle exam will comprise two papers and will contain a mix of MCQs and written answer questions.
Apply a methodical approach to, and demonstrate competence in, the supply of medicines, including controlled drugs, in light of relevant clinical, legal, ethical and pharmaceutical factors	MPharm Programme Stage 2 - PHA-20009 07: Professional Development Professional skills development The professional development assessment will include CPD activities, competency assessment in pharmacy practice (including calculations and communication skills), case studies in ethics and evidence of professionalism measured by Professional Activity Credits.
Demonstrate competence in pharmaceutical calculations related to pharmacology, pharmaceutics and pharmacy practice	MPharm Programme Stage 2 - PHA-20009 07: Professional Development Professional skills development The professional development assessment will include CPD activities, competency assessment in pharmacy practice (including calculations and communication skills), case studies in ethics and evidence of professionalism measured by Professional Activity Credits.
Demonstrate competence in the performance of laboratory techniques in the pharmaceutical sciences and the analysis of data generated therein	MPharm Programme Stage 2 - PHA-20009 08: Mixed Exam End of year synoptic assessment This assessment will comprise both group work and individual assessment. It will potentially cover all topics studied during the year, but will focus in particular on demonstrating understanding of the integration of those topics.
Communicate complex concepts effectively, both orally and in writing, in a manner that reflects professional practice	MPharm Programme Stage 2 - PHA-20009 08: Mixed Exam End of year synoptic assessment This assessment will comprise both group work and individual assessment. It will potentially cover all topics studied during the year, but will focus in particular on demonstrating understanding of the integration of those topics.

Level 6

Subject Knowledge and Understanding	
Learning Outcome	Module in which this is delivered

Subject Knowledge and Understanding	
Learning Outcome	Module in which this is delivered
Apply a detailed understanding of the statistical and mathematical tools of evidence-based medicine, including epidemiology, to calculate, analyse and draw conclusions from the results of clinical trials and epidemiological studies	MPharm Programme Stage 3 - PHA-30010 01: Coursework Stage 3 Coursework part 1 This component of assessment comprises a variety of assessments including case studies and critiques.
Use the principles of evidence-based medicine and systematically apply knowledge of the underpinning pharmaceutical sciences to the process of therapeutic decision making in the management of specified disease states	MPharm Programme Stage 3 - PHA-30010 01: Coursework Stage 3 Coursework part 1 This component of assessment comprises a variety of assessments including case studies and critiques.
Demonstrate knowledge of and apply an integrated approach towards patient care which links pharmaceutical science and pharmacy practice	MPharm Programme Stage 3 - PHA-30010 02: Coursework Stage 3 Coursework part 2 This component of assessment comprises a variety of assessments including: case studies, on-line group work, and Tripartite Problem Solving Exercises (TRIPSEs).
Apply a systematic and integrated knowledge of underpinning pharmaceutical sciences and pharmaceutical care to the interpretation and implementation of clinical and therapeutic guidelines	MPharm Programme Stage 3 - PHA-30010 02: Coursework Stage 3 Coursework part 2 This component of assessment comprises a variety of assessments including: case studies, on-line group work, and Tripartite Problem Solving Exercises (TRIPSEs).
Review, consolidate and extend knowledge and understanding of the properties and applications of drug delivery systems to maximise the therapeutic benefits for patients	MPharm Programme Stage 3 - PHA-30010 03: Coursework Stage 3 Coursework part 3 Students will be assessed by form of a research proposal in an area of research chosen by tutor and student.
Review, consolidate and extend knowledge and understanding of microbiology, medicinal chemistry, pharmacology and pharmaceuticals in the context of pharmaceutical care and medicines optimisation	MPharm Programme Stage 3 - PHA-30010 03: Coursework Stage 3 Coursework part 3 Students will be assessed by form of a research proposal in an area of research chosen by tutor and student.
Describe and critically evaluate the role of pharmacotherapy in the management of specified disease states	MPharm Programme Stage 3 - PHA-30010 03: Coursework Stage 3 Coursework part 3 Students will be assessed by form of a research proposal in an area of research chosen by tutor and student.
Develop an understanding of the causes, incidence and clinical features, including differential diagnosis, of specified disease states	MPharm Programme Stage 3 - PHA-30010 04: Mixed Exam Stage 3 Examination 1 (2 papers) This examination comprises both seen and unseen elements and will contain a combination of MCQs and written answers presented as two papers.
Apply a systematic and integrated knowledge of underpinning pharmaceutical sciences to the process of therapeutic decision making in specific population groups, including: children, the elderly, pregnant women and breastfeeding mothers, patients with liver and renal impairment	MPharm Programme Stage 3 - PHA-30010 04: Mixed Exam Stage 3 Examination 1 (2 papers) This examination comprises both seen and unseen elements and will contain a combination of MCQs and written answers presented as two papers.
Critically evaluate medical case notes (including laboratory data) as part of a multidisciplinary healthcare team	MPharm Programme Stage 3 - PHA-30010 05: Mixed Exam Stage 3 Examination 2 (2 papers) This examination comprises both seen and unseen elements and will contain a combination of MCQs and written answers presented as two papers.

