

## MODULE DESCRIPTOR

### Module Title

Applied Pharmacology

Reference	PL3904	Version	1
Created	April 2023	SCQF Level	SCQF 9
Approved	June 2023	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
<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:	100%	Outcomes Assessed:	1, 2, 3
Description:	Case Studies				

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

Component 1 (CW1) comprises 100% of the module grade. A minimum of Module Grade D is required to pass the module. Non-submission of either component will result in an NS grade.

Module Grade	Minimum Requirements to achieve Module Grade:
<b>A</b>	A
<b>B</b>	B
<b>C</b>	C
<b>D</b>	D
<b>E</b>	E
<b>F</b>	F
<b>NS</b>	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. <i>Medical Physiology . 3rd Edition, 2016. Oxford: Saunders-Elsevier Science.</i>
2	GOLAN, D.E et al. <i>Principles of Pharmacology . 4th Edition, 2017. Baltimore: Lippincott, Williams and Wilkins.</i>
3	RITTER, J.M., et al. <i>Rang and Dale's Pharmacology . 9th Edition, 2018: Elsevier.</i>