

Liverpool John Moores University

Title: APPLIED MATHS 1
Status: Definitive
Code: **3509IFYSP** (107131)
Version Start Date: 01-08-2011

Owning School/Faculty: Liverpool Business School
Teaching School/Faculty: Liverpool Business School

Team	Leader
Elizabeth Thompson	Y

Academic Level: FHEQ3
Credit Value: 12.00
Total Delivered Hours: 58.00
Total Learning Hours: 120
Private Study: 62

Delivery Options

Course typically offered: Runs Twice - S1 & S2

Component	Contact Hours
Lecture	55.000

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	AS1	Written Examination	100.0	3.00

Aims

To introduce the relationships between forces, linear motion and energy and the conditions for static equilibrium of a body.

To facilitate the formative development of students by broadening their knowledge base, deepening their understanding of topics studied and practising appropriate study skills, to include problem solving, through the setting of weekly homework assignments and regular class tests.

To develop independent study skills in research, word processing, group work and effective note-taking.

Learning Outcomes

After completing the module the student should be able to:

- 1 Recognise that mathematical models can be used to investigate physical events.
- 2 Distinguish between scalar and vector quantities giving physical examples.
- 3 Understand and apply the relationships between distance and time for linear motion.
- 4 Make calculations in consistent units.
- 5 Evaluate simple problems of relative motion.
- 6 Apply principles of static equilibrium including limiting equilibrium.
- 7 Understand and apply Newton's Laws of Motion.
- 8 Understand and apply relationships between work, energy and power.

Learning Outcomes of Assessments

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

EXAM	1	2	3	4	5	6	7	8
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Outline Syllabus

Vectors

Forces and Equilibrium

Relative Motion

Newton's Laws of Motion

Friction - Hooke's Law

Work, Energy and Power

Learning Activities

55 hours of contact time, the balance made up of homework assignments and self-study.

References

Course Material	Book
Author	Sadler & Thorning
Publishing Year	2001
Title	Understanding Mechanics
Subtitle	
Edition	
Publisher	Oxford
ISBN	

Notes

This module is to prepare students for undergraduate engineering courses.