

Liverpool John Moores University

Title: ESSENTIAL PURE MATHEMATICS
Status: Definitive faculty appr change
Code: **6020PSM** (104208)
Version Start Date: 01-08-2016

Owning School/Faculty: Education
Teaching School/Faculty: Education

Team	Leader
Neil Stanley	Y

Academic Level: FHEQ6
Credit Value: 24
Total Delivered Hours: 48
Total Learning Hours: 240
Private Study: 192

Delivery Options

Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	30
Seminar	16

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	Exam	2 hour exam	50	2
Essay	coursework	(Numerical integration 3000 word equivalent)	50	

Aims

To ensure that all students have a secure knowledge of pure mathematics at Key Stages 3 and 4 and beyond, and are able to structure that knowledge in a meaningful way and apply it to a wide variety of situations.

Learning Outcomes

After completing the module the student should be able to:

- 1 Select and use appropriate mathematical techniques to solve a variety of abstract mathematical problems in seen contexts.
- 2 Select and use appropriate mathematical techniques to solve a variety of mathematical problems in unseen contexts.
- 3 Identify areas for further development in their own knowledge of mathematics; devise and execute a plan to meet these needs.

Learning Outcomes of Assessments

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

EXAM	1	
CW	2	3

Outline Syllabus

The module will focus on the following broad topics:

*Algebra and functions
Sequences and series
Exponentials and logarithms
Coordinate geometry
Trigonometry
Differentiation
Integration
Numerical methods
Vectors*

Learning Activities

Mathematical concepts will be explored in a series of interactive sessions supported by tasks for independent/small group learning. These will use a mix of media e.g. web-based materials including video tutorials and on-line practice exercises, practical activities using ICT as well as more traditional text-book approaches. Assessment consists of several exercises throughout the course and a terminal examination.

Notes

This module aims to identify topics in A Level pure mathematics which are familiar to the students and extend the depth of their knowledge and understanding, establishing a secure foundation of algebra and calculus in preparation for later mathematics modules.

