

Liverpool John Moores University

Title: Electrical Engineering Practice 2
Status: Definitive
Code: **5306ELE** (121425)
Version Start Date: 01-08-2021

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

Team	Leader
Barry Gomm	Y

Academic Level: FHEQ5 **Credit Value:** 20 **Total Delivered Hours:** 72
Total Learning Hours: 200 **Private Study:** 128

Delivery Options

Course typically offered: Semester 2

Component	Contact Hours
Lecture	24
Practical	36
Tutorial	12

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Portfolio	AS1	Project Development	60	
Report	AS2	Individual literature review and project plan	40	

Aims

To enable students to develop the skills required to practice as a professional engineer. This module provides a broad range of experiences with an emphasis upon the systematic thinking, planning and execution required of engineers in a modern professional environment. The students will be required to design build and test an electronic product to a given specification. The product will incorporate

elements covered elsewhere on the course, including analogue electronics and a programmable device such as a microcontroller or FPGA.

Learning Outcomes

After completing the module the student should be able to:

- 1 Design, build and test an electronic product to a given specification.
- 2 Demonstrate a commitment to conduct engineering activities in a professional manner.
- 3 Research a topic, find relevant literature and produce a critical review.
- 4 Demonstrate an awareness of the importance of management in the context of engineering projects. Apply principles of project management to the allocation of tasks and resources.

Learning Outcomes of Assessments

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

Project Development	1	2
Lit Review/project plan	3	4

Outline Syllabus

The list below provides an indicative list of topics which may be covered in this module:

Experimental Practice

- *Complete a set of laboratory experiments*
- *Observation, measurement and recording of experimental results*
- *Data handling*
- *Presenting and reporting of results*

Professional Development

- *World of Work: Silver Award*
- *Health & Safety*
- *Ethics*
- *Institutional Code of Conduct*

Research Methods

- *Research & Library Skills*
- *Report Writing*
- *Critical Thinking*

Engineering Management

- *Project Planning*
- *Project Management*

Learning Activities

Students will be split into two groups and undertake a supervised laboratory sessions every fortnight, lectures and tutorials will take place in the weeks between lab sessions.

Notes

The professional development portion of the module is assessed on a pass/fail basis. Students must complete the assessment exercises to a satisfactory standard in order to achieve a pass grade in this module.