Subject Knowledge and Understanding	
Learning Outcome	Module in which this is delivered
Review, consolidate and extend knowledge of the legal, regulatory and governance frameworks of pharmacy practice	MPharm Programme Stage 3 - PHA-30010 05: Mixed Exam Stage 3 Examination 2 (2 papers) This examination comprises both seen and unseen elements and will contain a combination of MCQs and written answers presented as two papers.
Review, consolidate and extend knowledge of the regulation of healthcare professions, including fitness to practise	MPharm Programme Stage 3 - PHA-30010 05: Mixed Exam Stage 3 Examination 2 (2 papers) This examination comprises both seen and unseen elements and will contain a combination of MCQs and written answers presented as two papers.
Demonstrate a systematic understanding of the concepts of public health, health inequalities and health promotion (including the legal and professional framework for accountability) needed to implement and evaluate a health promotion campaign	MPharm Programme Stage 3 - PHA-30010 06: Mixed Exam End of year synoptic assessment This assessment will comprise both group work and individual assessment. It will potentially cover all topics studied during the year, but will focus in particular on demonstrating understanding of the integration of those topics.
Apply an in-depth knowledge of decision making processes to complex ethical problems	MPharm Programme Stage 3 - PHA-30010 06: Mixed Exam End of year synoptic assessment This assessment will comprise both group work and individual assessment. It will potentially cover all topics studied during the year, but will focus in particular on demonstrating understanding of the integration of those topics.
Compare and critically evaluate research techniques and self-management skills in order to plan a programme of research at a professional level	MPharm Programme Stage 3 - PHA-30010 07: Professional Development Professional skills development The Professional Development assessment will include CPD activities, competency assessment in pharmacy practice (including calculations and communications skills), case studies in ethics, and evidence of professionalism measured by Professional Activity Credits.
Identify and explain the differences between audit, service evaluation and research	MPharm Programme Stage 3 - PHA-30010 07: Professional Development Professional skills development The Professional Development assessment will include CPD activities, competency assessment in pharmacy practice (including calculations and communications skills), case studies in ethics, and evidence of professionalism measured by Professional Activity Credits.
Critically evaluate current research and advanced scholarship in pharmacy, the pharmaceutical sciences and related fields, and apply a detailed understanding of the research process in planning a research project	MPharm Programme Stage 3 - PHA-30010 07: Professional Development Professional skills development The Professional Development assessment will include CPD activities, competency assessment in pharmacy practice (including calculations and communications skills), case studies in ethics, and evidence of professionalism measured by Professional Activity Credits.
Demonstrate an ability to make informed decisions using the available evidence base to solve complex problems	MPharm Programme Stage 3 - PHA-30010 07: Professional Development Professional skills development The Professional Development assessment will include CPD activities, competency assessment in pharmacy practice (including calculations and communications skills), case studies in ethics, and evidence of professionalism measured by Professional Activity Credits.

Subject Knowledge and Understanding	
Learning Outcome	Module in which this is delivered
Demonstrate competence in calculations related to evidence-based medicine, clinical pharmacy and pharmaceuticals	MPharm Programme Stage 3 - PHA-30010 07: Professional Development Professional skills development The Professional Development assessment will include CPD activities, competency assessment in pharmacy practice (including calculations and communications skills), case studies in ethics, and evidence of professionalism measured by Professional Activity Credits.
Communicate complex concepts effectively, both orally and in writing, in a manner that reflects professional practice	MPharm Programme Stage 3 - PHA-30010 07: Professional Development Professional skills development The Professional Development assessment will include CPD activities, competency assessment in pharmacy practice (including calculations and communications skills), case studies in ethics, and evidence of professionalism measured by Professional Activity Credits.

Level 7

Subject Knowledge and Understanding	
Learning Outcome	Module in which this is delivered
Apply a systematic understanding of pharmacology, pharmacokinetics and pharmaceuticals to the process of therapeutic decision making and the rationale and role of drug therapy	MPharm Programme Stage 4 - PHA-40120 01: Group Project Student-led workshop and patient case Students will work in groups to design and lead workshops for their peers on designated clinical topics. Students will also undertake a formal presentation of a patient case the details of which will be obtained whilst on clinical placement. The presentation will be delivered at Keele. NB: As these are "live" teaching sessions it is not possible to assess these anonymously
Demonstrate knowledge of and apply an integrated approach towards patient care which links pharmaceutical science and pharmacy practice	MPharm Programme Stage 4 - PHA-40120 01: Group Project Student-led workshop and patient case Students will work in groups to design and lead workshops for their peers on designated clinical topics. Students will also undertake a formal presentation of a patient case the details of which will be obtained whilst on clinical placement. The presentation will be delivered at Keele. NB: As these are "live" teaching sessions it is not possible to assess these anonymously
Apply the principles of evidence based medicine to clinical and therapeutic scenarios and critically evaluate complex therapeutic regimens	MPharm Programme Stage 4 - PHA-40120 02: Group Project Health Promotion Project Students will work collaboratively to design and deliver a health promotion campaign, including production of health promotion materials. NB: As these are "live" activities conducted and assessed in public locations, it is not possible to assess these activities anonymously.

Subject Knowledge and Understanding	
Learning Outcome	Module in which this is delivered
Apply a systematic knowledge of the current understanding of the epidemiology, aetiology, pathophysiology, clinical features and diagnosis of disease states to solve problems concerning the management of specified diseases and clinical conditions	MPharm Programme Stage 4 - PHA-40120 02: Group Project Health Promotion Project Students will work collaboratively to design and deliver a health promotion campaign, including production of health promotion materials. NB: As these are "live" activities conducted and assessed in public locations, it is not possible to assess these activities anonymously.
Apply comprehensive knowledge of pharmaceutical sciences, clinical therapeutics and evidence based principles to the process of diagnosis, clinical management of disease and therapeutic decision making	MPharm Programme Stage 4 - PHA-40120 07: Exam This examination will comprise a combination of MCQ and a time-limited series of unseen cases. The exam will focus on the non-elective teaching materials studied.
Critically evaluate patients' responses to therapeutic interventions and modify treatment where appropriate	MPharm Programme Stage 4 - PHA-40120 07: Exam This examination will comprise a combination of MCQ and a time-limited series of unseen cases. The exam will focus on the non-elective teaching materials studied.
Apply a systematic understanding of the consultation process including an understanding of compliance and concordance and demonstrate the ability to communicate effectively with patients, carers and other healthcare professionals	MPharm Programme Stage 4 - PHA-40120 03: Coursework Electives - Option topics and/or project Students will be assessed in their chosen elective topics. Those students undertaking a research project, audit or service evaluation will complete a report on this along with a variety of assessment methods within the optional topics. These may include (but are not exclusive to) presentations, critiques, essays and tests. NB it is not possible to assess anonymously the majority of assessments in this section as they will be taught and assessed on a one-to-one or small group basis.
Demonstrate an understanding of the roles and responsibilities of the different members of the prescribing team and the responsibilities of a pharmacist prescriber	MPharm Programme Stage 4 - PHA-40120 03: Coursework Electives - Option topics and/or project Students will be assessed in their chosen elective topics. Those students undertaking a research project, audit or service evaluation will complete a report on this along with a variety of assessment methods within the optional topics. These may include (but are not exclusive to) presentations, critiques, essays and tests. NB it is not possible to assess anonymously the majority of assessments in this section as they will be taught and assessed on a one-to-one or small group basis.
Demonstrate a comprehensive understanding of the legal, policy, professional, ethical and clinical governance frameworks for accountability and responsibility in relation to pharmacist prescribing	MPharm Programme Stage 4 - PHA-40120 04: Online tasks Contributions to online discussions on current developments Students will participate in a blog of current issues in pharmacy and healthcare generally. NB it is not possible to assess participation in this activity anonymously.
Apply a comprehensive knowledge of the regulation of health care professions and fitness to practice, in particular in relation to pharmacists in their extended roles as consultant pharmacists, independent prescribers, pharmaceutical health specialists and clinical team leaders	MPharm Programme Stage 4 - PHA-40120 04: Online tasks Contributions to online discussions on current developments Students will participate in a blog of current issues in pharmacy and healthcare generally. NB it is not possible to assess participation in this activity anonymously.

