Programme Specification: Undergraduate

For Academic Year 2026/27

1. Course Summary

Names of programme and award title(s)	BSc (Hons) Pharmaceutical Science BSc (Hons) Pharmaceutical Science with International Year BSc (Hons) Pharmaceutical Science with Work Placement Year
Award type	Single Honours
Mode of study	Full-time
Framework of Higher Education Qualification (FHEQ) level of final award	Level 6
Normal length of the programme	3 years
Maximum period of registration	The normal length as specified above plus 3 years
Location of study	Keele Campus
Accreditation (if applicable)	Accreditation is currently being sought from appropriate professional bodies; this process is on-going.
Regulator	Office for Students (OfS)
Tuition Fees	**UK students:** Fee for 2026/27 is £9,790* **International students:** Fee for 2026/27 is £18,200** The fee for the international year abroad is calculated at 15% of the standard year fee The fee for the work placement year is calculated at 20% of the standard year fee

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/*

*** These fees are for new students. We reserve the right to increase fees in subsequent years of study by an inflationary amount. Please refer to the accompanying Student Terms & Conditions for full details. Further information on fees can be found at http://www.keele.ac.uk/studentfunding/tuitionfees/*

2. What is a Single Honours programme?

The Single Honours programme described in this document allows you to focus more or less exclusively on this

subject. In keeping with Keele's commitment to breadth in the curriculum, the programme also gives you the opportunity to take some modules in other disciplines and in modern foreign languages as part of a 360-credit Honours degree. Thus it enables you to gain, and be able to demonstrate, a distinctive range of graduate attributes.

The BSc in Pharmaceutical Science currently has one optional module at Year 1 of study (FHEQ Level 4): students can take a 15-credit module offered by the Keele Language Centre, the GCP pathway or from within the School of Allied Health Professions and Pharmacy. This emphasises the international nature of the programme and also offers the opportunity for support, as appropriate, in English language, or to increase the breadth of the programme content.

3. Overview of the Programme

The global pharmaceutical industry has experienced substantial change in recent years. Industry leaders must now understand how discoveries in science and technology translate to business opportunities within the pharmaceutical industry, whether in discovery, manufacturing, marketing and medicines supply and control. The employment market is becoming more challenging and this programme meets the need of the industry by producing graduates who are well-qualified in all aspects of the relevant applied sciences, who have well-developed key employability skills, and who also have significant knowledge and understanding of and insight into business and management - so you get more than just training in the core pharmaceutical sciences.

This course covers the main aspects of pharmaceutical discovery and development, product formulation, manufacture and quality assurance assessment, and explains how such pure and applied sciences fit into global business, legal and regulatory frameworks. This includes elements of clinical development and the role of the pharmaceutical scientist within the industry team that take a drug from research to the clinic.

As part of the preparation to enter the global pharmaceutical industry, there will be an opportunity to pursue a language pathway throughout the programme. In the first year you will take a language module in English (depending on fluency levels) or a modern foreign language for those fluent in English. This will ensure you have both a language and cultural understanding of nations outside your home country. For modern languages (not English language modules) you may wish to pursue a pathway through the programme that will provide you with recognition of this on your degree certificate. There will be opportunities at years two and three of the programme, depending on entry level to your chosen language and availability, to take up to 60 credits of language learning on this programme. If you achieve 60 credits of language learning as part of your programme you will have added to your degree certificate the additional recognition of having achieved "with competency in [Chosen Language]" or "with advanced competency in [Chosen Language]", depending on the level which you achieve. You can also take language modules as non-credit extracurricular study throughout your programme - further details can be obtained from the Language Centre.

The principal aim of the programme is to develop knowledge and skills in a wide variety of disciplines by demonstrating the linkages between seemingly disparate topics in science and technology that underpin all subsequent learning, and which are central to the successful delivery of new medicines to global markets.

4. Aims of the programme

The broad aims of the programme are to enable you to:

- Develop the key scientific skill that, in an integrated context, underpin the clinically relevant development of pharmaceutical products
- Understand the structures and frameworks in which the pharmaceutical industry operates, both nationally and globally

5. What you will learn

The intended learning outcomes of the programme (what students should know, understand and be able to do at the end of the programme), can be described under the following headings:

- Subject knowledge and understanding
- Subject specific skills
- Key or transferable skills (including employability skills)

Subject knowledge and understanding

Successful students will be able to:

- Understand the core principles of the pharmaceutical sciences as they are applied to the development, licencing and marketing of pharmaceutical products

Subject specific skills

Successful students will be able to:

- Understand the nature of pharmaceutical development, both in the laboratory and in the business environments, and to use this knowledge in the development of new strategies to develop clinically relevant approaches to disease management and treatment

Key or transferable skills (including employability skills)

Successful students will be able to:

- Appreciate and understand how the core chemical and biological sciences integrate to underpin the successful development of pharmaceutical products, a core skills base which is directly applicable to a number of other industries (e.g. cosmetics, foods)

Keele Graduate Attributes

The Keele Graduate Attributes are the qualities (skills, values and mindsets) which you will have the opportunity to develop during your time at Keele through both the formal curriculum and also through co- and extra-curricular activities (e.g., work experience, and engagement with the wider University community such as acting as ambassadors, volunteering, peer mentoring, student representation, membership and leadership of clubs and societies). Our Graduate Attributes consist of four themes: **academic expertise, professional skills, personal effectiveness, and social, environmental and ethical responsibility.** You will have opportunities to engage actively with the range of attributes throughout your time at Keele: through your academic studies, through self-assessing your own strengths, weaknesses, and development needs, and by setting personal development goals. You will have opportunities to discuss your progress in developing graduate attributes with, for example, Academic Mentors, to prepare for your future career and lives beyond Keele.

6. How is the programme taught?

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

- Lectures, tutorials, workshops, problem-solving sessions, interactive and immersive 3D teaching in the Health Cinema, laboratory work (individual and group exercises) and integrated 'synoptic' assessments which integrate the differing science subjects with the business aspects of the programme to develop clinically relevant products for patients.

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 Academic Mentors or module lecturers on a one-to-one basis.

These learning and teaching methods enable students to achieve the learning outcomes of the programme in a variety of ways. For example:

- The use of a wide range of assessment skills allow us to focus on different aspects of the challenges faced in pharmaceutical development; for example, this might include the use of individual or group-based activities, oral presentation sessions or student-led workshops where decision making is both collective and led by students; research projects may also give students the ability to work on a major piece of novel research not only by themselves but in collaboration with students taking similar projects and within the setting of research groups with the School for Allied Health Professions and Pharmacy.

7. Teaching Staff

The staff who deliver this course are based predominately within the School for Allied Health Professions and Pharmacy and have expertise in the core aspects of the pharmaceutical sciences: pharmacology, physiology, medicinal and organic chemistry and formulation and drug delivery. In addition, several members of the School's academic staff have previously worked in the pharmaceutical (and related) industry and who can frame their academic work within the context of their previous roles.

The BSc programme also makes significant use of expert external speakers who are, or have worked, in the pharmaceutical industry or related industries. This includes a range of business-focused roles and addresses with real world examples subjects as diverse as clinical development, marketing and branding of pharmaceutical products, the role of healthcare systems in the context of pharmaceutical sales and regulatory affairs.

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 programme to programme, 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.

There are two types of module delivered as part of your programme. They are:

- Compulsory modules - a module that you are required to study on this course;
- Optional modules - these allow you some limited choice of what to study from a list of modules.

Global Challenge Pathways

This programme includes the option for you to take a Global Challenge Pathway. These modules offer you an exciting opportunity to work with students and staff from different disciplines to explore topical global issues such as power and conflict, health inequalities, climate change, generative AI, social justice, global citizenship, and enterprise from different perspectives.

Global Challenge Pathways can either be taken as one 15-credit module at Levels 4, 5 and 6, or one 15-credit module at Levels 5 and 6. For more information about our Global Challenge Pathways please visit: https://www.keele.ac.uk/study/undergraduate/globalchallengepathways/

Modern Languages or Certificate in TESOL

Alternatively, you could choose to study modules with the University Language Centre. The Language Centre offers three pathways; The Language Specialist, The Language Taster, and The Trinity Certificate in Teaching English to Speakers of Other Language (TESOL). Language Centre modules are available separately for students at Levels 4 and 5. At Level 6 they are included within the Global Challenge Pathways.

