

Summary Information

Module Code	3101FNDMEC
Formal Module Title	Engineering and Technology Practice
Owning School	Engineering
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 3
Grading Schema	40

Teaching Responsibility

LJMU Schools involved in Delivery
Engineering

Learning Methods

Learning Method Type	Hours
Lecture	11
Practical	38
Tutorial	11

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
SEP-CTY	CTY	September	28 Weeks

Aims and Outcomes

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 academic and study skills which are required for students to become effective and independent learners.
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Demonstrate the academic skills required to be an effective and independent learner in a higher education environment.
MLO2	2	Apply principles of mathematics and science to solve problems in an engineering and technology context.
MLO3	3	Perform a series of engineering experiments, process the data collected, and produce a formal technical report.

Module Content

Outline Syllabus	The list below provides an indicative list of topics which may be covered in this module: Study Skills: • Skills@LJMU: Academic Study Skills, Maths and Statistics, IT Skills, Library Skills • Read effectively and identify appropriate resources to study topical engineering problems • Identify study needs and plan study effectively • Work effectively in a group • Present information in an appropriate style • Introduction to research skills Experimental Measurement: • Physical quantities and SI Units • Random and systematic errors in measurements • Precision, repeatability, resolution and accuracy of measurements • Uncertainty in measurement • Representing uncertainty Experimental Methods and Practice: • Performing experiments, keeping a logbook to record notes, measurements and observations. • Handling and processing experimental data • Graphical and tabular representation of data • Errors, uncertainty, accuracy and precision • Analysis of results and the formulation of conclusions • Technical report writing
Module Overview	
Additional Information	This year long module supports students in developing the academic and experimental skills needed to become effective and independent learners. It includes regular contact with personal tutors, encouraging a smooth transition into Higher Education.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Portfolio	Academic Skills	40	0	MLO1, MLO2
Report	Experimental Practice	60	0	MLO3, MLO2

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Michael Stringfellow	Yes	N/A

Partner Module Team

Contact Name	Applies to all offerings	Offerings
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