Subject Knowledge and Understanding	
Learning Outcome	Module in which this is delivered
Explain in detail how molecular genetics can be applied in clinical research, in the diagnosis of disease states, and in the design of appropriate therapies using pharmacogenomics	MPharm Programme Stage 4 - PHA-40120 05: Objective Structured Skills & Clinical Examination Final competency based assessment Students will complete a multi-station competency based assessment (CBA) that will focus on skills and knowledge required for day one of pharmacy practice. CBA stations will include for example: dispensing exercises, clinical skills, communication skills in the context of health promotion, recent changes to governance and regulatory requirements. There will be an opportunity for formative/mock assessment in the CBA under exam conditions and students will be able to gain exemption from the final assessment based upon performance in the mock assessment. NB some elements of the CBA will involve face-to-face interaction and hence cannot be marked anonymously.
Apply a systematic and detailed understanding of the dynamic nature of genes in populations and the possible causes of inherited and acquired genetic diseases	MPharm Programme Stage 4 - PHA-40120 05: Objective Structured Skills & Clinical Examination Final competency based assessment Students will complete a multi-station competency based assessment (CBA) that will focus on skills and knowledge required for day one of pharmacy practice. CBA stations will include for example: dispensing exercises, clinical skills, communication skills in the context of health promotion, recent changes to governance and regulatory requirements. There will be an opportunity for formative/mock assessment in the CBA under exam conditions and students will be able to gain exemption from the final assessment based upon performance in the mock assessment. NB some elements of the CBA will involve face-to-face interaction and hence cannot be marked anonymously.
Interpret the impact of recent advances in therapeutics on patient care	MPharm Programme Stage 4 - PHA-40120 05: Objective Structured Skills & Clinical Examination Final competency based assessment Students will complete a multi-station competency based assessment (CBA) that will focus on skills and knowledge required for day one of pharmacy practice. CBA stations will include for example: dispensing exercises, clinical skills, communication skills in the context of health promotion, recent changes to governance and regulatory requirements. There will be an opportunity for formative/mock assessment in the CBA under exam conditions and students will be able to gain exemption from the final assessment based upon performance in the mock assessment. NB some elements of the CBA will involve face-to-face interaction and hence cannot be marked anonymously.
Develop an original health promotion service by drawing on a systematic and integrated knowledge of applied therapeutics in the context of public health	MPharm Programme Stage 4 - PHA-40120 06: Professional Development Professional skills development This assessment comprises students' participation in a number of activities that reflect attributes of pharmacists in professional practice. These will include participation in reflective practice in CPD cycles; participation in ethical case studies; and participation in the Professional Activity Credits (PAC) scheme.
Undertake critical appraisal of the impact on pharmacy practice of recent legislative changes (including EC directives) and professional developments	MPharm Programme Stage 4 - PHA-40120 06: Professional Development Professional skills development This assessment comprises students' participation in a number of activities that reflect attributes of pharmacists in professional practice. These will include participation in reflective practice in CPD cycles; participation in ethical case studies; and participation in the Professional Activity Credits (PAC) scheme.

Subject Knowledge and Understanding		
Learning Outcome	Module in which this is delivered	
Critically evaluate current research and advanced scholarship and practice in selected specialist topics and accurately undertake data acquisition in a relevant project area if appropriate	MPharm Programme Stage 4 - PHA-40120 06: Professional Development Professional skills development This assessment comprises students' participation in a number of activities that reflect attributes of pharmacists in professional practice. These will include participation in reflective practice in CPD cycles; participation in ethical case studies; and participation in the Professional Activity Credits (PAC) scheme.	
Apply a systematic and detailed understanding of the legal, professional and contractual frameworks governing healthcare and use these to critically evaluate the implications of recent changes in the healthcare environment, particularly in relation to pharmacy	MPharm Programme Stage 4 - PHA-40120 06: Professional Development Professional skills development This assessment comprises students' participation in a number of activities that reflect attributes of pharmacists in professional practice. These will include participation in reflective practice in CPD cycles; participation in ethical case studies; and participation in the Professional Activity Credits (PAC) scheme.	
Communicate progress reports and conclusions on work carried out to specialist and non-specialist audiences	MPharm Programme Stage 4 - PHA-40120 06: Professional Development Professional skills development This assessment comprises students' participation in a number of activities that reflect attributes of pharmacists in professional practice. These will include participation in reflective practice in CPD cycles; participation in ethical case studies; and participation in the Professional Activity Credits (PAC) scheme.	
Show self-direction and originality in tackling and solving problems	MPharm Programme Stage 4 - PHA-40120 06: Professional Development Professional skills development This assessment comprises students' participation in a number of activities that reflect attributes of pharmacists in professional practice. These will include participation in reflective practice in CPD cycles; participation in ethical case studies; and participation in the Professional Activity Credits (PAC) scheme.	
<p>9. Final and intermediate awards</p> <p>Continuing to complete awards, both orally and in writing, in a manner that reflects professional practice Credits required for each level of academic award are as follows:</p>		
Master's Degree		You will require at least 120 credits at levels 4, 5, 6 and 7
	480 credits	For the purpose of the Integrated Master's degree with honours classification modules shall contribute to the mean average calculation as follows: <ul style="list-style-type: none"> • Level 5 module: 20% • Level 6 module: 30% • Level 7 module: 50%
Honours Degree	360 credits	You will require at least 120 credits at levels 4, 5 and 6
Diploma in Higher Education	240 credits	You will require at least 120 credits at level 4 or higher and at least 120 credits at level 5 or higher
Certificate in Higher Education	120 credits	You will require at least 120 credits at level 4 or higher

NB: Students are only eligible for entry to the pre-registration training year (and hence to the Register of Pharmacists) when they graduate with the full MPharm degree

10. How is the Programme Assessed?

The wide variety of assessment methods used on this programme at Keele reflects the broad range of knowledge and skills that are developed as you progress through the degree programme. Teaching staff pay particular attention to specifying clear assessment criteria and providing timely, regular and constructive feedback that helps to clarify things you did not understand and helps you to improve your performance.

