

Practical Laboratories 5

Module Information

2022.01, Approved

Summary Information

Module Code	6003APCHEM
Formal Module Title	Practical Laboratories 5
Owning School	Pharmacy & Biomolecular Sciences
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 6
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
Pharmacy & Biomolecular Sciences

Learning Methods

Learning Method Type	Hours
Practical	40

Module Offering(s)

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

Aims and Outcomes

Aims	This course builds on skills attained in Levels 4 and 5 and deals with the synthesis and analysis of monomeric and polymeric organic and inorganic materials, including relevant examples from the modern chemical and allied industries. Advanced chromatographic techniques, including tandem approaches, spectroscopy and spectrometry will be employed for analysis of the materials produced in the laboratory. Assessment will be via a lab report and an oral presentation.
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Synthesise polymeric materials using modern chemical techniques.
MLO2	2	Evaluate and explain simple secondary physical behaviour in synthesised materials.
MLO3	3	Analyse polymeric and inorganic materials using modern chemical and instrumental techniques.
MLO4	4	Present information orally, using electronic media.

Module Content

Outline Syllabus	Modern approaches to materials chemistry; advanced polymers; coatings and layers; fabrication of thin films by self-assembly; supramolecular materials; exploration of peptide self-assembly; biomimetic materials; nanotechnology; advanced atomic spectroscopy; tandem techniques; advanced structural elucidation; organo-transition metal chemistry; polymer rheology; advanced crystallisation.
Module Overview	This module builds on your skills attained in Levels 4 and 5 and deals with the synthesis and analysis of monomeric and polymeric organic and inorganic materials, including relevant examples from the modern chemical and allied industries. You will employ advanced chromatographic techniques, including tandem approaches, spectroscopy and spectrometry, for analysis of the materials produced in the laboratory. You will present your findings via a lab report and oral presentation.
Additional Information	The course provides an integrated chemistry approach to materials synthesis and analysis.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Report	Lab report	50	0	MLO1, MLO2, MLO3, MLO4
Portfolio	Exam	50	0	MLO1, MLO2, MLO3, MLO4

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Steven Enoch	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings
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