

## Liverpool John Moores University

Title: FORENSIC BIOSCIENCE  
Status: Definitive  
Code: **7005FSBMOL** (120796)  
Version Start Date: 01-08-2015

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

Team	Leader
Suzanne McColl	Y
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**Academic Level:** FHEQ7      **Credit Value:** 20.00      **Total Delivered Hours:** 40.00  
**Total Learning Hours:** 200      **Private Study:** 160

### Delivery Options

Course typically offered: Semester 1

Component	Contact Hours
Lecture	12.000
Off Site	4.000
Practical	12.000
Seminar	2.000
Workshop	10.000

**Grading Basis:** 40 %

### Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Presentation	Seminar	Seminar presentation based on case study and /or recent publications	50.0	
Portfolio	Portfolio	Case notes and laboratory findings from the practical classes	50.0	

### Aims

*The aims of this module are to allow students to critically appraise the use and analysis of biological material within a forensic context, demonstrating an understanding of the importance and limitations of such analysis. They should be able to perform a wide range of laboratory investigations pertinent to this area of study and interpret the results in a timely and appropriate fashion. Additionally, students should be able to review current literature in the area and discuss the limitations of a range of case studies, suggesting newer and/ or more appropriate methods of investigation.*

## **Learning Outcomes**

After completing the module the student should be able to:

- 1 Apply and adapt problem solving skills to unfamiliar and complex situations relevant to forensic bioscience
- 2 Critically evaluate established and developing techniques in forensic bioscience
- 3 Record, interpret and evaluate biological data in a manner appropriate for forensic science.

## **Learning Outcomes of Assessments**

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

Seminar presentation	1	2
Laboratory portfolio	2	3

## **Outline Syllabus**

*Forensic microbiology including for example, bioterrorism, the role of micro-organisms in decomposition and analysis of personal microbiota  
The role of the pathologist and the medicolegal autopsy including auxillary roles and analysis such as histology  
Forensic entomology - for example post mortem interval determination, entotoxicology  
Diagnosis of drowning - use of diatoms and cyanobacteria  
Pollen analysis  
Use of techniques such as stable isotope analysis*

## **Learning Activities**

Lectures, workshops, seminars, practicals and attendance at an autopsy.

## **Notes**

Advanced level study of the use of bio-organisms in a legal context such as

understanding and identifying microorganisms used in bioterrorism or entomology uses including PMI determination. Information relating to decomposition and related pathology based techniques will be introduced.