

Module Title Principles Of Pharmacology Keywords Drug metabolism, pharmacokinetics, drug action.	Reference AS2910 SCQF Level SCQF 8 SCQF Points 15 ECTS Points 7.5 Created March 2011 Approved August 2014 Amended Version No. 1
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This Version is No Longer Current

The latest version of this module is available [here](#)

Prerequisites for Module

Successful completion of Stage One BSc (Hons) Biomedical Science Programme (or equivalent).

Principals of pharmacokinetics. Routes of drug administration, bioavailability, ADME (absorption, distribution, metabolism (cytochrome P450) and excretion).

Corequisite Modules

None.

Precluded Modules

None.

Aims of Module

To understand and apply principles of pharmacology in the context of disease processes and drug action.

Learning Outcomes for Module

Indicative Student Workload

<i>Contact Hours</i>	Full Time
Assessment	2
Computer based exercises	6
Laboratory based practicals	12
Lectures	18
Tutorials	4
<i>Directed Study</i>	40
<i>Private Study</i>	68

On completion of this module, students are expected to be able to:

- 1.Explain the basic principles of drug action.
- 2.Explain the absorption, distribution, metabolism and elimination of drugs.
- 3.Discuss the mode of action of selected groups of drugs.
- 4.Manipulate and interpret experimental data and to select and apply appropriate statistical techniques.

Indicative Module Content

Cell signalling and regulation, G-protein coupled receptors, nuclear hormone receptors, tyrosine kinase receptors, ligand-gated ion channels. Autonomic neurotransmitters; synthesis, metabolism, uptake and transporter systems. Cholinergic and adrenergic agonists and antagonists.

Mode of Delivery

Lectures with associated tutorials, computer-based exercises and laboratory practicals.

Assessment Plan

	Learning Outcomes Assessed
Component 1	1,2
Component 2	3,4

Component 2 is assessed by a formal laboratory report.

Component 1 is assessed by a class test.

Indicative Bibliography

- 1.HARVEY, R.A.et al. *Lippincott's Illustrated Reviews: Pharmacology*. Current Edition. Wolters Kluwer
- 2.GOLAN, D.E. et al. *Fundamental Principles of Pharmacology: The Pathophysiologic Basis of Drug Therapy*. Current Edition. Wolters Kluwer.
- 3.GOLAN, D.E. et al. *Principles of Pharmacology*. Current Edition. Baltimore: Lippincott, Williams and Wilkins.