In each Level of the programme a combination of examination (in various formats) and coursework is employed. An outline of the assessment types is provided below.

At all levels, reassessment opportunities for individual components of coursework will be provided during the academic year. Students who have failed to complete any of the assessments above will be given the opportunity to redeem the failure during the August reassessment period, where possible.

Level 4 (Stage 1)

Each eight-week cycle of learning is assessed using a balanced mix of unseen multiple-choice examinations and laboratory, coursework and skills-based assignments. Students also complete a professional development portfolio, given the title of Professional Skills Element, throughout the year.

After completing the three cycles of learning and assessment students undertake a problem-based learning strand culminating in a group-based competency assessment. The aim of this synoptic assessment is to ensure that students demonstrate understanding of the links and interdependencies between the topics that they have covered during the year.

In order to be awarded credits at Level 4, students are required to pass:

- the end-of-cycle examinations;
- the laboratory skills component;
- the practical skills component

Students must also achieve a satisfactory standard in the Professional Skills Element (which includes competency based assessments) and the final synoptic assessment.

Progression to Level 5 is not permitted until all units of assessment are completed satisfactorily.

Level 5 (Stage 2)

There are two cycles of learning and assessment in Level 5. Each cycle is assessed using a balanced mix of unseen examinations, and laboratory, coursework and skills-based assignments, alongside the Professional Skills Element that runs throughout the year. As in Level 4, a synoptic assessment allows students to demonstrate understanding of the links and interdependencies between the topics that they have covered; this assessment takes the form of a group-based assignment as at Level 4.

In order to be awarded credits at Level 5, students are required to pass:

- the end-of-cycle examinations;
- the laboratory skills assessments;
- the practical skills assessments

Students must also achieve a satisfactory standard in the Professional Skills Element (which includes competency based assessments such as that for dispensing practice) and the final synoptic assessment.

Progression to Level 6 is not permitted until all units of assessment are completed satisfactorily.

Level 6 (Stage 3)

Level 6 is assessed by a balanced mix of seen and unseen examinations, coursework and skills-based assignments alongside the Professional Skills Element and synoptic assessment throughout the year.

In addition, at Level 6 TRIPSE assessments are introduced. TRIPSEs are designed to mirror closely the clinical challenges that pharmacists face in day-to-day practice. Peer and self-assessment are also introduced at this level.

Progression to Level 7 is not permitted until all units of assessment are completed satisfactorily; it should be noted that students must achieve a threshold mark of 50% averaged across all Level 6 assessments in order to progress.

Level 7 (Stage 4)

New coursework assessments introduced at Level 7 include the project report and presentation, and a public health campaign along with a variety of assessments associated with the option topics.

As in previous years, students must also achieve a satisfactory standard in the Professional Skills Element (including competency based assessments) and the final synoptic assessment.

Formative assessments and feedback

Marks are awarded for summative assessments designed to assess your achievement of learning outcomes. You will also be assessed formatively to enable you to monitor your own progress and to assist staff in identifying and addressing any specific learning needs. Feedback, including guidance on how you can improve the quality of your work, is also provided on all summative assessments within three working weeks of submission, unless there are compelling circumstances that make this impossible, and more informally in the course of tutorial and seminar discussions.

Interprofessional Education (IPE)

At all levels of the programme there will be opportunities to participate in IPE sessions within the Faculty of Medicine and Health Sciences.

11. Contact Time and Expected Workload

This contact time measure is intended to provide you with an indication of the type of activity you are likely to undertake during this programme. The data is compiled based on module choices and learning patterns of students on similar programmes in previous years. Every effort is made to ensure this data is a realistic representation of what you are likely to experience, but changes to programmes, teaching methods and assessment methods mean this data is representative and not specific.

Undergraduate courses at Keele contain an element of module choice; therefore, individual students will experience a different mix of contact time and assessment types dependent upon their own individual choice of modules. The figures below are an example of activities that a student may expect on your chosen course by year stage of study. Contact time includes scheduled activities such as: lecture, seminar, tutorial, project supervision, demonstration, practical classes and labs, supervised time in labs/workshop, fieldwork and external visits. The figures are based on 1,200 hours of student effort each year for full-time students.

Activity

	Scheduled learning and teaching activities	Guided independent Study	Placements
Year 1 (Level 4)	37%	62%	1%
Year 2 (Level 5)	33%	66%	1%
Year 3 (Level 6)	28%	70%	2%
Year 4 (Level 7)	25%	75%	0%

12. Accreditation

This programme is accredited by the General Pharmaceutical Council (GPhC). Please note the specific regulations below. Study abroad is not currently permitted on the MPharm programme.

13. University Regulations

The University Regulations form the framework for learning, teaching and assessment and other aspects of the student experience. Further information about the University Regulations can be found at: <http://www.keele.ac.uk/student-agreement/>

If this programme has any exemptions, variations or additions to the University Regulations these will be detailed in an Annex at the end of this document titled 'Programme-specific regulations'.

14. What are the typical admission requirements for the Programme?

See the relevant course page on the website for the admission requirements relevant to this programme:
<https://www.keele.ac.uk/study/>

Applicants who are not currently undertaking any formal study or who have been out of formal education for more than 3 years and are not qualified to A-level or BTEC standard may be offered entry to the University's Foundation Year Programme.

All applicants are required to meet a minimum standard in English language. Applicants are required to have achieved GCSE English Language at C/4 or a University recognised equivalent. Where required, applicants need to have achieved a minimum score of 7.0 in IELTS.

Please note: All non-native English speaking students are required to undertake a diagnostic English language assessment on arrival at Keele, to determine whether English language support may help them succeed with their studies. An English language module may be compulsory for some students during their first year at Keele.

The MPharm Programme does not allow Recognition of Prior Learning (RPL).

15. How are students supported on the programme?

There is a wide spectrum of support available to students on the MPharm programme. These range from the institution-level student support services to the specific one-to-one support offered by the personal tutoring system. Every student is allocated to a member of staff to act as personal tutor at the start of his/her studies. Personal tutors also act as a first point of contact for students on non-academic issues which may affect their learning and can refer students on to a range of specialist health, welfare and financial services co-ordinated by the University's Student Services. In addition to the provision of pastoral support, personal tutors provide feedback on assessments; this is particularly important in relation to students' first experiences of assessment in Level 4 where early feedback is particularly important in helping students to adjust to higher education.

