

MODULE DESCRIPTOR

Module Title

Drug Discovery and Design

Reference	PLM344	Version	1
Created	June 2023	SCQF Level	SCQF 11
Approved	July 2022	SCQF Points	15
Amended	August 2021	ECTS Points	7.5

Aims of Module

To enable students to critically understand and evaluate aspects of drug design and the drug discovery process.

Learning Outcomes for Module

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

- 1 Critically evaluate and understand modern and historic approaches to drug discovery.
- 2 Critically discuss the chemical and physical properties of organic functional groups with respect to drug design and critically review the 'drug journey'.
- 3 Critically evaluate and analyse organo-synthetic and spectroscopic characterisation data.

Indicative Module Content

A history of drug discovery; medicinal chemistry; an overview of the drug discovery process; natural products as pharmaceutical lead compounds; SAR studies; bench to clinic case studies.

Module Delivery

The module will be delivered by lectures and tutorials, including visiting speakers. There will also be practical laboratory sessions.

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
 Description: A critical review of the drug discovery and design process.

Component 2

Type: Practical Exam Weighting: 0% Outcomes Assessed: 3
 Description: Successful completion of a laboratory book, detailing and recording data from laboratory sessions.
 This is a competency based assessment graded pass (P) or fail/unsuccessful (U).

MODULE PERFORMANCE DESCRIPTOR**Explanatory Text**

The first grade represents Component 1 (CW1) weighted as a major and the second, Component 2 (CW2) weighted as a minor. CW2 is pass (P)/unsuccessful(U). A minimum module grade of D or better for CW1 and a 'P' for CW2 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:
A	A grade A in component 1 (CW1) and a Pass in component 2 (CW2).
B	A grade B in component 1 (CW1) and a Pass in component 2 (CW2).
C	A grade C in component 1 (CW1) and a Pass in component 2 (CW2).
D	A grade D in component 1 (CW1) and a Pass in component 2 (CW2).
E	A grade E in component 1 (CW1) and a Pass in component 2 (CW2).
F	A grade F in component 1 (CW1) and a Pass in component 2 (CW2) or an Unsuccessful (U) attempt at Component 2.
NS	Non-submission of work by published deadline or non-attendance for examination

Module Requirements

Prerequisites for Module	None, in addition to course entry requirements.
Corequisites for module	None.
Precluded Modules	None.

INDICATIVE BIBLIOGRAPHY

- 1 Patrick, G.L., (2017). 'An introduction to medicinal chemistry', 6th edition, Oxford University Press.
- 2 Afonso, C., Candeias, N., Simao, D., Trindade, A., Coelho, J., Tan, B. and Franzen, R. (2017). 'Comprehensive organic chemistry experiments for the laboratory classroom', Cambridge: Royal Society of Chemistry.