

Liverpool John Moores University

Title: ANALYTICAL FORENSIC SCIENCE
Status: Definitive
Code: **5103FSBMOL** (122132)
Version Start Date: 01-08-2021

Owning School/Faculty: Pharmacy & Biomolecular Sciences
Teaching School/Faculty: Pharmacy & Biomolecular Sciences

Team	Leader
Amanda Boddis	Y
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Academic Level: FHEQ5
Credit Value: 20
Total Delivered Hours: 67
Total Learning Hours: 200
Private Study: 133

Delivery Options

Course typically offered: Semester 2

Component	Contact Hours
Lecture	30
Practical	15
Tutorial	5
Workshop	15

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	AS1	exam	50	2
Report	AS2	scientific report	50	

Aims

The aims of this module are to build on the theory, and provide further practical experience of the forensic analytical techniques taught in the forensic chemistry module at level 4. In addition to this, the module aims to provide students with more experience of interpreting different types of chromatograms and spectra and further

analytical chemistry knowledge to provide background information for the chemistry based modules offered at level 6.

Learning Outcomes

After completing the module the student should be able to:

- 1 Apply theoretical and practical knowledge of analytical forensic techniques to the analysis of a range of materials with reference to forensic science
- 2 Interpret and analyse analytical data sets
- 3 Develop scientific report writing and subject specific professional skills

Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

Exam	1	2	
Report	1	2	3

Outline Syllabus

Calibration Methods and Quality Control

Sampling and Sample Preparation

Quantitative and Qualitative Analysis using Chromatographic Techniques (GC and HPLC)

Mass Spectrometry

IR, Raman and Atomic Spectroscopy Techniques

Nuclear Magnetic Resonance Spectroscopy

Scientific Report Writing

Interpretation of Spectra

Learning Activities

Interactive lectures, practical sessions workshops and tutorials

Notes

Analytical forensic science is a 20 credit semester 1 module, which provides students with further information about forensic analytical chemistry, and further practical experience of forensic analytical techniques used in forensic laboratories. This module will also provide students with underpinning theory and practical experience of forensic analytical techniques to aid study at level 6.