

Approved, 2022.02

Summary Information

Module Code	3519IFESG
Formal Module Title	Applied Mathematics 2
Owning School	Engineering
Career	Undergraduate
Credits	10
Academic level	FHEQ Level 3
Grading Schema	40

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings
Jack Mullett	Yes	N/A

Module Team Member

Contact Name	Applies to all offerings	Offerings
Partner Module Team		

Contact Name	Applies to all offerings	Offerings
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Teaching Responsibility

LJMU Schools involved in Delivery	
LJMU Partner Taught	

Partner Teaching Institution

Institution Name	
Study Group	

Learning Methods

Learning Method Type	Hours
Lecture	13
Seminar	26

Module Offering(s)

Offering Code	Location	Start Month	Duration
APR-PAR	PAR	April	12 Weeks
JAN-PAR	PAR	January	12 Weeks

Aims and Outcomes

Aims	To build upon the basics of Applied Mathematics introduced in a first semester module and to give
	students the grounding necessary to an Engineering degree programme.

Learning Outcomes

After completing the module the student should be able to:

Code	Description
MLO1	Identify and combine appropriate equations in order to calculate the displacement, time, velocity or acceleration in problems of linear, projectile or circular motion.
MLO2	Formulate expressions of conservation of energy in problems involving transfer of energy between two objects or conversion of energy from one type to another.
MLO3	Formulate expressions of the conservation of linear momentum in two-body problems and use them in order to predict the outcome of impacts and collisions.

Module Content

Outline Syllabus

Kinematics- Introduction to the quantities required for the description of motion- Linear motion with constant acceleration - Projectile motion- Circular motionEnergy and momentum- Work, energy transfers and conversions - Power- Impulse of a force - Linear momentum

Module Overview

Additional Information	
None	

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Learning Outcome Mapping
Exam	Examination	100	1.5	MLO3, MLO2, MLO1