

Liverpool John Moores University

Title: Research Methods
Status: Definitive
Code: **7230DRO** (124801)
Version Start Date: 01-08-2020

Owning School/Faculty: Engineering
Teaching School/Faculty: Engineering

Team	Leader
Rebecca Bartlett	Y

Academic Level: FHEQ7 **Credit Value:** 10 **Total Delivered Hours:** 18
Total Learning Hours: 100 **Private Study:** 82

Delivery Options

Course typically offered: Semester 1

Component	Contact Hours
Lecture	12
Tutorial	6

Grading Basis: 50 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	RM-AS1	Literature review and critique of designated paper and 6 citations	50	
Report	RM-AS2	2000 word project proposal.	50	

Aims

The aims of this module are to prepare the students to undertake their own research projects and to deliver the required skill set for successful completion of their investigations.

Learning Outcomes

After completing the module the student should be able to:

- 1 Critically analyse and reflect on the work of other practitioners/researchers
- 2 Design and formulate experimental methods and undertake quantitative and qualitative evaluation of the results.
- 3 Formulate a research plan, demonstrating an understanding of the effect of risks and uncertainties in the delivery of a project.
- 4 Present research results according to appropriate conventions

Learning Outcomes of Assessments

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

Literature review and critique	1			
Project planning document	2	3	4	

Outline Syllabus

Introduction to search methods

Styles and conventions associated with technical writing, presentations and speaking to technical audiences.

Project planning activities and tools, time management, use of Gantt charts.

Strategies for designing experiments and statistical considerations.

Data handling, quantitative analysis of results and presentation of results to technical and managerial audiences.

Management of project risk and health and safety considerations when conducting tests and experiments.

Learning Activities

The project will be supported by regular lectures and supporting tutorials/seminars

Notes

This module is important as it sets the groundwork for the completion of the MSc project. The module provides a grounding in the skills required to formulate a project plan, design experiments, mitigate against uncertainties and deliver a comprehensive description of the results.