

Liverpool John Moores University

Title: TRACE EVIDENCE ANALYSIS
Status: Definitive
Code: **5102FSBMOL** (122131)
Version Start Date: 01-08-2021

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

Team	Leader
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Jason Birkett	
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Academic Level: FHEQ5 **Credit Value:** 20 **Total Delivered Hours:** 60
Total Learning Hours: 200 **Private Study:** 140

Delivery Options

Course typically offered: Semester 1

Component	Contact Hours
Lecture	21
Practical	36
Workshop	3

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	Report	microscopy report	40	
Practice	Practical	trace evidence analysis	60	

Aims

This module will provide students with a thorough knowledge of the use of microscopy in trace evidence analysis examining methodologies employed in the laboratory.

Learning Outcomes

After completing the module the student should be able to:

- 1 Demonstrate an understanding of the principles of operation of different types of microscopes used in trace evidence analysis
- 2 Demonstrate an understanding of the applications of microscopy in trace evidence analysis.
- 3 Demonstrate practical skills relevant to trace evidence analysis.

Learning Outcomes of Assessments

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

Report	1	2
Practice	2	3

Outline Syllabus

Microscopy and imaging techniques.

Light microscopy; its applications in trace evidence analysis.

Types of imaging: for example bright field, dark field, polarised light, fluorescence.

Confocal and atomic force microscopy; applications in trace evidence analysis.

Electron Microscopy: general construction and principles of operation of transmission and scanning electron microscopes, specimen preparation, X-ray microanalysis; applications in trace evidence analysis.

Learning Activities

Lectures, practical sessions and workshops

In class practical test

Notes

This module is an introduction to forensic microscopy covering aspects relating to a number of areas of trace evidence analysis.