

MODULE DESCRIPTOR

Module Title

Applied Pharmacology

Reference	AS3904	Version	4
Created	August 2021	SCQF Level	SCQF 9
Approved	August 2014	SCQF Points	15
Amended	August 2021	ECTS Points	7.5

Aims of Module

To develop an understanding of pharmacological principles which underpin clinical biochemical and toxicological screening.

Learning Outcomes for Module

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

- 1 Recognise and discuss the pharmacological targets that may modulate biomarkers used in biochemical and toxicological screening.
- 2 Utilise knowledge and understanding acquired from Learning Outcome 1 to underpin the integration of pharmacological principles in the context of drug absorption, drug distribution, drug metabolism and excretion.
- 3 Manipulate, present, interpret and discuss experimental data based on knowledge from Learning Outcomes 1 & 2.

Indicative Module Content

Pharmacodynamics and pharmacokinetics of drugs of abuse using selected examples (including recreational drug use and performance enhancing drugs). Drug-receptor interactions outlining the roles of biotransformation and genetic polymorphisms in ADME. Biomarkers and drug metabolism, in clinical/toxicological screening.

Module Delivery

Lectures, coursework sessions (which include problem solving exercises, data collection and analysis), tutorial sessions and directed study (including use of pharmacological computer packages, directed reading and self-assessment exercises).

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
Actual Placement hours for professional, statutory or regulatory body		

ASSESSMENT PLAN

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

Component 1

Type:	Coursework	Weighting:	60%	Outcomes Assessed:	1, 2, 3
Description:	Requires the completion of an appropriate case study.				

Component 2

Type:	Examination	Weighting:	40%	Outcomes Assessed:	1, 2
Description:	Unseen, closed book examination.				

MODULE PERFORMANCE DESCRIPTOR**Explanatory Text**

The first grade represents Component 1 (CW1) weighted as major and the second, Component 2 (EX1), weighted as minor. A minimum of Module Grade D is required to pass the module, with compensation of grade E in C1 or C2 permitted. Non-submission of either component will result in an NS grade.

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

Module Requirements

Prerequisites for Module	Successful completion of Stage 2 of the course, or equivalent.
Corequisites for module	None.
Precluded Modules	None.

INDICATIVE BIBLIOGRAPHY

- 1 BORON, W.F. and BOULPAEP, E.L. 2004. Medical Physiology. Oxford: Saunders-Elsevier Science.
- 2 GOLAN, D.E et al. 2012. Principles of Pharmacology (3rd Ed.). Baltimore: Lippincott, Williams and Wilkins.