Course Aims and Learning Outcomes

This course is designed to give you the opportunity to:

- To gain an understanding of the basic mechanisms which are found in all living systems.
- To apply that basic understanding to the study of specific, more advanced, topics enabling students to have current knowledge in selected areas.
- To develop skills in the performance and interpretation of a range of appropriate experimental techniques.
- To develop research skills
- To develop independent learning skills, which can be carried on throughout life.
- To gain an insight into the work of pharmacologists in modern society.
- To provide students with excellent employment prospects for a wide range of careers in research, the pharmaceutical industry and drug regulatory affairs.

What you will learn:
Knowledge
- All students gain a broad overview of the biology field at level one. Thereafter you will acquire more detailed specialist knowledge in your chosen areas.
- The course aims to provide a background to a large number of the scientific techniques used in biological investigations.
- Students will acquire an understanding of the laboratory procedures and techniques used, which will allow the rapid acquisition of more specialist skills later in their career.
- An awareness of the wider implications of scientific research on society as a whole.

Thinking skills
- The ability to comprehend, analyze and criticize published information in biology.
- The ability to formulate hypotheses with the minimum of assistance.
- The ability to use integrated approaches to problem solving.

Subject-Based Practical skills
- The ability to analyse data from your 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 your chosen areas of biology.
- The ability to design and carry out experimental work.
- 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 issues.
- IT skills.
- Communication skills.
- Team work.
- Time management.
- Confidence.
- Networking.

Learning and Teaching
Knowledge is developed through
- Guided reading
- Knowledge-based activities with feedback
- Online discussions and activities
- Lectures
- Tutorials
- Workshops
- Practicals
- Reading
- Internet, Moodle and CAL

Thinking skills are developed through
- Reflective activities with feedback
- Online discussions and activities
- Computer aided learning
- Presentations
- Preparing for tutorials and seminars/workshops
- Completing coursework assignments (including data analysis essays, presentations etc)
- Independent reading

Practical skills are developed through
- Laboratory Practical and/or fieldwork
- Computer simulations and use of IT
- IT activities with feedback
- Research skills-based activities with feedback

Skills for life and work (general skills) are developed through
- Planning activities with feedback
- Project work
- Managing time
- Presenting ideas and arguments in a structured manner - written and oral communication
- Problem solving
- Team work

Assessment
Knowledge is assessed by
- Written examinations
- Practical reports
- Essays
- Data analysis
- Poster presentations
- Oral presentations
- Portfolios
- Final year research project and dissertation
- MCQ tests
- Database searches
- Library exercises
- Coursework

Thinking skills are assessed by
- Evidence of reading and comprehension of the topics covered in the module 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 module.
- In the final year particularly, thinking skills will be assessed by the ability to take information presented in any module out of its original context and to utilise this information in the construction of arguments, comparisons, hypotheses etc 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 select and utilize appropriate problem solving skills
- Demonstration of effective oral and written communication skills
- Evidence of interpersonal skills such as teamwork and/or team leadership
- Evidence of general numeracy skills

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 4-year sandwich course offers you the experience of one year’s work in a hospital, research organisation, small-medium biotechnological enterprise or large pharmaceutical company in the UK, EU or further afield. There is also the opportunity to register on a non-credits bearing short placement module.
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:

<table>
<thead>
<tr>
<th>Level</th>
<th>Module Code</th>
<th>Module Title</th>
<th>Credit Weighting</th>
<th>Core/Option</th>
<th>Available by Distance Learning?</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>BS4100</td>
<td>Professional Practice in Science (Mental Wealth)</td>
<td>20</td>
<td>Core</td>
<td>Y/N</td>
</tr>
<tr>
<td>4</td>
<td>BS4101</td>
<td>Essential Chemistry</td>
<td>20</td>
<td>Core</td>
<td>Y/N</td>
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<tr>
<td>4</td>
<td>BS4102</td>
<td>Cell Biology</td>
<td>20</td>
<td>Core</td>
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<tr>
<td>4</td>
<td>BS4105</td>
<td>Introduction to Biochemistry and Molecular Biology</td>
<td>20</td>
<td>Core</td>
<td>Y/N</td>
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<tr>
<td>4</td>
<td>BS4106</td>
<td>Fundamentals in Human Anatomy and Physiology</td>
<td>20</td>
<td>Core</td>
<td>Y/N</td>
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<tr>
<td>4</td>
<td>BS4107</td>
<td>Fundamentals in Microbiology</td>
<td>20</td>
<td>Core</td>
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<td>Level</td>
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<td>Title</td>
<td>Credits</td>
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<td>4</td>
<td>BS4099</td>
<td>Level 4 Short Work Placement</td>
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<td>Option</td>
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<td>5</td>
<td>BS5100</td>
<td>Infection and Immunity</td>
<td>20</td>
<td>Core</td>
<td>N</td>
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<tr>
<td>5</td>
<td>BS5104</td>
<td>Physiological Regulation</td>
<td>20</td>
<td>Core</td>
<td>N</td>
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<tr>
<td>5</td>
<td>BS5105</td>
<td>Fundamental &amp; Experimental Pharmacology</td>
<td>20</td>
<td>Core</td>
<td>N</td>
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<tr>
<td>5</td>
<td>BS5114</td>
<td>Drug, Discovery, Development and Regulation</td>
<td>20</td>
<td>Core</td>
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<tr>
<td>5</td>
<td>BS5112</td>
<td>Cellular Biochemistry</td>
<td>20</td>
<td>Core</td>
<td>N</td>
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<td>5</td>
<td>BS5110</td>
<td>Research and Career Development (Mental Wealth)</td>
<td>20</td>
<td>Core</td>
<td>N</td>
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<td>BS5013</td>
<td>Year Long Placement (Sandwich Year)</td>
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<td>Option</td>
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<td>BS5012</td>
<td>Level 5 Short Work Placement</td>
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<td>6</td>
<td>BS6106</td>
<td>Neuropsychopharmacology &amp; Emerging Therapeutics</td>
<td>20</td>
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<td>6</td>
<td>BS6120</td>
<td>Cardiovascular &amp; Pulmonary Pharmacology</td>
<td>20</td>
<td>Core</td>
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<td>6</td>
<td>BS6111</td>
<td>Immunopharmacology &amp; Chemotherapeutics</td>
<td>20</td>
<td>Core</td>
<td>N</td>
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</table>
6  BS6113  Research Project and Career Enhancement Portfolio (Mental Wealth)  20  Core  N
6  BS6121  Toxicology  20  Core  N
6  BS6110  New Frontiers in Pharmacology  20  Core  N
6  BS6099  Level 6 Short Work Placement  20  Option  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.

Additional detail about the course module structure:
A core module for a course is a module which a student must have passed (i.e. been awarded credit) in order to achieve the relevant named award. An optional module for a course is a module selected from a range of modules available on the course.

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
N/A

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.
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

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
None