Students in Levels 4 and 5 are allocated a mentor to support their professional development. Professional mentors are drawn from members of staff who are registered as healthcare professionals in pharmacy or medicine.

In Level 4 and 5 students are also allocated a "Buddy" - a more experienced student colleague from Levels 7 and 6 of the programme respectively - who provides peer support and guidance.

To support students in finding employment for their post-graduate (pre-registration) year, and for vacation employment, careers events are embedded within the course to supplement the opportunities that students have to engage with potential employers on placements. A separate careers section is also available on the KLE to highlight opportunities available.

16. Learning Resources

The undergraduate activities of the School of Pharmacy and Bioengineering are based within dedicated buildings at the heart of the academic science cluster on Keele campus. These include:

- The Jack Ashley building which houses three pharmaceuticals laboratories. In addition, the building houses the Digital Health Hub (see below for more details).
- A state-of-the-art Chemistry laboratory that provides facilities for up to 64 students.
- Facilities located in the Lennard-Jones Laboratories (chemistry research and analytical laboratories, and the Atrium IT suite), and the Huxley building (biochemistry and physiology laboratories).
- The Hornbeam building provides further teaching facilities, including the Well Pharmacy Clinical Skills Suite, the Health Cinema and accommodation for all staff of the School of Pharmacy and Bioengineering (aside from a number of technical support staff who have offices close to the facilities that they support).

The laboratories in all locations have the necessary equipment for dispensing and preparative practical work. The main pharmaceuticals laboratory in the Jack Ashley building can accommodate groups of up to 48 students. Those in the Lennard-Jones Laboratories are designed for maximum occupancy of 64 students, and the Huxley building has space for 120 students (3 x 40-place bays). Additional laboratory space for physiology, pathology and pharmacology work is located on campus within the Undergraduate Medical School (3 x 40-place bays).

The Pharmacy IT team have developed a 'Health Cinema' for use on its programmes. This is a large screen, visualisation facility located in our 133-seat lecture theatre. The cinema-grade projection system can use both 2D and 3D. We use the Health Cinema to enhance the learning experience in the Pharmacy syllabus. Using open-source 'PyMol' software, you can "float" complex molecules on the screen and move them around to view receptor sites. We have also licenced a virtual body that can show anatomy and physiology in detail as the various "layers" - skin, neural networks, muscle, skeleton and organs can be isolated, dissected and illustrated in 3D.

The Digital Health Hub is a new IT suite that has been developed for Pharmacy and Radiography (Diagnostic Imaging). The 60-seat space offers an augmented reality spaces to project virtual 3D models (e.g. anatomy, molecules, patients) onto the group tables. In addition, the space allows for students to use managed IT systems and a space to bring their own device if preferred.

17. Other Learning Opportunities

External learning opportunities on the Keele MPharm take two forms: observational visits and participatory placements.

In the first year of the course, students are given the opportunity to observe practice in primary care (community pharmacy) and secondary care (hospital pharmacy) environments. Students have 12 hours placement in community pharmacy (undertaken as 4 x 3 hour visits) with the opportunity to undertake a three hour placement in hospital pharmacy. These visits are designed to allow the student to contextualise the theoretical learning they have undertaken within the University. In the second year students are provided with support and information to organise 18 hours of placement activity within community pharmacy and are actively encouraged to seek further, voluntary, work experience. All MPharm students are indemnified by the university to undertake activities within pharmacy working environments meaning that these placements are participatory rather than observational. Also included in the Level 5 programme is a visit to a pharmaceutical company that specialises in the manufacture of liquid formulations so students will be able to experience the manufacture of pharmaceuticals on an industrial scale. These visits allow the students to further build upon and contextualise the material taught within the second year of the MPharm course, including that in pharmaceuticals and relating to pharmaceutical manufacturing.

In the third and final years of the MPharm course the emphasis of the placement activity is very much of participation. Placements

within the secondary care setting start in the first semester of the third year as tutor-led teaching visits. By the end of the final year students are taken to a ward and encouraged, under supervision, to perform the functions of a hospital pharmacist by exploring and verifying the drug history of a small number of patients. Students are also encouraged, where it is possible, to talk to and ask questions of patients they encounter.

During the third year, secondary care placements are designed to reinforce the therapeutic areas being taught within the MPharm course. During the final year such specialisation is not deemed necessary as co-morbidities are being addressed within the therapeutic teaching sessions and so the students experience the variety and unpredictability of the real clinical environment.

Level 6 placements in community practice are organised in the same fashion as in Level 5 and the students are encouraged to explore non-prescription medicine supply. Within the first semester of Level 6, the students are responsible for the production of their own set of non-prescription medicine and advice guidelines. The community placements are expected to reinforce this material.

Students are responsible for reasonable costs incurred in travelling to local placements and making travel arrangements - in the same way as for travel to and from the University generally. As with all healthcare programmes, there are requirements for occupational health and fitness to practise checks that apply before students can undertake placements in healthcare settings.

Study abroad is not currently permitted on the MPharm programme.

18. Additional Costs

Occupational Health and Vaccinations

All students registering on the MPharm programme will need to have a health fitness report prepared by the University's Occupational Health Service (OHS). As part of this report your GP will need to complete the appropriate section of the questionnaire and provide a vaccination record that has your name, d.o.b. and a practice stamp on it. It is likely that your GP will make a charge for this service which could be in the region of £25 - but this charge can vary. You will receive all of the required information about this process in your offer letter from the University.

You will be required to have the following immunisations/immunity checks if you have not already had them.

- A course of hepatitis B plus a blood test to confirm immunity (a course is 3 or 4 vaccinations)
- MMR Vaccinations - proof of 2 vaccines or blood test confirming immunity (Your GP should be able to offer MMR vaccination free of charge if you have not previously had them)
- BCG - proof of vaccination or BCG Scar
- Additional TB screening - if you were born or lived in a TB endemic country for 3 months or more you will require a Quantum Interferon test for TB (IGRA)
- Chicken pox / varicella - you must have a definite history of illness or blood test to confirm immunity, if you are non-immune on blood testing you will require evidence of receiving two varicella vaccinations. Your vaccination requirements should be discussed with your GP; you are likely to incur a charge for these.

Appointments can be arranged for you once you have commenced your course however there will be a charge for these, currently between £40 - £80 per blood test.

Cost for vaccines - current costs vary between £45 and £90 per vaccine and up to £180 for a Hepatitis B vaccination course.

