



# BSc (Hons) Medical Pharmacology (B210)

**Duration: Three years or four years with Professional Placement Year**

**Typical intake: 32**

**Typical number of applications: 200+**

Medical Pharmacology is the study of how drugs and medicines work at the cellular and molecular level to produce their therapeutic (and sometimes harmful) effects in humans. Safe use of a drug requires an appreciation of the practical context, its chemistry and how the physiological, biochemical and genetic make-up of an individual may affect the desired response.

This BSc (Hons) degree is a modular three (or optional four) year full-time programme offering a high quality and in-depth exploration of modern Medical Pharmacology, providing specialised scientific training in internationally-recognised research laboratories. It encourages and develops your natural curiosity, ability to communicate, organisational and problem solving skills and prepares you to work independently as well as in team situations. It delivers understanding of the biological effects and mechanisms of action of a wide range of bioactive substances.

Our foremost goal is to support the development of research trained scientists. However, appropriately-qualified students may be eligible to enter the Cardiff University four year Graduate Entry Medicine (GEM, A101) course, directly after completing their Medical Pharmacology degree.

**CARDIFF**  
UNIVERSITY

PRIFYSGOL  
**CAERDYDD**

**School of Pharmacy and  
Pharmaceutical Sciences**

**Yr Ysgol Fferylliaeth a'r  
Gwyddorau Fferyllol**



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our Medical Pharmacology  
subject page

## Year one

This is studied alongside students from the School of Biosciences. Our aim is to provide you with a sound understanding of chemical and biological sciences; in particular biochemistry, physiology and genetics to help facilitate understanding of how drugs work at molecular/tissue/organ levels. Experiencing virtual patient cases around therapeutics, toxicology and drugs of abuse bridges the gap between pharmacological theory and the individual.

## Year two

Modules provide the “drugology” across neurotransmission, endocrine and paracrine cell signalling, haematology, the central nervous system, cardiovascular, immunology and cancer. An exclusively practical module will equip you with a sound basis for quantitative and qualitative functional studies and give hands-on training in advanced laboratory techniques. Those students interested in GEM follow a unique clinical anatomy module that utilises cadaveric dissection to investigate the orientation and interpretation of arrangement and function of the human body. Places on this module are limited and priority will be given to best performing students from Year 1.

## Professional Placement Year (PPY)

The PPY will be spent (9-12 months) with a single organisation (pharmaceutical industry or related, government/university research laboratory or similar). It is designed to extend academic learning to the workplace and aims to provide invaluable employability skills. This option is a “closed course” and not available via UCAS.

## Final year

Students study in an intensive medical research-led environment. Modules develop several selected areas in depth, such as pharmacogenetics, neuropharmacology, drug development & therapeutics, immunology, cancer and cardiovascular biology. A particular module develops skills of critical analysis in reading scientific papers and fosters the ability to present data accurately and unambiguously. A key feature of the year is a substantial experimental, library or data analysis-based biomedical research project that promotes development of higher critical applied and analytical skills. The final year students will also integrate with a number of medical students who are undertaking a one year Intercalated BSc degree in Pharmacology, providing a valuable platform for interdisciplinary peer-interaction.

“Pharmacology has shown me the range of medical fields that you can go into - oncology is not something I would have thought I would love so much but there are so many different options and it enables you to fully think through available opportunities for research/medical practice.”

Grace Barlow, Medical Pharmacology student

## Entry requirements

### A-level:

AAB-ABB to include Chemistry and at least one other Science (from Biology, Physics, Maths or Statistics). Only one mathematical subject will be accepted. General Studies and Critical Thinking will not be accepted. Applicants undertaking Science A-levels where a separate practical endorsement is reported will require a pass in this element.

### Welsh Baccalaureate Advanced Skills Challenge Certificate (WBASCC):

AAB in two A-level subjects (must include Chemistry and another Science subject, as above) and the WBASCC. WBASCC will be accepted instead of a 3rd A-level. General Studies and Critical Thinking will not be accepted.

### International Baccalaureate:

35 points to include 665 from 3 HL subjects including 6 in Chemistry and a second science subject (from Biology, Physics, Maths or Statistics). (Excluding Theory of Knowledge and Extended Essay)

### BTEC:

Grades DD-DM in a BTEC Diploma in Applied Science plus Grades A-B in A-level Chemistry.

### GCSE:

GCSE Maths grade B/6. GCSE English Language Grade B/6 or IGCSE English First Language grade B/6. (IGCSE English as a Second Language is not accepted.)

**Alternative equivalent/overseas qualifications are welcome.**



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