From Atoms to Molecules

Module Information

2022.01, Approved

Summary Information

Module Code	4002APCHEM
Formal Module Title	From Atoms to Molecules
Owning School	Pharmacy & Biomolecular Sciences
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 4
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
Pharmacy & Biomolecular Sciences

Learning Methods

Learning Method Type	Hours
Lecture	55
Tutorial	6

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
SEP-CTY	CTY	September	12 Weeks

Aims and Outcomes

Aims	This is an introductory module for Organic and Analytical Chemistry, covering basic sources, reactions and analytical approaches to identification and properties of molecules.

After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Discuss the use and simple identification of functional groups.
MLO2	2	Use simple organic mechanisms to explain reaction.
MLO3	3	Use simple analytical data in compound identification.

Module Content

Outline Syllabus	Organic nomenclature, petrochemicals, bonding in Organic Chemistry, shapes of molecules. Functional groups 1 / acidity/basicity; simple reactions - SN1, SN2. E1, E2. Polarity / ionisation, chromatography, IR/UV/Fluorescence spectroscopy. Extraction, pH, CHN analysis, spot testing and basic NMR.
Module Overview	In this module you will be introduced to Organic and Analytical Chemistry and the way in which we can analyse organic chemicals and materials. You will cover basic sources, reactions, and analytical approaches to identification and properties of molecules. As an introductory level module, your work will be closely tied to laboratory practice and will link to the second semester modules in order to build experience and understanding.
Additional Information	This module gives an introduction to Organic Chemistry and the ways in which we can analyse organic chemicals and materials. As an introductory level module, the work will be closely tied to laboratory practice and will also link to the second semester organic-containing module in order to build experience and understanding.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Centralised Exam	Examination	60	2	MLO1, MLO2, MLO3
Future Focus e-learning task	Report	40	0	MLO1, MLO2, MLO3

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Alistair Fielding	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings