Forensic Bioscience

Module Information

2022.02, Approved

Summary Information

Module Code	6214NATSCI
Formal Module Title	Forensic Bioscience
Owning School	Biological and Environmental Sciences
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 6
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
Biological and Environmental Sciences

Learning Methods

Learning Method Type	Hours
Lecture	31
Practical	6
Workshop	11

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
JAN-CTY	CTY	January	12 Weeks

Aims and Outcomes

Aims	To critically review how biological evidence can contribute to a wide range of forensic investigations.

After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Evaluate the factors that influence the decay of human remains in a forensic context.
MLO2	2	Critically evaluate how fauna and flora contribute evidence in forensic investigations.
MLO3	3	Discuss the ways in which microbes and viruses can contribute to forensic investigations.
MLO4	4	Present and analyse forensic data/information using appropriate statistical/analytical techniques.
MLO5	5	Explain how biological evidence is collected, identified and processed in a forensic investigation.

Module Content

Outline Syllabus	This module will explore and assess the value that various organisms contribute towards crime reconstruction in forensic investigations. The morphology, physiology, and ecology of human remains throughout post-mortem decomposition processes will be examined in addition to the identification and analysis of ante-mortem trauma (e.g. wounds) during autopsy in forensic pathology. Environmental indicators including viruses, bacteria, microeukaryotes, plants, pollen, diatoms, invertebrates and vertebrates will be explored and considered within the context of various crime investigations including murder, serious assault, wildlife, and environmental crime. Common themes throughout the module include the use of biological evidence to estimate the time since death, identify geographic locations, and link persons and scenes of forensic interest. The collection, analysis, and interpretation of biological forensic evidence will be introduced in lectures with practical skills taught in laboratory practicals and workshops. Various international case examples and the findings from experimental research studies will be incorporated throughout. Students will design experiments in order to collect, analyse, and interpret forensic data which is directly applicable to crime reconstructions.
Module Overview	Within this module, you will learn about the applications of biological techniques in forensic science and be able to review how biological evidence can contribute to a wide range of forensic investigations.
Additional Information	This module is designed to highlight the important contributions of biological techniques in forensic science. By the end of the module, students should be able to use data obtained by these techniques in forensic interpretation.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Report	Practical Report	50	0	MLO4
Centralised Exam	Examination	50	2	MLO5, MLO2, MLO1, MLO3

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Kirstie Scott	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings

| Contact Name | Applies to all offerings | Offerings |