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Pharmacology - BIO00046I

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- **Department:** Biology
- **Module co-ordinator:** Prof. Miles Whittington
- **Credit value:** 10 credits
- **Credit level:** I
- **Academic year of delivery:** 2020-21
 - See module specification for other years: [2018-19](#) [2019-20](#)

Module summary

The subject of Pharmacology focusses on the mechanisms by which chemical entities (drugs, hormones, transmitters, toxins) affect the human body. It is a vital discipline in Biomedical Sciences and of particular relevance to understanding how to treat many pathologies manifest in a patient population. This module will consider the two core components of Pharmacology: Pharmacokinetics - how drugs can be administered, their distribution within the body and ultimate metabolism and excretion. Pharmacodynamics - how drugs produce their effects at the level of molecular interactions within certain body systems.

Module will run

Occurrence

A

Teaching cycle

Spring Term 2020-21 to Summer Term 2020-21

Module aims

The subject of Pharmacology focusses on the mechanisms by which chemical entities (drugs, hormones, transmitters, toxins) affect the human body. It is a vital discipline in Biomedical Sciences and of particular relevance to understanding how to treat many pathologies manifest in a patient population. This module will consider the two core components of Pharmacology: Pharmacokinetics - how drugs can be administered, their distribution within the body and ultimate metabolism and excretion. Pharmacodynamics - how drugs produce their effects at the level of molecular interactions within certain body systems.

For examples, both theoretical and practical, the module will consider how drugs affect muscles, the control of which is vital for many organismal processes such as movement (skeletal muscle), heart function (cardiac muscle), food absorption and control of blood pressure (smooth muscle) in particular, and how drugs affect enzymes, the control of which is vital for all biochemical processes in general. In addition the course will consider genetic aspects of response to drugs, how unwanted toxic effects may occur and how new drugs are discovered and developed before entering the therapeutic arsenal of medical practitioners. The module is primarily lecture and practical-based but with adequate time allocated for private study, and synoptic input for additional learning and revision.

Module learning outcomes

1. Describe the role of pharmacology in the study of disease.
2. Demonstrate an understanding of the action of drugs and factors affecting the interactions of drugs with the human body.
3. Outline the process of drug discovery.
4. Demonstrate an understanding of some experimental approaches in pharmacological science.
5. Describe the contribution that pharmacology makes to other biomedical sciences.

6. Analyse and interpret data from basic pharmacological experiments

Module content

The module will expand upon and bring together aspects of basic neuroscience, cell cycle, intracellular signalling and basic animal biology taught in year 1.

Assessment

Task	Length	% of module mark
24 hour open exam Pharmacology	N/A	100

Special assessment rules

None

Additional assessment information

Formative assessment will be provided via VLE based multiple choice questions.

Reassessment

Task	Length	% of module mark
24 hour open exam Pharmacology	N/A	100

Module feedback

Cohort-level feedback will be provided on performance in closed exams and made available via the VLE. Histograms of module marks will be posted on the notice boards outside the Biology Student Services office. Individual marks will be made available to you and your supervisor via e:vision. Exam scripts will be made available at the end of either the Spring or Summer terms. You should take the opportunity to discuss your marks and feedback with your supervisor.

During the teaching of the module you will receive feedback that may be at a whole class or individual level. Forms of feedback may include: model answers and discussion of workshop questions, summaries of performance in practicals, VLE-based quizzes, individual spoken comments during workshops, individual written comments on formative work.

Indicative reading

These are available through the VLE module site.

The information on this page is indicative of the module that is currently on offer. The University is constantly exploring ways to enhance and improve its degree programmes and therefore reserves the right to make variations to the content and method of delivery of modules, and to discontinue modules, if such action is reasonably considered to be necessary by the University. Where appropriate, the University will notify and consult with affected students in advance about any changes that are required in line with the University's policy on the [Approval of Modifications to Existing Taught Programmes of Study](#).

Coronavirus (COVID-19): changes to courses

The 2020/21 academic year will start in September. We aim to deliver as much face-to-face teaching as we can, supported by high quality online alternatives where we must.

Find details of the measures we're planning to protect our community.

[Course changes for new students](#)