

Course Specification

Published Date:	15-Sep-2017
Produced By:	Debbie Collymore
Status:	Validated

Core Information

Awarding Body / Institution:	University of Wolverhampton		
School / Institute:	School of Pharmacy		
Course Code(s):	PY001H01UV PY001H31UV	Full-time Part-Time	3 Years 6 Years
Course Title:	BSc(Hons) Pharmacology		
Hierarchy of Awards:	Bachelor of Science with Honours Pharmacology Bachelor of Science Pharmacology Diploma of Higher Education Pharmacology Certificate of Higher Education Pharmacology University Statement of Credit University Statement of Credit		
Language of Study:	English		
Date of DAG approval:	30/Jun/2017		
Last Review:	2014/5		
Course Specification valid from:	2010/1		
Course Specification valid to:	2020/1		

Academic Staff

Course Leader:	Dr Stephen Anderson
Head of Department:	Dr Stephen Britland

Course Information

Location of Delivery:	University of Wolverhampton
Category of Partnership:	Not delivered in partnership
Teaching Institution:	University of Wolverhampton
Open / Closed Course:	This course is open to all suitably qualified candidates.

Entry Requirements:

Entry requirements are subject to regular review. The entry requirements applicable to a particular academic year will be published on the University website (and externally as appropriate e.g. UCAS)

Entry requirements for BSc Pharmacology:

GCSE – Applicants will normally be expected to hold GCSE English Language and Maths at grade C+/4 or equivalent

A-Level minimum of BB or CDD to include Chemistry or Biology at grade C

BTEC Extended Diploma in Applied Science with minimum MMP

BTEC Diploma in Applied Science with DM

Access to HE Diploma with 60 credits overall, 45 level 3 credits, of which 18 will be passed with minimum Merit and include Maths, Chemistry and Biology.

Scottish Highers – CDDDD

(equates to 81 points)

International Baccalaureate: - 28+ overall with a minimum of 5 in higher level biology plus a minimum of 4 in two additional higher level subjects to include one other science subject preferably chemistry or further maths

Successful completion of the foundation year of our BSc (Hons) Science and Engineering with Foundation Year guarantees entry on to this course

Other entry qualifications may be acceptable and will be considered on an individual basis.

Distinctive Features of the Course:

Pharmacology is long established within the Faculty of Science and Engineering and is underpinned by active areas of research in peptide pharmacology, vascular pharmacology and CNS pharmacology. You will be taught using an integrated approach across all three years of the course which will equip you for the diverse career pathways available to you.

Educational Aims of the Course:

The BSc pharmacology course will provide you with a range of progressive, coherent and challenging learning opportunities informed by research, scholarly activity and appropriate development of skills. Specifically, the course will provide you with a deep-rooted understanding of the fundamental principles of chemistry and biology as applicable to pharmacology. You will gain an understanding of normal and abnormal bodily function, the biology of disease (aetiology and epidemiology) and the absorption, distribution, metabolism and excretion of medicines and their actions (interactions, adverse reactions and misuse) and therapeutic uses. You will also be supported in the development of intellectual and key interpersonal skills as well as subject knowledge that will equip you for life-long learning and employability. You will be eligible to transfer over to MSci Pharmacology Science course providing you attain a 2:2 standard by the end of level 5.

The course aims to produce high quality pharmacology graduates with the generic, subject-specific and transferable knowledge and skills suited to a career in the pharmaceutical industry or other related laboratory-based scientific disciplines. You will have the opportunity to study the Wolverhampton Employability Award up to gold level. You will also be supported in seeking placement opportunities either as a sandwich year or over the summer vacation.

Intakes:

September

Major Source of Funding:

HE FUNDING COUNCIL FOR ENGLAND (HEFCE)

Tuition Fees:

Tuition fees are reviewed on an annual basis. The fees applicable to a particular academic year will be published on the University website.

Year	Status	Mode	Amount
2017/8	H	Full Time / Sandwich	£9250.00
2017/8	EU	Full Time / Sandwich	£9250.00
2017/8	Overseas	Full Time / Sandwich	£11475.00
2017/8	H	Part Time	£2835.00
2017/8	EU	Part Time	£2835.00
2017/8	Overseas	Part Time	£5738.00

PSRB:

None

Course Structure:

September (Full-Time)