Please note the above costs are indicative and you would need to contact your GP or Keele's Occupational Health team for the latest charges.

You will be unable to attend experiential learning visits without a completed University Occupational Health Service health fitness report.

Disclosure and Barring Service (DBS) Check

As parts of your course will involve contact with patients who may be children or vulnerable adults, you are required to undergo an appropriate Disclosure and Barring Service check when you enrol on the MPharm course. The cost for the online check is currently £55.89.

Travel for placements

You will be required to attend local hospitals and community pharmacies for half-day teaching / training sessions. Travel costs to attend your placement can cost up to a maximum of £280 per year, but the proximity of your own accommodation to your placement location and any personal travel arrangements you may wish to organise (e.g. a student bus pass) may reduce this cost significantly.

All placements are allocated at random. Where possible, the School will be mindful of previous allocations re: distance.

Protective clothing

Protective clothing such as laboratory coats and safety goggles will be provided to you by the School of Pharmacy and Bioengineering free of charge in the first instance.

Activity	Estimated Cost
Travel (as above)	£280
Other additional costs - Occupational health clearance (first year only)	Up to £300
Other additional costs - DBS check (first year only)	£55.89
Total estimated additional costs	£635.89

These costs have been forecast by the University as accurately as possible but may be subject to change as a result of factors outside of our control (for example, increase in costs for external services). Forecast costs are reviewed on an annual basis to ensure they remain representative. Where additional costs are in direct control of the University we will ensure increases do not exceed 5%.

As to be expected there will be additional costs for inter-library loans and potential overdue library fines, print and graduation. We do not anticipate any further costs for this undergraduate programme.

19. Quality management and enhancement

The quality and standards of learning in this programme are subject to a continuous process of monitoring, review and enhancement.

- The School Education Committee is responsible for reviewing and monitoring quality management and enhancement procedures and activities across the School.
- Individual modules and the programme as a whole are reviewed and enhanced every year in the annual programme review which takes place at the end of the academic year.
- The programmes are run in accordance with the University's Quality Assurance procedures and are subject to periodic reviews under the Internal Quality Audit (IQA) process.

Student evaluation of, and feedback on, the quality of learning on every module takes place every year using a variety of different methods:

- The results of student evaluations of all modules are reported to module leaders and reviewed by the Programme Committee as part of annual programme review.
- Findings related to the programme from the annual National Student Survey (NSS), and from regular surveys of the student experience conducted by the University, are subjected to careful analysis and a planned response at programme and School level.
- Feedback received from representatives of students in all years of the programme is considered and acted on at regular meetings of the Student Staff Voice Committee.

The University appoints senior members of academic staff from other universities to act as external examiners on all programmes. They are responsible for:

- Approving examination questions
- Confirming all marks which contribute to a student's degree
- Reviewing and giving advice on the structure and content of the programme and assessment procedures

Information about current external examiner(s) can be found here:

<http://www.keele.ac.uk/qa/externalexaminers/currentexternalexaminers/>

Management of the MPharm programme

The MPharm Course Director is responsible for the overall direction of learning and teaching on the MPharm Programme supported by the Academic Stage Leads.

There is a tutor for each of the four year groups in the programme. It is the role of the Year Tutor to take an overview of the welfare and conduct of students in their year group. Year Tutors will meet with student representatives of their year group regularly throughout the year to listen to feedback on how the course is going and to pick up on any specific issues that need attention.

These will either be dealt with by the Year Tutor or referred to the SSVC.

The structure and roles of the School Education Committee (SEC) and the Student Staff Voice Committee (SSVC) are described below.

School Education Committee

The School Education Committee is chaired by the School Director of Education and comprises senior staff in the School of Pharmacy and Bioengineering. The Committee considers matters relevant to continuing professional accreditation and reviews and develops the School's learning and teaching strategy in line with the University Learning and Teaching Strategy.

Core responsibilities are:

- to have general oversight over quality and standards in the School
- to oversee and respond as appropriate to decisions and recommendations from programme committees
- to receive and consider annual and long-term review reports from programme committees
- to receive and consider reports on student evaluation of modules
- to receive and consider results from the National Student Survey (NSS)
- to receive reports from the SSVC(s) and report proposed action to these
- to receive and consider reports from meetings of the Faculty Education Committee
- to receive and consider reports from the School's Senior Tutor, library and careers liaison officers

Student Staff Voice Committee

The Student Staff Voice Committee (SSVC) is formed according to Keele's Code of Practice for such committees. The Committee meets at least twice each semester, Chaired by a student member, and provides a forum for discussion between students and staff about issues relating to teaching and assessment as well as the provision of facilities to Pharmacy undergraduates. Core responsibilities of the SSVC are:

- to discuss matters raised by students, and matters on which the School wishes to seek student views;
- to consider the outcome of student evaluation of programmes and modules, and the School's response to it;
- to advise the School on proposals for new programmes, and changes to existing programmes;
- to report the views of students to the School Education Committee, and receive reports from it on the School's proposed response.

Core Membership of the SSVC comprises:

- representatives of the academic staff of the School, whose number shall not exceed the number of student members, including the School Director of Education, Year Tutors and other staff with particular responsibilities.
- three elected representatives of each student cohort of the MPharm programme
- the Students' Union Vice-President for Education and Welfare and the deputy director of quality assurance responsible for liaison with the Students' Union, both of whom reserve the right to attend any SSVC meeting
- while the above constitutes the core membership, SSVC meetings are not closed, and any student who is studying on the programmes in question may attend

20. The principles of programme design

The programme described in this document has been drawn up with reference to, and in accordance with the guidance set out in, the following documents:

- UK Quality Code for Higher Education, Quality Assurance Agency for Higher Education: <http://www.qaa.ac.uk/quality-code>
- Pharmacy in England: building on strengths - delivering the future (Department of Health 2008)
- A High Quality Workforce: NHS Next Stage review (Department of Health, 2008)
- Life Sciences Blueprint (Department for Business Innovation and Skills, 2009)
- Keele University Regulations and Guidance for Students and Staff: <http://www.keele.ac.uk/regulations>
- Future pharmacists: Standards for the initial education and training of pharmacists (General Pharmaceutical Council, 2011)

21. Annex - International Year

Award title with International Year

International Year Programme
<p>Students registered for this Single Honours programme may either be admitted for or apply to transfer during their period of study at Level 5 to the International Year option. Students accepted onto this option will have an extra year of study (the International Year) at an international partner institution after they have completed Year 2 (Level 5) at Keele.</p> <p>Students who successfully complete both the second year (Level 5) and the International Year will be permitted to progress to Level 6. Students who fail to satisfy the examiners in respect of the International Year will normally revert to the standard programme and progress to Level 6 on that basis. The failure will be recorded on the student's final transcript.</p> <p>Study at Level 4, Level 5 and Level 6 will be as per the main body of this document. The additional detail contained in this annex will pertain solely to students registered for the International Year option.</p>
International Year Programme Aims

In addition to the programme aims specified in the main body of this document, the international year programme of study aims to provide students with:

1. Personal development as a student and a researcher with an appreciation of the international dimension of their subject
2. Experience of a different culture, academically, professionally and socially

Entry Requirements for the International Year

Students may apply to the 4-year programme during Level 5. Admission to the International Year is subject to successful application, interview and references from appropriate staff.

