BSc (Hon) PHARMACEUTICAL SCIENCE COURSE SPECIFICATION

Course Aim and Title	BSc (Hons) Pharmaceutical Science
Intermediate Awards Available	Dip HE, Bioscience Cert HE, Bioscience
Teaching Institution(s)	UEL on campus
Alternative Teaching Institutions (for local arrangements see final section of this specification)	
UEL Academic School	Health, Sport and Bioscience
UCAS Code	B200
Professional Body Accreditation	Academy Pharmaceutical Sciences (applied for)
Relevant QAA Benchmark Statements	Biosciences
Additional Versions of this Course	BSc (Hons) Pharmaceutical Science with Placement Year BSc (Hons) Pharmaceutical Science with Foundation Year
Date Specification Last Updated	April 2019

Course Aims and Learning Outcomes

The Aim of this Course is to:

Learn about the design, development and analysis of new medicines for clinical purposes. Training covers all aspects of the research, development and manufacture of medicines including regulation that will provide you with the skills to support a career as a pharmaceutical scientist.

This course is designed to give you the opportunity to:

- Acquire a breadth of knowledge and understanding of how new drugs and therapies are developed for clinical purposes.
- Develop a range of practical skills including interpretation of a variety of appropriate experimental techniques showing competency and ability to assess risks and work safely in the laboratory.
- Show an understanding of key pharmaceutical concepts enabling students to appreciate the development of more specific advanced topics in selected areas.
- Gain lifelong knowledge and skills that may contribute to future employment opportunities or lead to further study in terms of professional qualifications or academic achievement.

What you will learn:

Knowledge

- All students gain a solid knowledge-base in key areas of pharmaceutical science at level one.
  Thereafter they will acquire more detailed specialist knowledge.
- Students will develop an understanding of the laboratory techniques and procedures used in the development and analysis of medicines which will allow the rapid acquisition of more specialist skills later in their career.
- The course aims to provide the ability to apply standard methodology to the solution of problems in pharmaceutical science.
- An appreciation of the impact of scientific research on society and the importance of developing appropriate scientific research into pharmaceutical science.

Thinking skills

- The ability to critically analyse published information, construct synopses and devise solutions.
- The ability to formulate hypotheses with the minimum of assistance
- The ability to deal with topics expansively using reason and argument.

Subject-Based Practical skills

- The ability to analyse data from own and other people's experiments
- and to interpret them in the light of published work
- The ability to select and apply a range of practical skills relevant to
- the research, development and manufacture of medicines.
- The ability to effectively communicate your work to scientists and the
- general public
- The ability to select and utilize appropriate computer software
- The ability to carry out literature searches effectively to find information on a specific topic

Skills for life and work (general skills)

- The development of your own style of independent learning
- The ability to communicate ideas and experiments to others and to
- debate relevant scientific and/or ethical skills
- IT skills
- Communication skills, written and oral
- Team work
- The development of a sense of proper scientific conduct and ethical responsibility
- Time management
- Confidence

Learning and Teaching

Knowledge is developed through

- Lectures and tutorials
- Workshops and practicals
- Guided reading
- Internet and Moodle
- Knowledge-based activities including external visits.

Thinking skills are developed through

- Independent reading
- Computer aided learning
- Preparing for tutorials, seminars and workshops
- Presentations
- Completing coursework assignments (including data analysis, essays,
- presentations, etc.)
- Reflective activities with feedback
- Critical evaluation of the literature related to pharmaceutical science and allied scientific research

Practical skills are developed through

- Library practical and/or fieldwork
- Computer simulations and IT activities with feedback
- Research skills-based activities with feedback

Skills for life and work (general skills) are developed through

- Managing time
- Developing IT skills
- Presenting ideas and arguments in a structured manner – written and oral communication
- Problem solving
- Interacting with other people and team work
- Project work

Assessment

Knowledge is assessed by

- Evidence of reading and comprehension of the topics covered in the modules being assessed. This will be particularly apparent in essay work and examinations

- Ability to describe, explain and discuss various aspects of the course material in the context of class tutorials, group work, presentations and other pieces of assessed coursework for the modules.

