Liverpool John Moores University

Title:	RESEARCH METHODS
Status:	Definitive
Code:	**7001PHASCI** (120445)
Version Start Date:	01-08-2015
Owning School/Faculty:	Pharmacy & Biomolecular Sciences
Teaching School/Faculty:	Pharmacy & Biomolecular Sciences

Team	Leader
Francesca Giuntini	Y
Andrew Leach	
Steve Enoch	
Gillian Hutcheon	
Judith Madden	

Academic Level:	FHEQ7	**Credit Value:**	20.00	**Total Delivered Hours:**	34.00
Total Learning Hours:	200	**Private Study:**	166		

Delivery Options
Course typically offered: Semester 1

Component	Contact Hours
Lecture	10.000
Practical	6.000
Workshop	18.000

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	ResPro		50.0	
Presentation	PostPre		25.0	
Portfolio	Lab Script		25.0	

Aims

To equip students with the necessary core skills to effectively design, plan, perform

and report scientific research.

Learning Outcomes

After completing the module the student should be able to:

1	Develop a strategy for a research project
2	Design and plan the experimental methodology using relevant techniques
3	Locate, evaluate and reference scientific literature relevant to a research project
4	Evaluate the health&safety and ethical implications of a research project
5	Present scientific findings in an appropriate manner

Learning Outcomes of Assessments

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

Research Proposal	1	2
Poster Presentation	3	5
E-lab Book	4	

Outline Syllabus

Overview of the Scientific Method
Designing a Research Project
Literature Searching
Literature Reviewing
Project Planning
Good Laboratory Practice
Data Analysis and Results Presentation
Referencing
Reporting Scientific Fundings
Publishing Research and Protecting Intellectual Property

Learning Activities

Lectures (flipped or traditional) introducing/covering the various topics of the module
9 workshops (2 hours each)–various contents aligned with topics delivered in the lectures
3 hours practical class to introduce data collection, data analysis, and presentation of results, and to assess the understanding of GLP.

Notes

Assessment

1. Students will be allocated a specific topic to write a research proposal, which will assess ability to locate, critically review and reference literature sources as well as their scientific writing skills (LO1, LO2, LO3). This will need to be allocated at the start of the module and will therefore be different to the research project allocation.
2. Students will keep electronic record of their lab work, including COSHH forms, S.O.P.'s, raw data, etc., on Blackboard (or http://www.cambridgesoft.com/Ensemble/E-notebook), which would allow assessing LO4 and enable students to begin the process of PDP, which could be continued (although not directly assessed) throughout the programme and especially in the Research Project module.
3. The poster presentation will be based on the experimental work and data analysis carried out during practical classes, and will assess LO5. The presentation will assess students' ability to present research in the form of a poster with brief supporting verbal commentary.