

## MODULE DESCRIPTOR

### Module Title

Principles Of Pharmacology

Reference	AS2910	Version	4
Created	August 2021	SCQF Level	SCQF 8
Approved	August 2014	SCQF Points	15
Amended	August 2021	ECTS Points	7.5

### Aims of Module

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

### Learning Outcomes for Module

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

### Module Delivery

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

### Indicative Student Workload

	Full Time	Part Time
Contact Hours	40	N/A
Non-Contact Hours	110	N/A
Placement/Work-Based Learning Experience [Notional] Hours	N/A	N/A
TOTAL	150	N/A
<i>Actual Placement hours for professional, statutory or regulatory body</i>		

**ASSESSMENT PLAN**

If a major/minor model is used and box is ticked, % weightings below are indicative only.

**Component 1**

Type: Coursework Weighting: 50% Outcomes Assessed: 1, 2  
 Description: MCQ assessment.

**Component 2**

Type: Coursework Weighting: 50% Outcomes Assessed: 3, 4  
 Description: A laboratory report.

**MODULE PERFORMANCE DESCRIPTOR****Explanatory Text**

The first grade represents Component 1 (CW1) equally weighted with the second, Component 2 (CW2). A minimum of Module Grade D is required to pass the module, with compensation of grade E in Component 1 or Component 2 permitted. Non-submission of either component will result in an NS grade.

Module Grade	Minimum Requirements to achieve Module Grade:
<b>A</b>	AA, AB, BA
<b>B</b>	AC, AD, BB, BC, CA, CB, DA
<b>C</b>	AE, BD, BE, CC, CD, DB, DC, EA, EB
<b>D</b>	CE, DD, DE, EC, ED
<b>E</b>	AF, BF, CF, DF, EE, EF, FA, FB, FC, FD, FE
<b>F</b>	FF
<b>NS</b>	Non-submission of work by published deadline or non-attendance for examination

**Module Requirements**

Prerequisites for Module	Successful completion of Stage 1 of the course or equivalent.
Corequisites for module	None.
Precluded Modules	None.

**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.