If you choose the Language Specialist pathway, you will automatically be enrolled on a Semester 2 Modern Language module as a continuation of your language of choice (NB: in year 1, this is a faculty funded 'additional' module). Undertaking a Modern Languages module in Semester 2 is compulsory if you wish to continue to the Language Specialist Global Challenge Pathway the following academic year.

For more information about Language Centre option modules available to you please visit the following webpages.

For Level 4 and 5 students please visit: https://www.keele.ac.uk/study/languagecentre/languagecentreoptions/

For Level 6 students please visit: https://www.keele.ac.uk/students/academiclife/global-challenge-pathways/

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

A summary of the credit requirements per year is as follows.

Year	Compulsory	Optional	
		Min	Max
Level 4	105	15	15
Level 5	90	30	30
Level 6	60	60	60

This list includes the work placement year, PHA-30065, which is normally taken between Levels 5 and 6.

Module Lists

Level 4

Students will take 105 credits of compulsory modules PHA-10028, PHA-10030, PHA-10032 and PHA-10036.

Students will therefore take 15 credits of optional modules. Students will have three pathways to select from:

1. PHA-10038 Introduction to Cosmetic Science
2. Global Challenge Pathway
3. A module from those available from the Language Centre

All optional module selections are subject to availability and compatibility with the School of Allied Health Professions and Pharmacy timetable for compulsory modules.

Compulsory modules	Module Code	Credits	Period
Human Anatomy and Physiology	PHA-10028	30	Semester 1-2
Biochemistry & Cell Biology	PHA-10030	30	Semester 1-2
Introduction to Pharmaceutical Science	PHA-10032	30	Semester 1-2
Introduction to Formulation Science	PHA-10036	15	Semester 2

Optional modules	Module Code	Credits	Period
Introduction to Cosmetic Science	PHA-10038	15	Semester 1

Level 4 Module Rules

GCP language modules have to be taken according to the wider requirements of the GCP programme. However, language modules can also be taken outside the GCP framework by enrolling in relevant modules offered by the Language Centre.

To obtain the additional degree notations of either "..with competency" or "...with advanced competency" outside the GCP framework students should take four modules across the optional space provided. In the case of language modules offered by the Language Centre, this involves taking four modules across the three years of the programme. Whilst it is more common to take these modules at Levels 5 and 6 (one module in each semester at each year) it is also possible, but more associated with the Study Abroad scheme, for students to take a language module in Semester 1 at Level 4 and then to continue this in Semester 2 at Level 5, completing the four modules at Level 6.

Language modules offered by the Language Centre are numbers LLU-xxx[n], with n normally being 1 to 10 which reflects the level of the module content.

For students to receive the "...with competence" notation they must take four language modules across their programme of study, up to Level 6, e.g. for "competence" in Spanish they should take SPN-9003/4/5/6 across the three years of their programme. For students to receive the "...with advanced competence" notation they must take four language modules across their programme of study, up to Level 10, e.g. for "competence" in Spanish they should take SPN-9007/8/9/10 across the three years of their programme.

Students can, of course, take language modules without seeking or achieving the additional degree notations.

Optional modules offered by the School of Allied Health Professions and Pharmacy may not run if the number of students selecting a particular model falls below a threshold (normally 5-10 students, depending on overall cohort size).

Level 5

Students will take 90 credits of compulsory modules, PHA-20016, PHA-20014 and PHA-20018.

Students will therefore take 30 credits of optional modules. Students will have three pathways to select from:

1. Available modules from the Global Challenge Pathway

2. A module available from those offered by the Language Centre.

3. A module from those available from the School of Allied Health Professions and Pharmacy.

All optional module selections are subject to availability and compatibility with the School for Allied Health Professions and Pharmacy timetable for compulsory modules.

Compulsory modules	Module Code	Credits	Period
Pharmaceutical Analysis And Quality Control	PHA-20014	30	Semester 1-2
Applied Pharmaceutical Science I	PHA-20016	30	Semester 1-2
Applied Pharmaceutical Science II	PHA-20018	30	Semester 1-2

Optional modules	Module Code	Credits	Period
Molecular Biotechnology	PHA-20028	15	Semester 1
Topical Formulation Development	PHA-20038	15	Semester 1

Level 5 Module Rules

GCP language modules have to be taken according to the wider requirements of the GCP programme. However, language modules can also be taken outside the GCP framework by enrolling in relevant modules offered by the Language Centre.

To obtain the additional degree notations of either "..with competency" or "...with advanced competency" outside the GCP framework students should take four modules across the optional space provided. In the case of language modules offered by the Language Centre, this involves taking four modules across the three years of the programme. Whilst it is more common to take these modules at Levels 5 and 6 (one module in each semester at each year) it is also possible, but more associated with the Study Abroad scheme, for students to take a language module in Semester 1 at Level 4 and then to continue this in Semester 2 at Level 5, completing the four modules at Level 6.

Language modules offered by the Language Centre are numbers LLU-xxx[n], with n normally being 1 to 10 which reflects the level of the module content.

For students to receive the "...with competence" notation they must take four language modules across their programme of study, up to Level 6, e.g. for "competence" in Spanish they should take SPN-9003/4/5/6 across the three years of their programme. For students to receive the "...with advanced competence" notation they must take four language modules across their programme of study, up to Level 10, e.g. for "competence" in Spanish they should take SPN-9007/8/9/10 across the three years of their programme.

Students can, of course, take language modules without seeking or achieving the additional degree notations.

PHA-20028 is a pre-requisite for studying PHA-30057 at Level 6.

Optional modules offered by the School of Allied Health Professions and Pharmacy may not run if the number of students selecting a particular model falls below a threshold (normally 5-10 students, depending on overall cohort size).

Level 6

Students will take 60 credits of compulsory modules and 60 credits of optional modules.

Students will have three pathways to select from:

1. Available modules from the Global Challenge Pathway.

2. Appropriate modules available from the Language Centre.

3. A module from those available from the School of Allied Health Professions and Pharmacy.

This section also includes PHA-30065, which is the placement module. This module is normally taken between Levels 5 and 6.

Compulsory modules	Module Code	Credits	Period
The Pharmaceutical Industry at the Cutting Edge	PHA-30021	30	Semester 1-2
Pharmaceutical Science Research Project	PHA-30025	30	Semester 1-2

Optional modules	Module Code	Credits	Period
Current Developments in Pharmaceutical Science II	PHA-30017	15	Semester 1-2
Current Developments in Pharmaceutical Science	PHA-30019	30	Semester 1-2
Advanced Topics in Pharmaceutical Science (Pharmacology)	PHA-30041	15	Semester 1-2
Modern Biotherapeutics	PHA-30057	15	Semester 1-2
Advanced Pharmaceutics & Drug Delivery	PHA-30067	15	Semester 1-2
Advanced Topics in Pharmaceutical Science (Medicinal Chemistry)	PHA-30069	15	Semester 1-2
Work Placement for Pharmaceutical & Cosmetic Science Programmes	PHA-30065	0	Semester 1-3

Level 6 Module Rules

GCP language modules have to be taken according to the wider requirements of the GCP programme. However, language modules can also be taken outside the GCP framework by enrolling in relevant modules offered by the Language Centre.

To obtain the additional degree notations of either "..with competency" or "...with advanced competency" outside the GCP framework students should take four modules across the optional space provided. In the case of language modules offered by the Language Centre, this involves taking four modules across the three years of the programme. Whilst it is more common to take these modules at Levels 5 and 6 (one module in each semester at each year) it is also possible, but more associated with the Study Abroad scheme, for students to take a language module in Semester 1 at Level 4 and then to continue this in Semester 2 at Level 5, completing the four modules at Level 6.

Language modules offered by the Language Centre are numbers LLU-xxx[n], with n normally being 1 to 10 which reflects the level of the module content.

For students to receive the "...with competence" notation they must take four language modules across their programme of study, up to Level 6, e.g. for "competence" in Spanish they should take SPN-9003/4/5/6 across the three years of their programme. For students to receive the "...with advanced competence" notation they must take four language modules across their programme of study, up to Level 10, e.g. for "competence" in Spanish they should take SPN-9007/8/9/10 across the three years of their programme.

Students can, of course, take language modules without seeking or achieving the additional degree notations.

Note: PHA-20028 is a pre-requisite for taking PHA-30057, due to the detailed and specific content in these modules.

Optional modules offered by the School of Allied Health Professions and Pharmacy may not run if the number of students selecting a particular model falls below a threshold (normally 5-10 students, depending on overall cohort size).