Module	Title	Credits	Period	Type
4PY014	Pharmacology and Toxicology	20	SEM1	Core
4BM004	Human Structure and Function	20	SEM1	Core
4PY012	Scientific Communication and Undergraduate Development	20	SEM1	Core
4PY013	Molecular Basis of Life	20	SEM2	Core
4PY008	Introduction to Microbiology	20	SEM2	Core
4PY009	Principles of Drug Action	20	SEM2	Core
5BC001	Molecular Biosciences	20	SEM1	Core
5PY017	Pharmaceutical Microbiology	20	SEM1	Core
5PY010	Therapeutic Pharmacology	20	SEM1	Core
5PY016	Experimental Pharmacology	20	SEM2	Core
5PY018	Drug Design and Development	20	SEM2	Core
5PY024	Further Therapeutic Pharmacology	20	SEM2	Core
6PY004	Honours Project (Pharmaceutical Sciences and Pharmacology)	40	YEAR	Core
6BC002	Gene Manipulation and Bioinformatics	20	SEM1	Core
6PY002	Pharmaceutical Biotechnology and Molecular Biology	20	SEM1	Core
6PY007	Current Advances in Pharmacology	20	SEM2	Core
6PY006	Biochemical Pharmacology	20	SEM2	Core

Continuing students will follow the programme indicated below:

September (Full-Time)

Module	Title	Credits	Period	Type
4PY014	Pharmacology and Toxicology	20	SEM1	Core
4BM004	Human Structure and Function	20	SEM1	Core
4PY012	Scientific Communication and Undergraduate Development	20	SEM1	Core
4PY013	Molecular Basis of Life	20	SEM2	Core
4PY008	Introduction to Microbiology	20	SEM2	Core
4PY009	Principles of Drug Action	20	SEM2	Core
5BC001	Molecular Biosciences	20	SEM1	Core
5PY017	Pharmaceutical Microbiology	20	SEM1	Core
5BC002	Proteins	20	SEM1	Core
5PY016	Experimental Pharmacology	20	SEM2	Core
5PY018	Drug Design and Development	20	SEM2	Core
5PY010	Therapeutic Pharmacology	20	SEM2	Core
6PY004	Honours Project (Pharmaceutical Sciences and Pharmacology)	40	YEAR	Core
6BC002	Gene Manipulation and Bioinformatics	20	SEM1	Core
6PY002	Pharmaceutical Biotechnology and Molecular Biology	20	SEM1	Core
6PY007	Current Advances in Pharmacology	20	SEM2	Core
6PY006	Biochemical Pharmacology	20	SEM2	Core

Learning, Teaching and Assessment

Academic Regulations Exemption:

N/A

Reference Points:

- Quality Code - [Part A: Setting and Maintaining Academic Standards](#). Including :
- [Qualifications Frameworks](#)
- [Characteristics Statements](#)
- [Credit Frameworks](#)
- [Subject Benchmark Statements](#) - QAA Benchmarks for Pharmacy:
<http://www.qaa.ac.uk/academicinfrastructure/benchmark/honours/pharmacy>
- British Pharmacological Society Indicative Syllabus 2004
- Quality Code - [Part B: Assuring and Enhancing Academic Quality](#)
- [University Policies and Regulations](#)
- [Equality Act \(2010\)](#)

Learning Outcomes:

CertHE Course Learning Outcome 1 (CHECLO1)

"Demonstrate knowledge of the underlying concepts and principles associated with your area(s) of study, and

an ability to evaluate and interpret these within the context of that area of study"

CertHE Course Learning Outcome 2 (CHECLO2)

"Demonstrate an ability to present, evaluate and interpret qualitative and quantitative data, in order to develop lines of argument and make sound judgements in accordance with basic theories and concepts of your subject(s) of study."

CertHE Course Learning Outcome 3 (CHECLO3)

Evaluate the appropriateness of different approaches to solving problems related to your area(s) of study and/or work

CertHE Course Learning Outcome 4 (CHECLO4)

"Communicate the results of your study/work accurately and reliably, and with structured and coherent arguments"

CertHE Course Learning Outcome 5 (CHECLO5)

Demonstrate the qualities and transferable skills necessary for employment requiring the exercise of some personal responsibility

DipHE Course Learning Outcome 1 (DHECLO1)

"Demonstrate knowledge and critical understanding of the well-established principles of your area(s) of study, and of the way in which those principles have developed with an understanding of the limits of your knowledge, and how this influences analyses and interpretations based on that knowledge."

