

Summary Information

Module Code	3418FNDSCI
Formal Module Title	Introduction to Chemistry
Owning School	Pharmacy & Biomolecular Sciences
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 3
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
Pharmacy & Biomolecular Sciences

Learning Methods

Learning Method Type	Hours
Lecture	33
Online	10
Practical	8
Workshop	6

Module Offering(s)

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

Aims and Outcomes

Aims	To provide student with a grounding in laboratory skills, fundamental physical and inorganic chemistry concepts, and an introduction to organic chemistry.
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Use laboratory data to draw appropriate conclusions.
MLO2	2	Perform calculations using parameters that measure properties of matter.
MLO3	3	Describe sub-atomic structure and apply atomic theory to interpret properties of matter.
MLO4	4	Relate reaction rates and physicochemical changes to fundamental scientific laws.

Module Content

Outline Syllabus	Accuracy, precision and equipment errors in scientific measurement. Atomic theory, including electron sublevels and radioactivity. Molecular bonding and intermolecular bonding. The periodic table and an overview of trends. Moles, mass, molarity and the gas laws. Relative atomic mass and its determination using a simple mass spectrometer. Structure and properties of gases, liquids and solids. Origins of acid and base behaviour and chemical equilibria. Spontaneous reactions, free energy, enthalpy and entropy. Rate of reactions, rate laws, reaction order and half-life. Collision theory and factors affecting rate. Nomenclature and structure of common organic functional groups.
Module Overview	
Additional Information	Covers introductory laboratory skills and fundamental physical and inorganic chemistry concepts alongside a brief introduction to organic chemistry.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Report	Practical	50	0	MLO1, MLO2
Centralised Exam	MCQ Exam	50	1.5	MLO4, MLO2, MLO3

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Philip Denton	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings