

Module Information

2022.02, Approved

Summary Information

Module Code	5101FSBMOL
Formal Module Title	Forensic Science Research Methods 2
Owning School	Pharmacy & Biomolecular Sciences
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 5
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
Pharmacy & Biomolecular Sciences

Learning Methods

Learning Method Type	Hours
Lecture	29
Practical	9
Tutorial	5
Workshop	17

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
			12 Weeks

Aims and Outcomes

Aims	The aims of this module are to provide forensic science students with tutorial and PDP support, theoretical knowledge and practical experience of some key laboratory techniques and prepare students for their Biomolecular Science Project at level 6 by the study and practice of essential research skills.
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Apply quality assurance and quality control concepts to forensic science casework.
MLO2	2	Analyse and present scientific data using a number of common approaches.
MLO3	3	Evaluate the importance of experimental design and apply these concepts in a research setting.

Module Content

Outline Syllabus	The following topics will be covered: • Quality control, quality control and the role of the forensic science regulator in encouraging standards in forensic science. • Impartiality in the criminal justice system and the need for ethics and morals. • Approaches to experimental design. • Forensic assay development and characterisation. • Validation, method validation and measurement uncertainty. • Forensic methods including evidence item examination, DNA Extraction, PCR, presumptive body fluid tests. • Health and Safety and risk assessment in respect to research projects and forensic casework. • Project management skills. • Hypothesis testing and forming. • Data analysis techniques including statistical interpretation and presentation of data. • Common approaches to present data.
Module Overview	The aim of this module is to provide you with tutorial and Personal Development Profile support, theoretical knowledge and practical experience of some key laboratory techniques and will prepare you for the Biomolecular Science Project at level 6 by the study and practice of essential research skills.
Additional Information	This module provides tutorial and PDP support to level 5 students. In addition to this students will gain theoretical knowledge and practical experience of a number of analytical techniques, be able to interpret and analyse data including the use of key statistical tests, improve their writing skills and reflective practice, develop research skills that will be helpful for their level 6 research project.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Centralised Exam	Critical Analysis of a Paper	50	2	MLO1
Presentation	Group Poster	50	0	MLO2, MLO3

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Jari Louhelainen	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings
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