Chemistry 1

Module Information

2022.01, Approved

Summary Information

Module Code	3516IFESG
Formal Module Title	Chemistry 1
Owning School	Engineering
Career	Undergraduate
Credits	10
Academic level	FHEQ Level 3
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
LJMU Partner Taught

Partner Teaching Institution

Institution Name
Study Group

Learning Methods

Learning Method Type	Hours
Lecture	21
Seminar	12
Workshop	6

Module Offering(s)

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

Aims and Outcomes

Aims	To provide students with an understanding of the core concepts of chemistry. This will include physical, inorganic and organic chemistry, with an overview of contemporary science.

After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Explain atomic structure and interactions between molecules.
MLO2	2	Solve quantitative problems (stoichiometric) involving chemical formulas and equations.
MLO3	3	Present chemical data in a clear manner.

Module Content

Outline Syllabus	Atomic structure and bonding – elements, atoms, electrons, bonding (covalent, coordinate, polar, ionic), shapes of molecules, periodicity.Numbers – moles and molarity, molecular mass, units, dilutions, percent composition.Introduction to organic chemistry – carbon, nomenclature, stereochemistry, basic functional group chemistry and Isomerism - optical, geometric.Kinetics – rate equations, reaction mechanisms, rate limiting step, activation energy, equilibrium, free energy.
Module Overview	
Additional Information	This module introduces the core concepts of inorganic, organic and physical chemistry.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Exam	Examination	100	1.5	MLO1, MLO2, MLO3

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Jack Mullett	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings