Liverpool John Moores University

Title:	Engineering and Technology Practice
Status:	Definitive
Code:	**3101FNDET** (121523)
Version Start Date:	01-08-2021
Owning School/Faculty:	Engineering
Teaching School/Faculty:	Engineering

Team	Leader
Gerard Edwards	Y

Academic Level:	FHEQ3	**Credit Value:**	20	**Total Delivered Hours:**	66
Total Learning Hours:	200	**Private Study:**	134		

Delivery Options
Course typically offered: Standard Year Long

Component	Contact Hours
Practical	33
Workshop	33

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Portfolio	AS1	Academic skills portfolio	50	
Portfolio	AS2	Practical skills portfolio	50	

Aims

This module aims to develop the practical skills of students by applying what they learn in their mathematics and physics modules. It will provide an experience of experimental planning, execution and report writing, as well as activities aimed at developing problem solving skills. It also embeds the study skills which are required for students to become effective and independent learners.

Learning Outcomes

After completing the module the student should be able to:

1	Answer questions on a laboratory exercise which they have planned and executed
2	Research a topic in engineering or technology, and write a properly referenced report on their findings
3	Apply principles of mathematics and science to solve a problem in an engineering and technology context
4	Demonstrate that they have the academic skills required to be an effective and independent learner in a higher education environment.

Learning Outcomes of Assessments

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

Academic Skills	2	4
Practical Skills	1	3

Outline Syllabus

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

Study Skills

- *Read effectively and identify appropriate resources to study topical engineering problems*
- *Identify their study needs and plan their study effectively*
- *Work effectively in a group*
- *Present information in an appropriate style*

Experimental Measurement

- *Random and systematic errors in measurements*
- *Precision, repeatability, resolution and accuracy of measurements*
- *Uncertainty in measurement*
- *Representing uncertainty*

Experimental Methods

- *Report writing*
- *Handling experimental data*
- *Graphical representation*
- *Errors*
- *Analysis of results, and the formulation of conclusions*

Experimental Practice

- *Complete a series of experiments, keeping a logbook to record notes, measurements and observations.*

Learning Activities

Laboratory experiments, tutorials, online tests

Notes

This year long module supports students in developing the academic and experimental skills needed to become effective and independent learners. It included regular contact with personal tutors, encouraging a smooth transition into Higher Education.