

Liverpool John Moores University

Title: Engineering Project
Status: Definitive
Code: **6155ELE** (120945)
Version Start Date: 01-08-2019

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

Team	Leader
David Ellis	Y
Zhigang Ji	

Academic Level: FHEQ6 **Credit Value:** 30 **Total Delivered Hours:** 12
Total Learning Hours: 300 **Private Study:** 288

Delivery Options

Course typically offered: Standard Year Long

Component	Contact Hours
Tutorial	12

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Report	AS1	Interim Report	20	
Report	AS2	Final Report	60	
Presentation	AS3	Presentation & Viva	20	

Aims

The project aims to provide a supervised but student led learning activity in a relevant area of engineering or technology. It aims to develop the academic, technical and organisational skills required to undertake a substantial individual engineering project from specification to conclusion.

Learning Outcomes

After completing the module the student should be able to:

- 1 Conceptualise and plan a supervised but self-led project
- 2 Carry out a self-managed programme of work according to good project management practices
- 3 Research and analyse the established body of knowledge relevant to the project
- 4 Demonstrate deep technical understanding of their project
- 5 Communicate technical information clearly and concisely in written and oral forms
- 6 Critically evaluate all aspects of a project and formulate justified conclusions

Learning Outcomes of Assessments

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

Interim Report	1	2	3	5	
Final Report	2	3	4	5	6
Presentation and Viva	4	5	6		

Outline Syllabus

Projects may involve experiment, analysis, design and/or computation and should allow a student to demonstrate achievement of the module learning outcomes.

Learning Activities

The project will be supported by regular tutorials with a project supervisor and occasional seminars on topics relating to research methods, critical writing/thinking and presentation skills.

Notes

The project provides the opportunity to conduct a major supervised learning activity on a relevant engineering or technical topic. The project requires the student to demonstrate good project management, critical evaluation and presentational skills.

Students undertaking a Masters programme are expected to include a deep mathematical analysis and use modelling techniques that can be utilised to a greater depth in the L7 module, 'Extended Engineering Project'. Any work undertaken at L6 must be appropriate for further development to a more advanced level of analysis at L7

In the context of the MEng/BEng Computer Technology analysis may include mathematical analysis and computer modelling. However, it is expected that a greater emphasis on programmes applications, embedded systems and

communications will be included in an integrated system. All project work will have a complete analysis, mathematically based or otherwise.

In the context of the MEng/BEng Electronic Engineering, a Project with a detailed design and analysis of an electronic circuit or function is appropriate.

In the context of the MEng/BEng Electrical Power Engineering, a Project with a detailed design and analysis of a power electrical/electronic circuit or system is appropriate. For example, modelling of a AC Machine or Inverter.

In the context of the MEng/BEng Control and Automation Engineering, a Project with a detailed design and analysis of a control system is appropriate. For example, modelling, simulation and testing of a PID control system.

In the context of the MEng/BEng Electronics and Software Engineering, a Project with a detailed design and analysis of a software/hardware interface is appropriate.

In the context of the MEng/BEng Electrical and Electronic Engineering, a Project with a detailed design and analysis of an electrical/electronic circuit or function is appropriate. For example, embedded electronics may be used to control a power circuits such as a controlled rectifier for a specific task.