

Industrial Analysis

Module Information

2022.01, Approved

Summary Information

Module Code	6002APCHEM
Formal Module Title	Industrial Analysis
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
Lecture	19
Workshop	18

Module Offering(s)

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

Aims and Outcomes

Aims	To understand how a range of sample types can be analysed using advanced instrumental techniques. Knowledge will be gained on the whole concept of analysis from sample preparation techniques through to data interpretation, quality control and quality assurance issues.
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Interpret and appraise data obtained from a broad range of advanced instrumental techniques.
MLO2	2	Discriminate between and employ correctly a broad range of advanced instrumental and sample preparation techniques.
MLO3	3	Evaluate critically the quality of analytical data and determine if it is fit for purpose.

Module Content

Outline Syllabus	Liquid Chromatography-Mass Spectrometry (LC-MS)Gas Chromatography-Mass Spectrometry (GC-MS)Inductively coupled plasma optical emission spectrometry(ICP-MS)Advanced sample prep.Advanced NMRIon mobility techniquesAdvanced chromatographyGel Permeation ChromatographyQuality control/assurance
Module Overview	In this module you will develop your understanding of how a range of sample types can be analysed using advanced instrumental techniques. Your study will focus on the whole concept of analysis from sample preparation techniques through to data interpretation, quality control and quality assurance issues. Data interpretation workshops will help you link the techniques and theories covered in lectures on the chemical and allied industries.
Additional Information	Lectures will cover the theory and relevant examples, from the chemical and allied industries, of each analytical technique. Data interpretation workshops will be linked to these techniques. The coursework and exam will assess ability to interpret data and a theoretical understanding of the techniques.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Report	Report	30	0	MLO1, MLO2, MLO3
Centralised Exam	Examination	70	2	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
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