Thinking skills are assessed by

- Coursework, examinations, project work
- In the final year particularly, thinking skills will be assessed by the ability to integrate the information presented separately in any module for the construction of arguments, comparisons and hypotheses as required to address the specific assessments in each module

Practical skills are assessed by

- The ability to carry out laboratory practical work effectively, within the timeframe allocated
- The ability to interpret and report on work carried out in the laboratory
- The ability to complete assignments using appropriate resources
- Evidence of logical planning and management of time in the preparation of materials for assessment

Skills for life and work (general skills) are assessed by

- The ability to work to strict deadlines
- The ability to demonstrate problem solving abilities
- Demonstration of effective oral and written communication skills
- Evidence of general numerical and mathematic skills
- Evidence of interpersonal skills such as teamwork and/or team
- leadership
- Demonstration of the professionalism required to be a pharmaceutical scientist

Students with disabilities and/or particular learning needs should discuss assessments with the Course Leader to ensure they are able to fully engage with all assessment within the course.

Work or Study Placements

The third year of the course might be spent in a Sandwich Placement. This is optional and placements are not guaranteed but selected by a competitive process and will be based in companies/Institutions relevant to Pharmaceutical scientists

Course Structure

All courses are credit-rated to help you to understand the amount and level of study that is needed.

One credit is equal to 10 hours of directed study time (this includes everything you do e.g. lecture, seminar and private study).

Credits are assigned to one of 5 levels:

3 Equivalent in standard to GCE 'A' level and is intended to prepare students for year one of an undergraduate degree course.
4 Equivalent in standard to the first year of a full-time undergraduate degree course.
5 Equivalent in standard to the second year of a full-time undergraduate degree course.
6 Equivalent in standard to the third year of a full-time undergraduate degree course.
7 Equivalent in standard to a Masters degree.

Courses are made up of modules that are each credit weighted.

The module structure of this course:

Level	Module Code	Module Title	Credit Weighting	Core/Option	Available by Distance Learning? Y/N
4	BS4100	Professional Practice in Science (Mental Wealth)	20	Core	N
4	BS4108	Fundamentals of Organic Chemistry	20	Core	N
4	BS4102	Cell Biology	20	Core	N
4	BS4106	Fundamentals in Human Anatomy and Physiology	20	Core	N
4	BS4105	Introduction to Biochemistry and Molecular Biology	20	Core	N
4	BS4103	Fundamentals of Analytical Chemistry	20	Core	N

4	BS4099	Level 4 Short Work Placement	0	Option	N
5	BS5100	Infection and Immunity	20	Core	N
5	BS5105	Fundamental and Experimental Pharmacology	20	Core	N
5	BS5106	Pharmaceutics and Drug Delivery	20	Core	N
5	BS5110	Research and Career Development (Mental Wealth)	20	Core	N
5	BS5114	Drug, Discovery, Development and Regulation	20	Core	N
5	BS5115	Organic Synthesis	20	Core	N
5	BS5013	Year Long Placement (Sandwich Year)	0	Option	N
5	BS5012	Level 5 Short Work Placement	0	Option	N
6	BS6108	Natural Products Discovery	20	Core	N
6	BS6109	Medicinal Chemistry	20	Core	N

6	BS6112	Application of Analytical Techniques in Pharmaceutical Quality Control	20	Core	N
6	BS6113	Research Project and Career Enhancement Portfolio (Mental Wealth)	20	Core	N
6	BS6118	Biopharmaceuticals	20	Core	N
6	BS6121	Toxicology	20	Core	N
6	BS6099	L6 Optional Short Work Placement	0	O	N
Please note: Optional modules might not run every year, the course team will decide on an annual basis which options will be running, based on student demand and academic factors, in order to create the best learning experience.					

The overall credit-rating of this course is 360 credits. If for some reason you are unable to achieve this credit you may be entitled to an intermediate award, the level of the award will depend on the amount of credit you have accumulated. You can read the University Student Policies and Regulations on the UEL website.

Course Specific Regulations

Typical Duration

It is possible to move from full-time to part-time study and vice-versa to accommodate any external factors such as financial constraints or domestic commitments. Many of our students make use of this flexibility and this may impact on the overall duration of their study period.

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The expected duration of this course is 3 years full-time or 4 years part-time.

A student cannot normally continue study on a course after 4 years of study in full time mode unless exceptional circumstances apply and extenuation has been granted. The limit for completion of a course in part time mode is 7 years from first enrolment.

Further Information

More information about this course is available from:

- The UEL web site (www.uel.ac.uk)
- The course handbook
- Module study guides
- UEL Manual of General Regulations (available on the UEL website)
- UEL Quality Manual (available on the UEL website)
- School web pages
- https://www.apsgb.co.uk/ Academy of Pharmaceutical Sciences

All UEL courses are subject to thorough course approval procedures before we allow them to commence. We also constantly monitor, review and enhance our courses by listening to student and employer views and the views of external examiners and advisors.

Additional costs:

None

Alternative Locations of Delivery

This course has applied for professional body accreditation by the Academy of Pharmaceutical Sciences