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**
Demonstrate knowledge and understanding, at a basic level, of the main scientific and technological principles supporting selected	Human Anatomy and Physiology - PHA-10028
Outline the structures and roles of common biological molecules and describe their chemical and physical properties	Human Anatomy and Physiology - PHA-10028
Identify common organic molecular structures and functional groups and write suitable reaction mechanisms for their interconversion	Human Anatomy and Physiology - PHA-10028
Demonstrate knowledge of the basic thermodynamic principles that govern the progress of chemical reactions both in vitro and in vivo	Human Anatomy and Physiology - PHA-10028
Explain the kinetics of a chemical or biological process, and describe and apply methods for determining the rate of that process both in vitro and in vivo	Human Anatomy and Physiology - PHA-10028
Recognise how the structural features, stereochemistry and functional groups responsible for chemical and physical properties can influence the biological activity of molecules and, hence, the drug design process	Human Anatomy and Physiology - PHA-10028
Develop and employ experimental, analytical and reporting skills in the successful completion of appropriate manipulative practical exercises	Human Anatomy and Physiology - PHA-10028
Acquire data from experiments, analyse and manipulate it using appropriate techniques, and apply methods for the presentation of data, including statistical analysis and choosing an appropriate method of presentation	Human Anatomy and Physiology - PHA-10028
Recognise and apply appropriately the health and safety practices and policies required for a wide range of pharmaceutical science laboratory classes, including appropriate documentation	Human Anatomy and Physiology - PHA-10028
Demonstrate and apply the appropriate levels of numeracy and IT skills requisite for further study in pharmaceutical science at all Levels to perform common scientific calculations with precision and accuracy	Human Anatomy and Physiology - PHA-10028
Recognise the opportunities to target specific cell structures and processes for the treatment of disease	Introduction to Pharmaceutical Science - PHA-10032
Recognise and describe the integration of metabolic processes in the maintenance of homeostasis and the consequences of errors in metabolism	Introduction to Pharmaceutical Science - PHA-10032
Recognise the pivotal role played by the gene in living organisms, including patterns of inheritance and human disease, and discuss the molecular aspects of chromosome and gene structure, replication, expression and regulation	Introduction to Pharmaceutical Science - PHA-10032
Describe the basic architecture and cellular diversity of prokaryotic and eukaryotic (plant and animal) cells, making comparisons and distinctions between them	Introduction to Pharmaceutical Science - PHA-10032

Subject Knowledge and Understanding	
Learning Outcome	**Module in which this is delivered**
Recognise and describe the principles of structure and bonding which affect the 3- dimensional shape of molecules and assign appropriate stereochemical descriptions to organic and biological molecules	Introduction to Pharmaceutical Science - PHA-10032
Recognise how the structural features, stereochemistry and functional groups responsible for chemical and physical properties can influence the biological activity of molecules and, hence, the drug design process	Introduction to Pharmaceutical Science - PHA-10032
Identify common organic molecular structures and functional groups and write suitable reaction mechanisms for their interconversion	Introduction to Pharmaceutical Science - PHA-10032
Describe the cellular and molecular interactions involved in the formation of tissues	Introduction to Pharmaceutical Science - PHA-10032
Describe the structure, fundamental properties and transport across biological membranes, distinguishing the roles played by the lipid and protein components of the membrane	Introduction to Pharmaceutical Science - PHA-10032
Describe the normal anatomy and physiology of various systems within the human body and understand the causes and outcomes of the main types of pathology affecting these systems	Biochemistry & Cell Biology - PHA-10030
Describe the process of drug discovery and development, from target disease to the design and isolation of a pure lead compound for formulation to provide a medicinal product	Biochemistry & Cell Biology - PHA-10030
Describe the underlying principles of quantitative pharmacology in relation to small organic molecules and biomolecules as therapeutic agents, and its relationship to biological processes and pharmaceutical products	Biochemistry & Cell Biology - PHA-10030
Describe the basic aspects of formulation science related to drug distribution and drug action that are important in drug design and development	Biochemistry & Cell Biology - PHA-10030
Describe why a variety of dosage forms are necessary, and the relative merits and demerits of the available forms	Biochemistry & Cell Biology - PHA-10030

Key or Transferable Skills (graduate attributes)	
Learning Outcome	**Module in which this is delivered**
Develop an open and questioning approach to ideas, demonstrating curiosity, independence of thought and the ability to appreciate a range of perspectives on the natural and social worlds	Human Anatomy and Physiology - PHA-10028 Biochemistry & Cell Biology - PHA-10030 Introduction to Pharmaceutical Science - PHA-10032
Develop an appreciation of the development and value of your chosen subjects of study, awareness of their contexts, the links between them, and awareness of the provisional and dynamic nature of knowledge	Human Anatomy and Physiology - PHA-10028 Biochemistry & Cell Biology - PHA-10030 Introduction to Pharmaceutical Science - PHA-10032
Locate, evaluate and synthesise large amounts of frequently conflicting information, ideas and data	Human Anatomy and Physiology - PHA-10028 Biochemistry & Cell Biology - PHA-10030 Introduction to Pharmaceutical Science - PHA-10032

Key or Transferable Skills (graduate attributes)	
Learning Outcome	**Module in which this is delivered**
Creatively to solve problems using a range of different approaches and techniques, and to determine which techniques are appropriate for the issue at hand	Human Anatomy and Physiology - PHA-10028 Biochemistry & Cell Biology - PHA-10030 Introduction to Pharmaceutical Science - PHA-10032
Appreciate the social, environmental and global implications of your studies and other activities, including recognition of any ethical implications	Human Anatomy and Physiology - PHA-10028 Biochemistry & Cell Biology - PHA-10030 Introduction to Pharmaceutical Science - PHA-10032
Communicate clearly and effectively in written and verbal forms for different purposes and to a variety of audiences	Human Anatomy and Physiology - PHA-10028 Biochemistry & Cell Biology - PHA-10030 Introduction to Pharmaceutical Science - PHA-10032
Have the knowledge, skills, self-confidence and self-awareness actively to pursue their future goals	Human Anatomy and Physiology - PHA-10028 Biochemistry & Cell Biology - PHA-10030 Introduction to Pharmaceutical Science - PHA-10032
Have the ability and motivation to participate responsibly and collaboratively as an active citizen in the communities in which you live and work	Human Anatomy and Physiology - PHA-10028 Biochemistry & Cell Biology - PHA-10030 Introduction to Pharmaceutical Science - PHA-10032
Professional and reflective approach, including qualities of leadership, responsibility, personal integrity, empathy, care and respect for others, accountability and self-regulation	Human Anatomy and Physiology - PHA-10028 Biochemistry & Cell Biology - PHA-10030 Introduction to Pharmaceutical Science - PHA-10032
Flexibility to thrive in rapidly changing and uncertain external environments and to update skills and knowledge as circumstances require.	Human Anatomy and Physiology - PHA-10028 Biochemistry & Cell Biology - PHA-10030 Introduction to Pharmaceutical Science - PHA-10032
Outline the process of drug design and development from identification of target to formulation	Introduction to Formulation Science - PHA-10036
Demonstrate knowledge of the basic thermodynamic and kinetic principles that govern the progress of chemical reactions both in vitro and in vivo, including in the context of drug and formulation stability	Introduction to Formulation Science - PHA-10036
Describe the basic aspects of formulation science related to drug distribution and drug action that are important in drug design and development, including why a variety of dosage forms is necessary and the relative merits and demerits of the available forms	Introduction to Formulation Science - PHA-10036
Describe how formulation science can be translated across different, but related, fields and how underpinning knowledge can be applied to different end points	Introduction to Formulation Science - PHA-10036
Describe how the physicochemical properties of molecules affect their formulation into medicines and the route of administration to patients	Introduction to Formulation Science - PHA-10036
Describe and explain biopharmaceutics in terms of the relationship between dosage form and interaction of the drug substance with human physiology	Introduction to Formulation Science - PHA-10036
Determine the purity and composition of compounds using appropriate practical and analytical techniques	Introduction to Formulation Science - PHA-10036
Recognise and apply appropriately the health and safety practices and policies required for a wide range of pharmaceutical science laboratory classes, including appropriate documentation	Introduction to Formulation Science - PHA-10036
Acquire data from experiments, analyse and manipulate it using appropriate techniques, and apply methods for the presentation of data, including statistical analysis and choosing an appropriate method of presentation	Introduction to Formulation Science - PHA-10036

