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MODULE DESCRIPTOR

Module Title

Fundamentals of Organic Chemistry

Reference	AS2232	Version	4
Created	April 2022	SCQF Level	SCQF 8
Approved	May 2011	SCQF Points	15
Amended	May 2022	ECTS Points	7.5

Aims of Module

To develop students understanding of the various classes of drugs, their origin or synthetic pathway, and introduce their pharmacology in a forensic context.

Learning Outcomes for Module

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

- 1 Discuss the chemical composition, origin and synthesis of certain pharmaceutical and illicit drugs, including their uses and effects.
- 2 Discuss in general terms the absorption, distribution, metabolism and elimination of drugs.
- 3 Demonstrate a basic knowledge of Nuclear Magnetic Resonance with respect to characterising simple drug molecules.
- 4 Demonstrate a knowledge of procedures used, problem solving, interpretation of experimental results and reporting of data in practical organic chemistry.

Indicative Module Content

Review of functional groups and functional group interconversions involved in the synthesis of pharmaceutical drugs and drugs of abuse. Detail certain synthetic routes utilised in the their production. Introduction to absorption, distribution, metabolism and excretion of drugs, their uses, biological action, effects and toxicology in a forensic context. Introduction to proton and carbon Nuclear Magnetic Resonance and its application to identifying drugs.

Module Delivery

This is a lecture/tutorial based module supplemented with laboratory exercises and guided reading.

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:	70%	Outcomes Assessed:	1, 2, 3
Description:	Closed book written examination				

MODULE PERFORMANCE DESCRIPTOR

Explanatory Text

The first grade represents Component 1 (EX1) weighted as major and the second, Component 2 (CW1), weighted as minor. A minimum module grade of D is required for a pass, 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:
A	AA, AB
B	AC, AD, AE, BA, BB, BC, CA
C	BD, BE, CB, CC, CD, DA, DB
D	CE, DC, DD, DE, EA, 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 1 Forensic and Analytical Science or equivalent.
Corequisites for module	None.
Precluded Modules	None.

INDICATIVE BIBLIOGRAPHY

- 1 McMURRY, J. *Organic Chemistry*. Current Edition. Brooks/Cole
- 2 BROWN, W.H., FOOTE, C.S., IVERSON, B.L. and ANSLYN, E.V. *Organic Chemistry*. Current Edition. Brooks/Cole.
- 3 LOUDON, G. M. *Organic Chemistry*. Current Edition. Oxford University Press.
- 4 PATRICK, G. *Introduction to Medicinal Chemistry*. Current Edition. Oxford University Press.