

Liverpool John Moores University

Title: Maths for Science
Status: Definitive
Code: **3522IFESG** (124229)
Version Start Date: 01-08-2021

Owning School/Faculty: Engineering
Teaching School/Faculty: Study Group

Team	Leader
Corina Doran	Y
Jack Mullett	

Academic Level: FHEQ3 **Credit Value:** 10 **Total Delivered Hours:** 34.5
Total Learning Hours: 100 **Private Study:** 65.5

Delivery Options

Course typically offered: Runs Twice - S1 & S2

Component	Contact Hours
Lecture	18
Seminar	9
Workshop	6

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	AS1	Examination	100	1.5

Aims

To provide a basic knowledge of mathematics for ongoing progression to a degree programme in science.

To develop skill in mathematical application, method and technique.

Learning Outcomes

After completing the module the student should be able to:

- 1 Demonstrate an understanding of mathematical notation, terminology, conventions and units as applied to science.
- 2 Interpret in mathematical terms verbal, graphical and tabular information.
- 3 Apply mathematical methods and techniques to scientific concepts.

Learning Outcomes of Assessments

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

Examination	1	2	3
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Outline Syllabus

Basic numeracy – factors, brackets, prime numbers, square numbers/roots, cube numbers/roots, SI units, decimal places, significant figures.

Fractions and reciprocals – multiplying, dividing, adding, subtracting.

Percentages.

Powers and Logarithms.

Approximation and errors – accuracy and precision.

Introduction to graphs – using and recognising graphs, gradient of a graph.

Exponential growth and decay.

Simultaneous equations.

Introductory statistics.

Learning Activities

A mix of lectures, seminars and workshops with in-class testing and homework to support independent learning. In each session the theory session is followed by a number of worked examples which are typical of, and lead to individual exercises for each unit. By listening to the theory and reading through the worked examples, the student should be able to make considerable progress with the exercise that follows.

Notes

This module aims to build confidence in mathematical skills necessary to study science, particularly chemistry.