

## Liverpool John Moores University

Title: Research Skills  
Status: Definitive  
Code: **7130ENG** (120341)  
Version Start Date: 01-08-2016

Owning School/Faculty: Electronics and Electrical Engineering  
Teaching School/Faculty: Electronics and Electrical Engineering

Team	Leader
Karl Jones	Y

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

### Delivery Options

Course typically offered: Runs Twice - S1 & S2

Component	Contact Hours
Lecture	12
Tutorial	6

**Grading Basis:** 50 %

### Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	AS1	Literature review and critique of designated paper and 6 citations	50	
Report	AS2		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 engineering 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 grounding in the skill required to formulate a project plan, design experiments, militate against uncertainties and deliver a comprehensive description of the results.