The criteria to be applied are:

- Academic Performance (an average of 60% across all modules in Semester 1 at Level 5 is normally required. Places on the International Year are then conditional on achieving an average mark of 54% across all Level 5 modules with no module fails. Where no Semester 1 marks have been awarded performance in 1st year marks and ongoing 2nd year assessments are taken into account)
- General Aptitude (to be demonstrated by application for study abroad, interview during the 2nd semester of year 2 (Level 5), and by recommendation of the student's personal tutor, 1st and 2nd year tutors and programme director)

Students may not register for both an International Year and a Placement Year.

Student Support

Students will be supported whilst on the International Year via the following methods:

- Phone or Skype conversations with Study Abroad tutor, in line with recommended Personal Tutoring meeting points.
- Support from the University's Global Education Team

Learning Outcomes

In addition to the learning outcomes specified in the main text of the Programme Specification, students who complete a Keele undergraduate programme with International Year will be able to:

1. Describe, discuss and reflect upon the cultural and international differences and similarities of different learning environments
2. Discuss the benefits and challenges of global citizenship and internationalisation
3. Explain how their perspective on their academic discipline has been influenced by locating it within an international setting.
4. ADD subject-specific ILOs

In addition, students who complete the International Year will be able to:

These learning outcomes will all be assessed by the submission of a satisfactory individual learning agreement, the successful completion of assessments at the partner institution and the submission of the reflective portfolio element of the international year module.

Regulations

Students registered for the International Year are subject to the programme-specific regulations (if any) and the University regulations. In addition, during the International Year, the following regulations will apply:

Students undertaking the International Year must complete 120 credits, which must comprise *at least 40%* in the student's discipline area.

This may impact on your choice of modules to study, for example you will have to choose certain modules to ensure you have the discipline specific credits required.

Students are barred from studying any module with significant overlap to the Level 6 modules they will study on their return. Significant overlap with Level 5 modules previously studied should also be avoided.

Additional costs for the International Year

Tuition fees for students on the International Year will be charged at 15% of the annual tuition fees for that year of study, as set out in Section 1. The International Year can be included in your Student Finance allocation, to find out more about your personal eligibility see: www.gov.uk

Students will have to bear the costs of travelling to and from their destination university, accommodation, food and personal costs. Depending on the destination they are studying at additional costs may include visas, study permits, residence permits, and compulsory health checks. Students should expect the total costs of studying abroad be greater than if they study in the UK, information is made available from the Global Education Team throughout the process, as costs will vary depending on destination.

Students studying in Erasmus+ destinations may be eligible for grants as part of this programme. Students studying outside of this programme may be eligible income dependent bursaries at Keele.

Students travel on a comprehensive Keele University insurance plan, for which there are currently no additional charges. Some Governments and/or universities require additional compulsory health coverage plans; costs for this will be advised during the application process.

22. Annex - Work Placement Year (or Industrial Placement Year or Entrepreneurship Year)

Award title with Work Placement Year [NB: please adapt this section as necessary]

Work Placement Year summary

Students registered for this programme may either be admitted for or apply to transfer during their studies to the 'with Work Placement Year' option (NB: for Combined Honours students the rules relating to the work placement year in the subject where the placement is organised are to be followed). Students accepted onto this programme will have an extra year of study (the Work Placement Year) with a relevant placement provider after they have completed Year 2 (Level 5) at Keele.

Students who successfully complete both the second year (Level 5) and the Work Placement Year will be permitted to progress to Level 6. Students who fail to satisfactorily complete the Work Placement Year will normally revert to the 3-year programme and progress to Level 6 on that basis. The failure will be recorded on the student's final transcript.

Study at Level 4, Level 5 and Level 6 will be as per the main body of this document. The additional detail contained in this annex will pertain solely to students registered for the Work Placement Year option.

Work Placement Year Programme Aims

In addition to the programme aims specified in the main body of this document, the Work Placement Year aims to provide students with:

1. ADD

Entry Requirements for the Work Placement Year

Admission to the Work Placement Year is subject to successful application, interview and references from appropriate staff. Students have the opportunity to apply directly for the 4-year 'with work placement year' degree programme, or to transfer onto the 4-year programme at the end of Year-1 and in Year-2 at the end of Semester 1. Students who are initially registered for the 4-year degree programme may transfer onto the 3-year degree programme at any point in time, prior to undertaking the year-long work placement. Students who fail to pass the work placement year, and those who fail to meet the minimum requirements of the work placement year module (minimum 30 weeks full time (1,050 hours), or equivalent, work placement), will be automatically transferred onto the 3-year degree programme.

The criteria to be applied are:

- A good University attendance record and be in 'good academic standing'.
- Passed all Year-1 and Year-2 Semester 1 modules
- Students undertaking work placements will be expected to complete a Health and Safety checklist prior to commencing their work experience and will be required to satisfy the Health and Safety regulations of the company or organisation at which they are based.
- (*International students only*) Due to visa requirements, it is not possible for international students who require a Tier 4 Visa to apply for direct entry onto the 4-year with Work Placement Year degree programme. Students wishing to transfer onto this programme should discuss this with student support, the academic tutor for the work placement year, and the Programme Lead. Students should be aware that there are visa implications for this transfer, and it is the student's responsibility to complete any and all necessary processes to be eligible for this programme. There may be additional costs, including applying for a new Visa from outside of the UK for international students associated with a transfer to the work placement programme.

Students may not register for both an International Year and a Work Placement Year.