DipHE Course Learning Outcome 2 (DHECLO2)

"Demonstrate the ability to apply underlying concepts and principles outside the context in which they were first studied, including, where appropriate, the application of those principles in an employment context"

DipHE Course Learning Outcome 3 (DHECLO3)

"Demonstrate knowledge of the main methods of enquiry in the subject(s) relevant to the named award, and ability to evaluate critically the appropriateness of different approaches to solving problems in the field of study"

DipHE Course Learning Outcome 4 (DHECLO4)

"Use a range of established techniques to initiate and undertake critical analysis of information, and to propose solutions to problems arising from that analysis"

DipHE Course Learning Outcome 5 (DHECLO5)

"Effectively communicate information, arguments and analysis in a variety of forms to specialist and non-specialist audiences, and deploy key techniques of the discipline effectively"

DipHE Course Learning Outcome 6 (DHECLO6)

"Demonstrate the qualities and transferable skills necessary for employment, requiring the exercise of personal responsibility and decision-making and undertake further training, developing existing skills and acquire new competences that will enable them to assume significant responsibility within organisations."

Ordinary Course Learning Outcome 1 (ORDCLO1)

"Demonstrate a systematic understanding of key aspects of pharmacology, including acquisition of coherent and detailed knowledge, at least some of which is at, or informed by, the forefront of defined aspects of a discipline with an appreciation of the uncertainty, ambiguity and limits of knowledge"

Ordinary Course Learning Outcome 2 (ORDCLO2)

"Demonstrate an ability to deploy accurately established techniques of analysis and enquiry within pharmacology and apply the methods and techniques that they have learned to review, consolidate, extend and apply your knowledge and understanding, and to initiate and carry out projects."

Ordinary Course Learning Outcome 3 (ORDCLO3)

"Demonstrate conceptual understanding that enables the student: A) to devise and sustain arguments, and/or to solve problems, using ideas and techniques, some of which are at the forefront of a discipline. B) to describe and comment upon particular aspects of current research, or equivalent advanced scholarship, in the discipline."

Ordinary Course Learning Outcome 4 (ORDCLO4)

"Demonstrate the ability to manage your own learning, and to make use of scholarly reviews and primary sources (for example, refereed research articles and/or original materials appropriate to the discipline) and communicate information, ideas, problems and solutions to both specialist and non-specialist audiences."

Ordinary Course Learning Outcome 5 (ORDCLO5)

"Critically evaluate arguments, assumptions, abstract concepts and data (that may be incomplete), to make judgements, and to frame appropriate questions to achieve a solution - or identify a range of solutions - to a problem"

Ordinary Course Learning Outcome 6 (ORDCLO6)

Demonstrate the qualities and transferable skills necessary for employment requiring: A) the exercise of initiative and personal responsibility. B) decision-making in complex and unpredictable contexts. C) the learning ability needed to undertake appropriate further training of a professional or equivalent nature.

Honours Course Learning Outcome 1 (DEGCLO1)

"Demonstrate a systematic understanding of key aspects of pharmacology, including acquisition of coherent and detailed knowledge, at least some of which is at, or informed by, the forefront of defined aspects of a discipline with an appreciation of the uncertainty, ambiguity and limits of knowledge"

Honours Course Learning Outcome 2 (DEGCLO2)

"Demonstrate an ability to deploy accurately established techniques of analysis and enquiry within pharmacology and apply the methods and techniques that they have learned to review, consolidate, extend and apply your knowledge and understanding, and to initiate and carry out projects."

Honours Course Learning Outcome 3 (DEGCLO3)

"Demonstrate conceptual understanding that enables the student: A) to devise and sustain arguments, and/or to solve problems, using ideas and techniques, some of which are at the forefront of a discipline. B) to describe and comment upon particular aspects of current research, or equivalent advanced scholarship, in the discipline."

Honours Course Learning Outcome 4 (DEGCLO4)

"Demonstrate the ability to manage your own learning, and to make use of scholarly reviews and primary sources (for example, refereed research articles and/or original materials appropriate to the discipline) and communicate information, ideas, problems and solutions to both specialist and non-specialist audiences."

Honours Course Learning Outcome 5 (DEGCLO5)

"Critically evaluate arguments, assumptions, abstract concepts and data (that may be incomplete), to make judgements, and to frame appropriate questions to achieve a solution - or identify a range of solutions - to a problem"

Honours Course Learning Outcome 6 (DEGCLO6)

Demonstrate the qualities and transferable skills necessary for employment requiring: A) the exercise of initiative and personal responsibility. B) decision-making in complex and unpredictable contexts. C) the learning ability needed to undertake appropriate further training of a professional or equivalent nature.