Key or Transferable Skills (graduate attributes)	
Learning Outcome	**Module in which this is delivered**
Demonstrate and apply the appropriate levels of numeracy and IT skills requisite for further study in pharmaceutical science at all levels to perform common scientific calculations with precision and accuracy	Introduction to Formulation Science - PHA-10036
Communicate complex concepts effectively, both orally and in writing in a manner, that reflects professional practice	Introduction to Formulation Science - PHA-10036

Level 5

Subject Knowledge and Understanding	
Learning Outcome	**Module in which this is delivered**
Explain the processes involved in the quality control of all aspects of pharmaceutical drug development, formulation and the manufacturing process.	Pharmaceutical Analysis And Quality Control - PHA-20014
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.	Pharmaceutical Analysis And Quality Control - PHA-20014
Explain the common techniques used in the analysis of biological data to arrive at safe and appropriate drug selection for a patient.	Pharmaceutical Analysis And Quality Control - PHA-20014
Describe the role of pharmaceutical analysis and quality assurance methods in the context of national and international standards and regulatory processes.	Pharmaceutical Analysis And Quality Control - PHA-20014
Describe the processes involved in the quality assurance of all aspects of pharmaceutical drug development, formulation and the manufacturing process, and how they are applied to the development and production of medicines.	Pharmaceutical Analysis And Quality Control - PHA-20014
Explain the relationship between absorption, distribution, metabolism and elimination of drugs and their physicochemical properties and formulation.	Pharmaceutical Analysis And Quality Control - PHA-20014
Compare and evaluate the efficiency and safety of different routes of drug administration.	Pharmaceutical Analysis And Quality Control - PHA-20014
Demonstrate the relationship between the design of drug product formulation, properties of the formulation, in vitro behaviour and in vivo performance.	Pharmaceutical Analysis And Quality Control - PHA-20014
Demonstrate competence in pharmaceutical calculations related to pharmaceutical quality assurance and quality systems.	Pharmaceutical Analysis And Quality Control - PHA-20014
Demonstrate competence in the performance of laboratory techniques in the pharmaceutical sciences and the analysis of data generated therein.	Pharmaceutical Analysis And Quality Control - PHA-20014
Demonstrate knowledge of and apply an integrated approach towards patient care which links pharmaceutical science and pharmaceutical business development.	Applied Pharmaceutical Science I - PHA-20016

Subject Knowledge and Understanding	
Learning Outcome	**Module in which this is delivered**
Explain how physiological patient factors affect the choice of pharmacological agents to treat disease states based upon absorption, distribution, metabolism and excretion data.	Applied Pharmaceutical Science I - PHA-20016
Explain how drug resistance and drug interactions have consequences for pharmaceutical development and patient care.	Applied Pharmaceutical Science I - PHA-20016
Explain the underpinning concepts in physical chemistry and materials science which underpin drug formulation.	Applied Pharmaceutical Science I - PHA-20016
Evaluate and select processes and formulations appropriate to the manufacture of specified drug products.	Applied Pharmaceutical Science I - PHA-20016
Describe the relevance of microbiology within healthcare practice, and the challenges presented by infection in the context of pharmaceutical development and patient care.	Applied Pharmaceutical Science I - PHA-20016
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.	Applied Pharmaceutical Science I - PHA-20016
Demonstrate competence in pharmaceutical calculations related to pharmacology and pharmaceutics.	Applied Pharmaceutical Science I - PHA-20016
Demonstrate knowledge of and apply an integrated approach towards patient care which links pharmaceutical science and pharmaceutical manufacturing.	Applied Pharmaceutical Science II - PHA-20018
Explain how patient physiology and pathophysiology affect the drug choice in the context of absorption, distribution, metabolism and excretion (ADME) models.	Applied Pharmaceutical Science II - PHA-20018
Explain the role of drug resistance and drug interactions in pharmaceutical development.	Applied Pharmaceutical Science II - PHA-20018
Explain the underpinning concepts in physical chemistry and materials science which underpin the formulation of parenteral, solid and semi-solid dosage forms.	Applied Pharmaceutical Science II - PHA-20018
Evaluate and select processes and formulations appropriate to the manufacture and testing of specified parenteral, solid and semi-solid dosage forms.	Applied Pharmaceutical Science II - PHA-20018
Describe the relevance of microbiology within the context of medicinal product quality.	Applied Pharmaceutical Science II - PHA-20018
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.	Applied Pharmaceutical Science II - PHA-20018
Demonstrate competence in pharmaceutical calculations related to pharmacology and pharmaceutics including a focus on parenteral, semi-solid, solid and particulate dose forms, with reference where appropriate to pharmacopoeial standards.	Applied Pharmaceutical Science II - PHA-20018
Recognise the role of the skin in percutaneous absorption, including dermal and transdermal delivery.	Applied Pharmaceutical Science II - PHA-20018

Key or Transferable Skills (graduate attributes)	
Learning Outcome	**Module in which this is delivered**
Develop an open and questioning approach to ideas, demonstrating curiosity, independence of thought and the ability to appreciate a range of perspectives on the natural and social worlds	Pharmaceutical Analysis And Quality Control - PHA-20014 Applied Pharmaceutical Science I - PHA-20016 Applied Pharmaceutical Science II - PHA-20018
Develop an appreciation of the development and value of your chosen subjects of study, awareness of their contexts, the links between them, and awareness of the provisional and dynamic nature of knowledge	Pharmaceutical Analysis And Quality Control - PHA-20014 Applied Pharmaceutical Science I - PHA-20016 Applied Pharmaceutical Science II - PHA-20018
Acquire information literacy: the ability to locate, evaluate and synthesise large amounts of frequently conflicting information, ideas and data	Pharmaceutical Analysis And Quality Control - PHA-20014 Applied Pharmaceutical Science I - PHA-20016 Applied Pharmaceutical Science II - PHA-20018
Develop the ability creatively to solve problems using a range of different approaches and techniques, and to determine which techniques are appropriate for the issue at hand	Pharmaceutical Analysis And Quality Control - PHA-20014 Applied Pharmaceutical Science I - PHA-20016 Applied Pharmaceutical Science II - PHA-20018
Develop an appreciation of the social, environmental and global implications of your studies and other activities, including recognition of any ethical implications	Pharmaceutical Analysis And Quality Control - PHA-20014 Applied Pharmaceutical Science I - PHA-20016 Applied Pharmaceutical Science II - PHA-20018
Develop the ability to communicate clearly and effectively in written and verbal forms for different purposes and to a variety of audiences	Pharmaceutical Analysis And Quality Control - PHA-20014 Applied Pharmaceutical Science I - PHA-20016 Applied Pharmaceutical Science II - PHA-20018
Acquire the knowledge, skills, self-confidence and self-awareness actively to pursue your future goals	Pharmaceutical Analysis And Quality Control - PHA-20014 Applied Pharmaceutical Science I - PHA-20016 Applied Pharmaceutical Science II - PHA-20018
Develop the ability and motivation to participate responsibly and collaboratively as an active citizen in the communities in which you live and work	Pharmaceutical Analysis And Quality Control - PHA-20014 Applied Pharmaceutical Science I - PHA-20016 Applied Pharmaceutical Science II - PHA-20018
Foster a professional and reflective approach, including qualities of leadership, responsibility, personal integrity, empathy, care and respect for others, accountability and self-regulation	Pharmaceutical Analysis And Quality Control - PHA-20014 Applied Pharmaceutical Science I - PHA-20016 Applied Pharmaceutical Science II - PHA-20018
Develop the flexibility to thrive in rapidly changing and uncertain external environments and to update skills and knowledge as circumstances require.	Pharmaceutical Analysis And Quality Control - PHA-20014 Applied Pharmaceutical Science I - PHA-20016 Applied Pharmaceutical Science II - PHA-20018

Level 6

Subject Knowledge and Understanding	
Learning Outcome	**Module in which this is delivered**
Demonstrate a comprehensive understanding of research techniques and self-management skills in order to plan a programme of research at a professional level	Pharmaceutical Science Research Project - PHA-30025
Critically evaluate current research and advanced scholarship relevant to the chosen research area	Pharmaceutical Science Research Project - PHA-30025

