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Title: Forensic microscopy
Status: Definitive but changes made
Code: **6006FSBMOL** (117441)
Version Start Date: 01-08-2019

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

Team	Leader
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Academic Level: FHEQ6 **Credit Value:** 12 **Total Delivered Hours:** 24

Total Learning Hours: 120 **Private Study:** 96

Delivery Options

Course typically offered: Semester 1

Component	Contact Hours
Lecture	10
Practical	12
Workshop	2

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	Report		30	
Test	test		70	3

Aims

This module will provide students with a thorough knowledge of forensic microscopy

examining methodologies employed in the laboratory.

Learning Outcomes

After completing the module the student should be able to:

- 1 Critically evaluate scientific papers in current literature
- 2 Critically evaluate current methods of forensic microscopy for analysis of different sample types recording all aspects in a manner in keeping with current good practice
- 3 Demonstrate practical skills relevant to the topics covered

Learning Outcomes of Assessments

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

practical report	1	2
microscopy test	2	3

Outline Syllabus

Microscopic and imaging techniques.

Light Microscopy: its application in forensic science. Types of imaging: for example - bright field, dark field, polarised light, fluorescence, confocal microscopy.

Atomic force microscopy, microspectrophotometry

Electron Microscopy: general construction and principles of operation of transmission and scanning electron microscopes, specimen preparation, X-ray microanalysis, electron-energy-loss spectroscopy, Interpretation of analytical data, Analysis of micrographs. Use in forensic analysis.

Laser microdissection

Current research.

Learning Activities

Lectures, practical sessions and workshops
In class practical test

Notes

This module is an advanced level introduction to forensic microscopy covering aspects relating to a number of specialist areas. Current literature will be reviewed.