Overview of Assessment:

Module	Title	Course Learning Outcomes
4BM004	Human Structure and Function	CHECLO1, CHECLO2, CHECLO3, CHECLO4
4PY008	Introduction to Microbiology	CHECLO1, CHECLO4, CHECLO5
4PY009	Principles of Drug Action	CHECLO1, CHECLO2, CHECLO3, CHECLO4
4PY012	Scientific Communication and Undergraduate Development	CHECLO2, CHECLO3, CHECLO4, CHECLO5
4PY013	Molecular Basis of Life	CHECLO1, CHECLO2, CHECLO3, CHECLO4
4PY014	Pharmacology and Toxicology	CHECLO1, CHECLO2, CHECLO3, CHECLO4
5BC001	Molecular Biosciences	DHECLO1, DHECLO3, DHECLO4, DHECLO5
5PY010	Therapeutic Pharmacology	DHECLO1, DHECLO3, DHECLO5
5PY016	Experimental Pharmacology	DHECLO1, DHECLO2, DHECLO3, DHECLO4, DHECLO6
5PY017	Pharmaceutical Microbiology	DHECLO1, DHECLO3, DHECLO5
5PY018	Drug Design and Development	DHECLO1, DHECLO2, DHECLO3, DHECLO4, DHECLO6
5PY024	Further Therapeutic Pharmacology	DHECLO1, DHECLO3, DHECLO5
6BC002	Gene Manipulation and Bioinformatics	DEGCLO1, DEGCLO2, DEGCLO3, DEGCLO5, ORDCLO1, ORDCLO2, ORDCLO3, ORDCLO5
6PY002	Pharmaceutical Biotechnology and Molecular Biology	DEGCLO1, DEGCLO3, DEGCLO4, DEGCLO5, ORDCLO1, ORDCLO3, ORDCLO4, ORDCLO5
6PY004	Honours Project (Pharmaceutical Sciences and Pharmacology)	DEGCLO1, DEGCLO2, DEGCLO3, DEGCLO4, DEGCLO6, ORDCLO1, ORDCLO2, ORDCLO3, ORDCLO4, ORDCLO6
6PY006	Biochemical Pharmacology	DEGCLO1, DEGCLO3, DEGCLO4, DEGCLO5, ORDCLO1, ORDCLO3, ORDCLO4, ORDCLO5
6PY007	Current Advances in Pharmacology	DEGCLO1, DEGCLO2, DEGCLO3, DEGCLO4, DEGCLO6, ORDCLO1, ORDCLO2, ORDCLO3, ORDCLO4, ORDCLO6

Teaching, Learning and Assessment:

You will undertake a wide range of learning activities including:-

- Computer based learning
- Supported learning using the University VLE (CANVAS) for information, synchronous and asynchronous communications
- Lectures
- Tutorials (small group)
- Tutorials (one-to-one)
- Workshops
- Case studies
- Structured laboratory exercises
- Individual structured assignment-based learning
- Directed study
- Individual or group investigative practical exercises
- Individual and group research project investigations
- Group work to develop and assess a wide range of manipulative, logic and other transferable skills.

Assessment methods will include:-

- Written reports
- Essays
- Literature reviews
- Exams
- Group presentations
- Poster presentations

All summative assessments will be supported by equivalent formative assessments which will enable you to gain the skills necessary to achieve the learning outcomes of the course. A particular focus will be placed on practical and analytical skills and support to develop these will be provided through extensive hands on training at each level of the course. Analytical skills will be developed sequentially throughout each year of the course and you will gain extensive experience in data generation, interpretation and manipulation. Workshops and small group tutorials will provide extensive support in developing these skills.

The overall aim of the course is to develop independent learners who are able to reflect on their learning in a professional manner and apply acquired knowledge in an integrated fashion.

Learning and Teaching Methods:

This data indicates the proportion of time in each year of study that students can expect to engage in the following activities (expressed as a percentage for each level).

Level	Teaching	Independent	Placement
4	22	78	0
5	20	80	0
6	22	78	0

Assessment Methods:

This data indicates the proportion of summative assessment in each year of study that will derive from the following: (expressed as a percentage for each level).

Level	Written Exams	Practical Exams	Coursework
4	63	7	30
5	78	0	22
6	25	11	64

Student Support:

Students will be assigned individual tutors who will be available to discuss academic progress. Students will also be made aware of the learning support available via the learning centre. Academic study skills are embedded into the course.

Employability in the Curriculum:

The pharmaceutical and biotechnology sectors are currently growth areas in the UK and successful study in pharmacology will open up a range of careers in biochemical, medical, pharmaceutical, chemical and related areas. Specifically, graduates are likely to find employment in research and development in the pharmaceutical and medical sectors. Other career outlets are possible and include work in hospital laboratories, forensic science, drug analysis, pharmaceutical marketing and sales and medical writing.

Graduates will demonstrate the generic, subject-specific and transferable knowledge and skills that form a sound basis for further postgraduate study and/or research and their continuing development.



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