

### Summary Information

<b>Module Code</b>	3458FNDSCI
<b>Formal Module Title</b>	Introduction to Chemistry
<b>Owning School</b>	Pharmacy & Biomolecular Sciences
<b>Career</b>	Undergraduate
<b>Credits</b>	20
<b>Academic level</b>	FHEQ Level 3
<b>Grading Schema</b>	Pass/Not Pass

### Module Contacts

#### Module Leader

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

#### Module Team Member

Contact Name	Applies to all offerings	Offerings
Barry Nicholls	Yes	N/A

#### Partner Module Team

Contact Name	Applies to all offerings	Offerings
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### 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)

Offering Code	Location	Start Month	Duration
SEP-CTY	CTY	September	12 Weeks

### Aims and Outcomes

<b>Aims</b>	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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### Learning Outcomes

After completing the module the student should be able to:

Code	Description
MLO1	Use laboratory data to draw appropriate conclusions.
MLO2	Perform calculations using parameters that measure properties of matter.
MLO3	Describe sub-atomic structure and apply atomic theory to interpret properties of matter.
MLO4	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

Module covers introductory laboratory skills and fundamental physical and inorganic chemistry concepts alongside a brief introduction to organic chemistry. This is a core module for all Level 3 students on Pharmacy with a foundation year. This module is Pass/Fail with a minimum 55% requirement in each assessed item.

### Assessments

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