Subject Knowledge and Understanding	
Learning Outcome	**Module in which this is delivered**
Demonstrate comprehensive knowledge at the forefront of the project area	Pharmaceutical Science Research Project - PHA-30025
Demonstrate the ability to select and develop a research strategy appropriate to the chosen research area	Pharmaceutical Science Research Project - PHA-30025
Accurately undertake data acquisition in the chosen project area	Pharmaceutical Science Research Project - PHA-30025
Show self-direction and originality in tackling and solving problems	Pharmaceutical Science Research Project - PHA-30025
Produce a document detailing the research carried out and a critical appraisal of the findings, and any conclusions drawn and recommendations or hypotheses made as a consequence	Pharmaceutical Science Research Project - PHA-30025
Communicate progress reports and conclusions on the work carried out to specialist and non-specialist audiences	Pharmaceutical Science Research Project - PHA-30025
Communicate complex concepts effectively, both orally and in writing, in a manner that reflects professional work	Pharmaceutical Science Research Project - PHA-30025
Critically evaluate current research and advanced scholarship and practice in selected specialist topics within the pharmaceutical sciences	Current Developments in Pharmaceutical Science II - PHA-30017 Current Developments in Pharmaceutical Science - PHA-30019
Communicate complex concepts effectively, both orally and in writing, in a manner that reflects professional practice	Current Developments in Pharmaceutical Science II - PHA-30017 Current Developments in Pharmaceutical Science - PHA-30019
Understand systematically and critically appraise the clinical development of pharmaceutical products in the context of global (and hence, harmonisation) marketing, life-cycle management, post-market surveillance and in planning for future products / product extensions	The Pharmaceutical Industry at the Cutting Edge - PHA-30021
Demonstrate an in-depth understanding of global pharmaceutical manufacturing in the context of the total global supply chain, including global and local sourcing strategies, supply operations, outsourcing and supply agreements	The Pharmaceutical Industry at the Cutting Edge - PHA-30021
Demonstrate a systematic understanding and apply knowledge of leading edge topics in global product commercialisation with regard to its principles, limitations, key marketing and promotion principles, (legal and regulatory) codes of conduct and product termination, underpinned by a knowledge and understanding of the application of global patents and protection of intellectual property	The Pharmaceutical Industry at the Cutting Edge - PHA-30021
Demonstrate a systematic understanding and apply the principles of management training in facilitating successful pharmaceutical product development	The Pharmaceutical Industry at the Cutting Edge - PHA-30021
Demonstrate a systematic knowledge of concepts from the forefront of the arena of global pharmaceutical product development, from the key underpinning science to the applied and regulatory context	The Pharmaceutical Industry at the Cutting Edge - PHA-30021

Subject Knowledge and Understanding	
Learning Outcome	**Module in which this is delivered**
Synthesise, evaluate and contextualise the key scientific, legal and business information to generate business proposals and product submission dossiers	The Pharmaceutical Industry at the Cutting Edge - PHA-30021
Demonstrate a systematic understanding of and practice the concepts of working within the complex team-based and inter-disciplinary global pharmaceutical industry	The Pharmaceutical Industry at the Cutting Edge - PHA-30021
Demonstrate an in-depth understanding of the principles of leadership within management teams and practise the application of these concepts within the complex team-based and inter-disciplinary global pharmaceutical industry	The Pharmaceutical Industry at the Cutting Edge - PHA-30021
Communicate complex concepts effectively, both orally and in writing, in a manner that reflects professional work	The Pharmaceutical Industry at the Cutting Edge - PHA-30021
Demonstrate a systematic understanding of the actions of drugs in terms of their interactions with physiological systems	Advanced Topics in Pharmaceutical Science (Pharmacology) - PHA-30041
Demonstrate a detailed knowledge of the use of drugs to correct disorders of physiological systems	Advanced Topics in Pharmaceutical Science (Pharmacology) - PHA-30041
Describe and critically evaluate the role of pharmacotherapy in the management of disease	Advanced Topics in Pharmaceutical Science (Pharmacology) - PHA-30041
demonstrate detailed knowledge of the physicochemical properties of advanced and cutting-edge drug delivery systems and how these properties might influence clinical performance	Advanced Topics in Pharmaceutical Science (Medicinal Chemistry) - PHA-30069
Demonstrate a systematic understanding of the relationship between in vitro properties of drug delivery systems to their in vivo behaviour	Advanced Topics in Pharmaceutical Science (Pharmacology) - PHA-30041
demonstrate a systematic understanding of the relationship between in vitro properties of drug delivery systems and their in vivo behaviour	Advanced Topics in Pharmaceutical Science (Medicinal Chemistry) - PHA-30069
review, consolidate, and extend knowledge and understanding of the chemical properties and methods of production for current and emerging drug delivery systems and NCEs	Advanced Topics in Pharmaceutical Science (Medicinal Chemistry) - PHA-30069
Apply established techniques to acquire laboratory data and critically evaluate data from the literature about the properties of drug delivery systems	Advanced Topics in Pharmaceutical Science (Pharmacology) - PHA-30041
Interpret complex data obtained through experiments to formulate conclusions about the actions of drugs in physiological systems	Advanced Topics in Pharmaceutical Science (Pharmacology) - PHA-30041
Critically evaluate current research and advanced scholarship in pharmaceutical sciences relevant to the chosen research area	Advanced Topics in Pharmaceutical Science (Pharmacology) - PHA-30041
Demonstrate an in-depth understanding of analytic and literature evaluation techniques	Advanced Topics in Pharmaceutical Science (Pharmacology) - PHA-30041
Critically appraise published clinical and experimental data using a structured approach, in order to assess its quality and validity	Advanced Topics in Pharmaceutical Science (Pharmacology) - PHA-30041
Communicate complex concepts effectively, both orally and in writing, in a manner that reflects professional work	Advanced Topics in Pharmaceutical Science (Pharmacology) - PHA-30041

Subject Knowledge and Understanding	
Learning Outcome	**Module in which this is delivered**
apply established techniques to acquire laboratory data and critically evaluate data from the literature about the properties of drug delivery systems and NCEs	Advanced Topics in Pharmaceutical Science (Medicinal Chemistry) - PHA-30069
critically appraise published clinical and experimental data using a structured approach, in order to assess its quality and validity	Advanced Topics in Pharmaceutical Science (Medicinal Chemistry) - PHA-30069
to understand and appraise in a clinically relevant context new approaches to developing novel drug delivery systems including those based on new strategies of chemical synthesis	Advanced Topics in Pharmaceutical Science (Medicinal Chemistry) - PHA-30069
to understand the drug discovery process and how computer-aided drug design (CADD) has been applied to this field.	Advanced Topics in Pharmaceutical Science (Medicinal Chemistry) - PHA-30069
demonstrate a systematic understanding of the relationship between in vitro properties of drug delivery systems to their in vivo behaviour	Advanced Pharmaceutics & Drug Delivery - PHA-30067
Apply knowledge of the physicochemical properties of drugs and formulations to the development of clinically relevant drug delivery systems	Advanced Pharmaceutics & Drug Delivery - PHA-30067
review, consolidate, and extend knowledge and understanding of the physicochemical properties methods of production for current and emerging drug delivery systems	Advanced Pharmaceutics & Drug Delivery - PHA-30067
apply established techniques to acquire laboratory data and critically evaluate data from the literature about the properties of novel drug delivery systems	Advanced Pharmaceutics & Drug Delivery - PHA-30067
critically appraise published clinical and experimental data using a structured approach, in order to assess its quality and validity, with the principal aim of understanding the successes and failures in formulation research and development	Advanced Pharmaceutics & Drug Delivery - PHA-30067
to appreciate and explain how formulations are developed for specific patient groups and the barriers / challenges that exist in the development and marketing of new drug delivery systems for such groups, for example paediatric and geriatric patient groups	Advanced Pharmaceutics & Drug Delivery - PHA-30067

Key or Transferable Skills (graduate attributes)	
Learning Outcome	**Module in which this is delivered**
An open and questioning approach to ideas, demonstrating curiosity, independence of thought and the ability to appreciate a range of perspectives on the natural and social worlds	Current Developments in Pharmaceutical Science II - PHA-30017 Current Developments in Pharmaceutical Science - PHA-30019 The Pharmaceutical Industry at the Cutting Edge - PHA-30021 Pharmaceutical Science Research Project - PHA-30025 Advanced Topics in Pharmaceutical Science (Pharmacology) - PHA-30041 Modern Biotherapeutics - PHA-30057 Advanced Pharmaceutics & Drug Delivery - PHA-30067 Advanced Topics in Pharmaceutical Science (Medicinal Chemistry) - PHA-30069

Key or Transferable Skills (graduate attributes)	
Learning Outcome	**Module in which this is delivered**
An appreciation of the development and value of your chosen subjects of study, awareness of their contexts, the links between them, and awareness of the provisional and dynamic nature of knowledge	Current Developments in Pharmaceutical Science II - PHA-30017 Current Developments in Pharmaceutical Science - PHA-30019 The Pharmaceutical Industry at the Cutting Edge - PHA-30021 Pharmaceutical Science Research Project - PHA-30025 Advanced Topics in Pharmaceutical Science (Pharmacology) - PHA-30041 Modern Biotherapeutics - PHA-30057 Advanced Pharmaceutics & Drug Delivery - PHA-30067 Advanced Topics in Pharmaceutical Science (Medicinal Chemistry) - PHA-30069
Information literacy: the ability to locate, evaluate and synthesise large amounts of frequently conflicting information, ideas and data	Current Developments in Pharmaceutical Science II - PHA-30017 Current Developments in Pharmaceutical Science - PHA-30019 The Pharmaceutical Industry at the Cutting Edge - PHA-30021 Pharmaceutical Science Research Project - PHA-30025 Advanced Topics in Pharmaceutical Science (Pharmacology) - PHA-30041 Modern Biotherapeutics - PHA-30057 Advanced Pharmaceutics & Drug Delivery - PHA-30067 Advanced Topics in Pharmaceutical Science (Medicinal Chemistry) - PHA-30069
The ability creatively to solve problems using a range of different approaches and techniques, and to determine which techniques are appropriate for the issue at hand	Current Developments in Pharmaceutical Science II - PHA-30017 Current Developments in Pharmaceutical Science - PHA-30019 The Pharmaceutical Industry at the Cutting Edge - PHA-30021 Pharmaceutical Science Research Project - PHA-30025 Advanced Topics in Pharmaceutical Science (Pharmacology) - PHA-30041 Modern Biotherapeutics - PHA-30057 Advanced Pharmaceutics & Drug Delivery - PHA-30067 Advanced Topics in Pharmaceutical Science (Medicinal Chemistry) - PHA-30069
An appreciation of the social, environmental and global implications of your studies and other activities, including recognition of any ethical implications	Current Developments in Pharmaceutical Science II - PHA-30017 Current Developments in Pharmaceutical Science - PHA-30019 The Pharmaceutical Industry at the Cutting Edge - PHA-30021 Pharmaceutical Science Research Project - PHA-30025 Advanced Topics in Pharmaceutical Science (Pharmacology) - PHA-30041 Modern Biotherapeutics - PHA-30057 Advanced Pharmaceutics & Drug Delivery - PHA-30067 Advanced Topics in Pharmaceutical Science (Medicinal Chemistry) - PHA-30069

Key or Transferable Skills (graduate attributes)	
Learning Outcome	**Module in which this is delivered**
The ability to communicate clearly and effectively in written and verbal forms for different purposes and to a variety of audiences	Current Developments in Pharmaceutical Science II - PHA-30017 Current Developments in Pharmaceutical Science - PHA-30019 The Pharmaceutical Industry at the Cutting Edge - PHA-30021 Pharmaceutical Science Research Project - PHA-30025 Advanced Topics in Pharmaceutical Science (Pharmacology) - PHA-30041 Modern Biotherapeutics - PHA-30057 Advanced Pharmaceutics & Drug Delivery - PHA-30067 Advanced Topics in Pharmaceutical Science (Medicinal Chemistry) - PHA-30069
The knowledge, skills, self-confidence and self-awareness actively to pursue your future goals	Current Developments in Pharmaceutical Science II - PHA-30017 Current Developments in Pharmaceutical Science - PHA-30019 The Pharmaceutical Industry at the Cutting Edge - PHA-30021 Pharmaceutical Science Research Project - PHA-30025 Advanced Topics in Pharmaceutical Science (Pharmacology) - PHA-30041 Modern Biotherapeutics - PHA-30057 Advanced Pharmaceutics & Drug Delivery - PHA-30067 Advanced Topics in Pharmaceutical Science (Medicinal Chemistry) - PHA-30069
The ability and motivation to participate responsibly and collaboratively as an active citizen in the communities in which you live and work	Current Developments in Pharmaceutical Science II - PHA-30017 Current Developments in Pharmaceutical Science - PHA-30019 The Pharmaceutical Industry at the Cutting Edge - PHA-30021 Pharmaceutical Science Research Project - PHA-30025 Advanced Topics in Pharmaceutical Science (Pharmacology) - PHA-30041 Modern Biotherapeutics - PHA-30057 Advanced Pharmaceutics & Drug Delivery - PHA-30067 Advanced Topics in Pharmaceutical Science (Medicinal Chemistry) - PHA-30069
A professional and reflective approach, including qualities of leadership, responsibility, personal integrity, empathy, care and respect for others, accountability and self-regulation	Current Developments in Pharmaceutical Science II - PHA-30017 Current Developments in Pharmaceutical Science - PHA-30019 The Pharmaceutical Industry at the Cutting Edge - PHA-30021 Pharmaceutical Science Research Project - PHA-30025 Advanced Topics in Pharmaceutical Science (Pharmacology) - PHA-30041 Modern Biotherapeutics - PHA-30057 Advanced Pharmaceutics & Drug Delivery - PHA-30067 Advanced Topics in Pharmaceutical Science (Medicinal Chemistry) - PHA-30069

Key or Transferable Skills (graduate attributes)	
Learning Outcome	**Module in which this is delivered**
The flexibility to thrive in rapidly changing and uncertain external environments and to update skills and knowledge as circumstances require	Current Developments in Pharmaceutical Science II - PHA-30017 Current Developments in Pharmaceutical Science - PHA-30019 The Pharmaceutical Industry at the Cutting Edge - PHA-30021 Pharmaceutical Science Research Project - PHA-30025 Advanced Topics in Pharmaceutical Science (Pharmacology) - PHA-30041 Modern Biotherapeutics - PHA-30057 Advanced Pharmaceutics & Drug Delivery - PHA-30067 Advanced Topics in Pharmaceutical Science (Medicinal Chemistry) - PHA-30069

9. Final and intermediate awards

Credits required for each level of academic award are as follows:

Honours Degree	360 credits	You will require at least 120 credits at levels 4, 5 and 6 You must accumulate at least 270 credits in your main subject (out of 360 credits overall), with at least 90 credits in each of the three years of study, to graduate with a named single honours degree in this subject. In addition, students whose credits include 60 credits for modules provided by the language centre can, depending on the CEFR-level of those modules, be additionally awarded the notation on their degree certificate of "with competency" or "with advanced competency" in their chosen language. In addition, students who have taken and completed the placement year will have an additional notation on their degree to state that they have completed this module / element of study.
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

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. The following list is representative of the variety of assessment methods used on your programme:

- The assessments used in this programme reflect a wide range of academic practice and are also designed to be relevant to the needs of the industry. For example, the synoptic assessment collates and integrates learning across science and business at Level Five of the programme, whilst the use of batch record sheets in laboratory sessions reflect practice in industry (pharmaceutical and otherwise). The main modes of assessment are examinations (essay-based, short-answer questions and multiple choice questions), laboratory practical exercises (with associated report-writing and documentation completion, as well as physical sample preparation and analysis), workshops (including pharmaceutical calculations), group and individual presentations and synoptic exercises.

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.

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)	24.7%	75.3%	0%
Year 2 (Level 5)	27.9%	72.1%	0%
Year 3 (Level 6)	30.7%	69.3%	0%

12. Accreditation

This programme is not currently accredited by an external body. However, discussions have begun with the Academy of Pharmaceutical Sciences to begin the process of accreditation at a suitable time. Students will be updated as appropriate to any changes in the status of these processes.

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/

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 Science Foundation Year (SFY) programme. Progression from the SFY to the first year of the BSc Pharmaceutical Science programme requires students to achieve a minimum of 60% overall and in each module studied.

Applicants for whom English is not a first language must provide evidence of a recognised qualification in English language. The minimum score for entry to the Programme is Academic IELTS 7.0 overall, with a minimum of 6.5 in each sub-component, or equivalent.

English for Academic Purposes

Please note: All new international students entering the university will provide a sample of Academic English during their registration Using this sample, the Language Centre may allocate you to an English language module which will become compulsory. This will replace any GCP modules. *NB:* students can take an EAP module only

with the approval of the English Language Programme Director and are not able to take any other Language modules in the same academic year.