Student Support

Students will be supported whilst on the Work Placement Year via the following methods:

- Regular contact between the student and a named member of staff who will be assigned to the student as their University supervisor. The University supervisor will be in regular contact with the student throughout the year, and be on hand to provide advice (pastoral or academic) and liaise with the Placement supervisor on the student's behalf if required.
- Two formal contacts with the student during the placement year: the University supervisor will visit the student in their placement organization at around the 5 weeks after placement has commenced, and then visit again (or conduct a telephone/video call tutorial) at around 15 weeks into the placement.
- Weekly supervision sessions will take place with the placement supervisor (or his/her nominee) throughout the duration of the placement.

Learning Outcomes

In addition to the learning outcomes specified in the main text of the Programme Specification, students who complete the 'with Work Placement Year' option will be able to:

1. ADD

These learning outcomes will be assessed through the non-credit bearing Work Placement Year module (ADD CODE) which involves:

1. ADD

Regulations

Students registered for the 'with Work Placement Year' option are subject to programme-specific regulations (if any) and the University regulations. In addition, during the Work Placement Year, the following regulations will apply:

- Students undertaking the Work Placement Year must successfully complete the zero-credit rated 'ADD TITLE' module (ADD CODE)
- In order to ensure a high quality placement experience, each placement agency will sign up to a placement contract (analogous to a service level agreement).
- Once a student has been accepted by a placement organisation, the student will make a pre-placement visit and a member of staff identified within the placement contract will be assigned as the placement supervisor. The placement supervisor will be responsible for ensuring that the placement experience meets the agreed contract agreed with the University.
- The placement student will also sign up an agreement outlining his/her responsibilities in relation to the requirements of each organisation.

Students will be expected to behave professionally in terms of:

(i) conforming to the work practices of the organisation; and

(ii) remembering that they are representatives of the University and their actions will reflect on the School and have an impact on that organisation's willingness (or otherwise) to remain engaged with the placement.

Additional costs for the Work Placement Year

Tuition fees for students on the Work Placement Year will be charged at 20% of the annual tuition fees for that year of study, as set out in Section 1. The Work Placement Year can be included in your Student Finance allocation; to find out more about your personal eligibility see: www.gov.uk

Students will have to bear the costs of travelling to and from their placement provider, accommodation, food and personal costs. Depending on the placement provider additional costs may include parking permits, travel and transport, suitable clothing, DBS checks, and compulsory health checks.

A small stipend may be available to students from the placement provider during the placement but this will need to be explored on a placement-by-placement basis as some organisations, such as charities, may not have any extra money available. Students should budget with the assumption that their placement will be unpaid.

Eligibility for student finance will depend on the type of placement and whether it is paid or not. If it is paid, this is likely to affect student finance eligibility, however if it is voluntary and therefore unpaid, should not affect student finance eligibility. Students are required to confirm eligibility with their student finance provider.

International students who require a Tier 4 visa should check with the Immigration Compliance team prior to commencing any type of paid placement to ensure that they are not contravening their visa requirements.

23. Annex - Programme-specific regulations

Programme Regulations: MPharm

Final Award and Award Titles	Master of Pharmacy (MPharm)
Intermediate Award(s)	BSc Honours Degree in Pharmaceutical Studies Diploma in Higher Education Certificate in Higher Education
Last modified	June 2019
Programme Specification	https://www.keele.ac.uk/qa/programmespecifications

The University's Academic Regulations which can be found on the Keele University website (<https://www.keele.ac.uk/regulations/>)[1] apply to and regulate the programme, other than in instances where the specific programme regulations listed below over-ride them. These programme regulations list:

- *Exemptions* which are characterised by the omission of the relevant regulation.
- *Variations* which are characterised by the replacement of part of the regulation with alternative wording.
- *Additional Requirements* which set out what additional rules that apply to students in relation to this programme.

The following **exemptions, variations** and **additional requirements** to the University regulations have been checked by Academic Services and have been approved by the Faculty Education Committee.

Your programme has professional accreditation and there are specific regulations, which you have to agree to abide by, as follows:

A) EXEMPTIONS

The clause(s) listed below describe where an exemption from the University's Academic Regulations exists:

For the whole duration of their studies, students on this Programme are exempt from the following regulations:

- Regulation C6 2.2: the MPharm programme does not allow Recognition of Prior Learning (RPL).
- University Regulation C6 (7.3) will not apply.
- University Regulation C6 (11.3) will not apply.
- For students entering or repeating Stage 1 (FHEQ Level 4) from September 2013 onwards the following provision applies. A student who has not satisfactorily completed all required components of assessment to accrue the 120 credits necessary for progression to the next level of study on two occasions shall be required to withdraw from the University. Normally the two assessment attempts would be completed within the same academic year.

B) VARIATIONS

The clause(s) listed below describe where a variation from the University's Academic Regulations exists:

- All four 120-credit modules in the Keele MPharm programme are core and each 120-credit module must be accrued in order to progress and to graduate. For this reason, aegrotat MPharm degrees will not be awarded.
- The award of MPharm will require the successful completion of 120 credits at Stage 4. University academic regulation C6 (12.1) regarding a Masters award on completion of 90 credits at M-level will not apply. However, a student who fails to satisfy the requirements for the award of MPharm shall revert to BSc Honours Degree candidature and be considered for awards under University Regulation C3. The title of such awards will be Pharmaceutical Studies.
- Study abroad is not currently permitted on the MPharm programme. Only placements in the UK will be permitted.

C) ADDITIONAL REQUIREMENTS

The programme requirements listed below are in addition to the University's Academic Regulations:

- Graduates from the MPharm programme must carry out a period of assessed pre-registration training in order to register with the GPhC to practise Pharmacy. Consequently, the MPharm degree is viewed as a vocational programme and is a pre-requisite for pre-registration study, and the MPharm course is subject to accreditation by the GPhC.
- Further details concerning progression through the various Stages of the programme and the degree classification scheme can be found in the MPharm Student Handbook and Study Guide.
- There are requirements for occupational health and fitness to practise checks that apply before students can undertake placements in healthcare settings.

[1] References to University Regulations in this document apply to the content of the University's Regulatory Framework as set out on the University website here <https://www.keele.ac.uk/regulations/>.

Version History

This document

Date Approved: 20 December 2019

Previous documents

Version No	Year	Owner	Date Approved	Summary of and rationale for changes
1.1	2019/20	REBECCA VENABLES		
1	2019/20	EDWARD MCCAULEY	02 October 2019	