

Liverpool John Moores University

Title: FORENSIC SCIENCE RESEARCH METHODS 1
Status: Definitive
Code: **4101FSBMOL** (122120)
Version Start Date: 01-08-2021

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

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Academic Level: FHEQ4 **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	16
Practical	16
Tutorial	6
Workshop	22

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Future Focus e-learning task	WSB	self-awareness statement	10	
Presentation	Oral	presentation	30	

Category	Short Description	Description	Weighting (%)	Exam Duration
Test	test	test	60	1

Aims

To enable students to develop a range of academic, research and transferable skills related to their programme of study.

Learning Outcomes

After completing the module the student should be able to:

- 1 Use simple numerical and mathematical skills in relation to laboratory procedures and basic chemical and biological calculations. Interpret written instructions, perform routine laboratory tasks and analyse both given data and practical results.
- 2 Identify and reflect upon the following aspects of personal development: strengths and weaknesses, motivations and values, ability to work with others
- 3 Perform independent research and present the results using appropriate techniques, such as graphing, mapping, tables, text and oral presentation methods.
- 4 Recognise scientific approaches and how to apply them in order to solve problems.

Learning Outcomes of Assessments

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

Self awareness statement	2		
Oral presentation	2	3	
practical test	1	3	4

Outline Syllabus

Written communication: scientific writing (reports and essays for example), reviewing scientific literature

General Laboratory Skills: Introduction to Health & Safety and good laboratory practice, the use of basic laboratory equipment

Basic laboratory calculations on concentration, amount, dilution

Numerical reasoning: expression of results, significant figures, linear equations, data handling and presentation (e.g. graphs, databases) and descriptive statistics (mean, SD and SE, median and mode, etc.).

Basic analytical statistics: for example T-tests - to include stats packages (SPSS and Excel)

Information literacy & ICT skills: Blackboard, tabulation, graphics, email, internet, images, hyperlinks, presentation software

Personal planning, organizing and employment skills, time management, skills auditing and skills development, target setting, action planning, using feedback. Problem solving: the nature of scientific enquiry, the Scientific Method, experimental design, hypothesis testing and project management

Learning Activities

Lectures, Practicals, workshops & tutorials

Notes

To facilitate effective study of Forensic Science by providing a foundation in basic methodology, data handling, IT, laboratory techniques and skills and study skills via lectures, practicals, workshops (including IT) and tutorials which are a mixture of academic material and transferable skills. This module will provide an opportunity for PDP.