English Language Modules at Level 4:

- Business - ENL-90003 Academic English for Business Students (Part 1); ENL-90004 Academic English for Business Students (2)
- Science - ENL-90013 Academic English for Science Students
- General - ENL-90006 English for Academic Purposes 2; ENL-90001 English for Academic Purposes 3; ENL-90002 English for Academic Purposes 4

English Language Modules at Level 5:

- Business - ENL-90003 Academic English for Business Students (Part 1); ENL-90004 Academic English for Business Students (2)
- Science - ENL-90013 Academic English for Science Students
- General - ENL-90006 English for Academic Purposes 2; ENL-90001 English for Academic Purposes 3; ENL-90002 English for Academic Purposes 4

English Language Modules at Level 6:

- Business - ENL-90003 Academic English for Business Students (Part 1); ENL-90004 Academic English for Business Students (2); ENL-90005 Advanced Business English Communication
- Science - ENL-90013 Academic English for Science Students
- General - ENL-90006 English for Academic Purposes 2; ENL-90001 English for Academic Purposes 3; ENL-90002 English for Academic Purposes 4

Recognition of Prior Learning (RPL) is considered on a case-by-case basis and those interested should contact the Programme Director. The University's guidelines on this can be found here: https://www.keele.ac.uk/qa/programmesandmodules/recognitionofpriorlearning/

15. How are students supported on the programme?

Keele Online Learning Environment

New students will be assigned a username and password that provides access to the main University network, email and the Internet. Keele Learning Environment (KLE) - The KLE is used by Keele to provide every student and member of staff with a personal teaching and learning workspace that can be accessed through the internet. This is where you will find all the teaching materials that are associated with the course. You will also find copies of all the BSc Pharmaceutical Science guidance documents and a section where you can access careers support information, as well as the teaching materials for the BSc course.

You should regularly access the KLE, ideally on a daily basis, since it provides the most accurate and up-to-date information with regard to your course. Online information and support for the KLE can be found here: https://www.keele.ac.uk/students/kle/.

New students will be provided with log-in details and an introductory session on the use of the KLE soon after registration.

Communication with Students

The School for Allied Health Professions and Pharmacy and other University services will contact you intermittently with important information related to your studies. The primary channel for communication will be your Keele email address. It is expected that you will check your Keele email regularly, and you are responsible for reading University emails and taking action if appropriate. The secondary channel for communication is through the post so please ensure that you keep your address details up-to-date on SCIMS. This information may include details of assessments and notification of changes to teaching sessions. The School for Allied Health Professions and Pharmacy will not send information to any personal email addresses.

Sources of help and advice

You will find that all staff associated with the School for Allied Health Professions and Pharmacy are friendly and approachable, and you should not feel worried or inhibited about going to see them at any time. Please do not hesitate to contact your Academic Mentor, module or programme lead, the Director of Education or, if you prefer, any other member of staff if you require help or advice on any matter that affects your academic progress or any other aspect of your life at Keele.

There is a wide spectrum of support available to students on the Pharmaceutical Science programme. These range from the institution-level student support services to the specific one-to-one support offered by the academic mentoring system. Every student is allocated to an academic member of staff, normally based within the School, to act as an academic mentor at the start of their studies. Academic mentors (see section below)

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, academic mentors 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. The School also has an academic staff member who is the Student Engagement and Retention Lead; their role is to work with other university services, described below, to support students.

Each School has a Student Experience and Support Officer (SECO). The SESO's role is to help support students with their studies, and further information can be found at:
https://www.keele.ac.uk/students/studentservices/studentexperienceandsupport/

The university Disability Support & Inclusion Team work with staff across the university to provide students with the individual support they may need during their studies at Keele. They can be contacted in various ways, and further information can be found at their website:
https://www.keele.ac.uk/students/lifeoutsideofstudy/disabilitysupportandinclusion/

In the first instance, each Faculty within the university has a designated Disability Adviser, and they are normally your first port of call for support.

To support students in finding employment or courses for further study, 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.

Academic Mentors

Your Academic Mentor is a first point of contact for general guidance on academic and career development and, in consultation with yourself, may refer you to specialist academic support services within the University. Your Academic Mentor can also provide advice, support and general guidance on non-academic issues or, again, in consultation with yourself refer you to pastoral support services within the University, where necessary. Your Academic Mentor will be a member of staff associated with the School for Allied Health Professions and Pharmacy.

It is important that you inform your Academic Mentor or the year / module tutor of any circumstances, medical or otherwise, that may affect your academic work.

Your Academic Mentor may have particular office hours or you may have to arrange an appointment; you should contact your Academic Mentor by telephone or email if you wish to discuss a particular issue but do not hesitate to approach your Mentor immediately if there is a problem that you wish to discuss urgently. If you cannot contact your Academic Mentor, you may contact the Student Engagement and Retention Lead, Dr David Morgan, who oversees the Academic Mentoring system for the BSc programme. You can find the University's Code of Practice for Academic Mentoring at:
https://www.keele.ac.uk/policyzone/data/academicmentoringcodeofpractice/

Reference requests

You should always give the name and contact details of your Academic Mentor if you are asked to provide a contact for references when applying for jobs. It is courteous always to let your Mentor know each time that you give their contact details to someone, so that they are aware that they may be approached.

Your first point of contact should always be your Academic Mentor, but you may also approach other members of the academic staff to write a reference for you but only if more than one academic reference is required or if your Mentor is unable to provide a reference. In these circumstances you must ask the permission of that person in advance. In addition to being a professional courtesy, this is to ensure that staff members are aware that they may be approached by employers.

Your Mentor or other referees will ensure that it is as accurate as possible and will familiarise themselves with both your academic performance and the levels of application and professionalism that you have demonstrated during your time on the course. Please note that if your attendance record is poor or if you have been found guilty of academic misconduct or unprofessional behaviour then this may be reflected in your reference, and hence may jeopardise your chance of success with your application. You should note that nowadays employers routinely ask whether students have been subject to fitness to practise investigations.

Progress interviews with your Academic Mentor

If you are new to the programme you will be introduced to your Academic Mentor in your second week.

All students will meet regularly with Academic Mentors throughout their time at Keele. There will be reminders in your timetable when the meetings are due throughout the year. The meetings are to give feedback on your academic progress, and to give you the opportunity to raise any matters of concern.

Meetings with your Mentor are treated in confidence. A note of the meeting will be kept on your personal record but access to this is limited. If it is necessary to keep details of sensitive information, such as medical conditions relating to missed assessments, then access to this type of information is strictly limited.

Additional help and Guidance

Additional information relating to student welfare and support can be found through:

Advice and Support at Keele - ASK

Located on the ground floor of KeeleSU (the Students' Union), ASK delivers independent advice on a whole range of issues, including academic, health, family, wellbeing, accommodation, finance, legal, international and employment. The advice and support that ASK offers is free, confidential, non-judgemental and impartial. Our trained Education and Welfare Advisors are here to help, just ASK. For more information, please visit www.keelesu.com/advice or come and see us between Mon-Fri 10.00am to 12.30pm and 1.00pm to 4.00pm.

16. Learning Resources

The PC suite in the Atrium of the Lennard-Jones laboratories is available during normal working hours and evenings. The PCs run a variety of programs relevant to the Pharmacy programme and you can access the Internet and email, but please show consideration for other users and don't spend excessive periods on social activities. You can also print lecture notes and laboratory scripts from these computers. You must not eat, drink or use a mobile telephone in the PC suite. Photocopiers for student use are available in the University Library.

The University Library

The University Library's mission is to provide effective access to all forms of academic information in support of the University's teaching, learning and research. We have two Library sites, the main Campus Library and the Health Library at the Royal Stoke Hospital. We offer over 1,100 study spaces and extensive opening hours - the Campus Library is open 24/7 during semester and the Health Library seven days a week all year (except bank holidays). Students can work in a variety of study environments, ranging from group to silent study, and can also book rooms for either purpose. There's also a refreshment area in the Campus Library, and Wi-Fi access is available on both our sites. Our academic collections are provided both online and in print. We subscribe to around 20,000 e-journals, 300,000 e-books and have over 600,000 items on our shelves. Students can access many reading lists online, and our "Catalogue Plus" service can be used to find relevant information both in print and online via a single easy-to-use web catalogue. Books can normally be borrowed for two weeks, one week or one day, depending on demand for the title. Students can get help from our staff at the Library's InfoPoint, and throughout the year. Liaison Librarians provide an extensive range of training tailored to help students with their research and information skills. Find out more about our services from our website: http://www.keele.ac.uk/library/. Accessing e-journals off campus - Access to Keele's e-resources is through your Keele username and password. When you reach the journal home page look out for a link called "institutional log-in" or "Shibboleth log-in", select the UK Federation and then Keele University and log in using your IT Account username and password (the log-in you use to access the Campus network) when you reach the usual yellow Keele log-in screen. Visit http://www.keele.ac.uk/library/support/access/ for more information, including our Off-campus Access Step by Step guide and a series of short you-tube videos to assist with off-campus log-ins to each individual publisher.

Please note that past examination papers from the BSc Pharmaceutical Science programme are currently not made available via the library, or from any other source. While it is important that you are familiar with the format of exams and assessments, when it comes to passing it is much more important that you understand the material that you have learned in the module. Sample questions and / or sample exam papers will be made available via the KLE where appropriate to ensure that students are familiar with the style of questions used in any given exam paper. If you have any comments concerning the provision of materials in the University Library you should ask your representative on the SSVC to raise the matter at a BSc Pharmaceutical Science Course Committee meeting.

IT Services

IT Services are responsible for your IT systems and networks throughout the University. The services include the wireless network, printing service, IT Suite and Labs, Laptop Loan and Laptop repair service. They provide help and advice on using Keele Systems such as the Keele Learning Environment, eVision, Office software or Outlook Mail and apps and advice when connecting to the wireless network (eduroam). Eduroam is now available at the Royal Stoke Hospital site, enabling student access to the internet whilst on placement.

The IT Service Desk is the first point of call for anything IT related. It is based in the Campus Library and IT Services building and is open 7 days per week throughout the Semester. For further information regarding IT Services, or to report a problem or seek advice please visit www.keele.ac.uk/it.

Within the School for Allied Health Professions and Pharmacy there is a team of IT technicians who are responsible for the day-to-day IT needs of the School, including network issues and more specialised software

used by the School. They can be contacted at pharmacy.it@keele.ac.uk

Remember when using Keele University IT systems that you are bound by the IT Conditions of Use, a link which can be found at: www.keele.ac.uk/it. It is important that you familiarise yourself with these to ensure that you use the systems within the terms of the Acceptable Use Policy.

Keep yourself safe whilst online:

- Make sure that before connecting to the network your antivirus, web browser and operating system are all up to date.
- Protect your personal information. Secure your account by changing your password to something that is memorable but secure, a combination of capital and lowercase letter.
- Ensure that your online presence, particularly in social media, has the security set to a level you are comfortable with.
- If you receive an email or message that sounds too good to be true you are probably best deleting it. Do not give out personal information to a non-accredited website or link.

If in doubt about staying safe whilst online, check with someone you can trust like IT Services.

17. Other Learning Opportunities

Study abroad (semester)

Students on the programme have the potential opportunity to spend a semester abroad in their second year studying at one of Keele's international partner universities. Please note that students cannot take both a Global Challenge Pathway (GCP) and the semester abroad option.

Exactly which countries are available depends on the student's choice of degree subjects. An indicative list of countries is on the website (http://www.keele.ac.uk/studyabroad/partneruniversities/); however this does not guarantee the availability of study in a specific country as this is subject to the University's application process for studying abroad.

No additional tuition fees are payable for a single semester studying abroad but students do 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 to 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.

Whilst students are studying abroad any Student Finance eligibility will continue, where applicable students may be eligible for specific travel or disability grants. Students who meet external eligibility criteria may be eligible for grants as part of this programme. Students studying outside of this programme may be eligible for 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.

18. Additional Costs

Mandatory costs

You can expect some additional costs as a student on this course, which may support learning activities, specialist equipment, fieldwork,¿placements, or other course-related requirements. Details of these mandatory costs are outlined below to help you plan accordingly.¿

Laboratory coat and spectacles: £25

Students may also incur general expenses related to university study, such as for printing, textbooks and other materials. Students who undertake a placement may be responsible for additional costs, such as travel, accommodation, and subsistence costs. For further information, please refer to the additional costs information.¿

As to be expected there will be additional costs for inter-library loans and potential overdue library fines, print costs and graduation.

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%.

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 Revalidation 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 three 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/

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:

a. UK Quality Code for Higher Education, Quality Assurance Agency for Higher Education:
http://www.qaa.ac.uk/quality-code
b. Keele University Regulations and Guidance for Students and Staff: http://www.keele.ac.uk/regulations

21. Annex - International Year

BSc (Hons) Pharmaceutical Science title with International Year

International Year Programme
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. 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. 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.
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 55% 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 55% across all Level 5 modules. Students with up to 15 credits of re-assessment who meet the 55% requirement may progress to the International Year. 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 Academic Mentor, 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 online (e.g. Teams) conversations with Study Abroad tutor, in line with recommended Academic Mentoring 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.

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 who meet external eligibility criteria 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

BSc (Hons) Pharmaceutical Science with Work Placement Year

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. The Work Placement Module enhances employability for students on the Pharmaceutical and / or Cosmetic Science programmes by providing valuable industry exposure. Available to students who have completed their second year, this module integrates academic learning with practical experience through a work placement.
2. During the second year of study, students actively secure their own placements, taking ownership of their career path. They improve job-hunting skills by finding placements and tailoring applications and CVs to each employer's specific needs. While the Programme Director (or their nominee) provides support throughout the recruitment process, individual effort and engagement from students are crucial. This emphasis on personal responsibility and proactivity prepares students for the professional world of work. The placement lasts 9-12 months, with a minimum commitment of 21 hours per week over 24 weeks.
3. Successful completion leads to a degree qualification in Pharmaceutical Science with Placement Experience or Cosmetic Science with Placement Experience. The placement year is not credit-bearing; students return to complete their third-year curriculum and project.

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.

The aim of the placement year for undergraduate students enrolled on the Pharmaceutical and / or Cosmetic Science programmes is to provide them with graduate-level work experience lasting approximately 9-12 months. During this time, students will develop skills relevant to their program of study and gain sector knowledge while cultivating the professional attitude needed in the work environment.

The module-specific aims (PHA-30065) are:

1. Demonstrate the application of academic knowledge from pharmaceutical or cosmetic sciences to "real world" scenarios in research, industrial, or professional environments through practical projects and activities.
2. Apply their knowledge and practical skills in pharmaceutical science to evidence competence in a workplace setting, with a focus on accurately recording and documenting their work and training.
3. Provide evidence of accurate and compliant documentation practices within their workplace environment, adhering to the requirements of their employer's quality systems.
4. Students will demonstrate the ability to listen attentively and respond appropriately, present information effectively to groups, produce clear and structured written content and give and receive constructive feedback within a professional setting.
5. Appreciate the importance of working effectively, reliably, honestly, diplomatically as an individual or as part of a team.
6. Comprehend the concepts of occupational health, safety requirements and procedures and employee welfare.

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 5 weeks after the 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. Understand how academic studies in Pharmaceutical and / or Cosmetic Science are reflected in the research,
   industrial, or professional environment.
2. Apply their knowledge and practical skills for an extended period of time.
3. Improve competences in documenting results and appreciate their importance in a research work environment.
4. Expand their written and oral skills.
5. Appreciate the importance of working effectively, reliably, honestly, diplomatically as an individual or as part of a team.
6. Comprehend the concepts of occupational health, safety requirements and procedures and employee welfare.

These learning outcomes will be assessed through the non-credit bearing Work Placement Year module (PHA-30065) which involves:

1. CV writing
2. Presentation
3. Report

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 'Work Placement for Pharmaceutical & Cosmetic Science Programmes' module (PHA-30065)
- 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.

Version History

This document

Date Approved: 01 April 2026

Previous documents

Version No	Year	Owner	Date Approved	Summary of and rationale for changes
1.1	2025/26	GARY MOSS	26 September 2025	PHA-20016 and PHA-20018 amended to SEM1-2
1	2025/26	GARY MOSS	07 April 2025	PHA-30055 Oncology I and PHA-30059 Oncology II added as optional modules
1	2024/25	GARY MOSS	03 June 2024	PHA-10038 added.
1.1	2023/24	GARY MOSS		N/A
1	2023/24	GARY MOSS	04 July 2023	