

Liverpool John Moores University

Title: Calculus 1
Status: Definitive
Code: **4232EDSTUD** (122795)
Version Start Date: 01-08-2018

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

Team	Leader
Amir Asghari	Y

Academic Level: FHEQ4 **Credit Value:** 20 **Total Delivered Hours:** 42
Total Learning Hours: 200 **Private Study:** 158

Delivery Options

Course typically offered: Semester 1

Component	Contact Hours
Lecture	20
Workshop	20

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Portfolio	AS1	Portfolio (equivalent of 2500 words): Regular engagement in different formats	50	
Exam	AS2	Exam	50	2

Aims

This module aims deepen students' understanding of differentiation and integration, the ways they are related to each other, and used in practice.

Learning Outcomes

After completing the module the student should be able to:

- 1 Use single and basic multivariate calculus techniques to model and solve problems in a variety of contexts
- 2 Understand the intuitive conceptual underpinning of calculus

Learning Outcomes of Assessments

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

Portfolio	1	2
Exam	1	2

Outline Syllabus

Gradients and differentiation
Integration as summation and anti-differentiation
The Fundamental Theorem of Calculus
Functions of several variables
Partial differentiation
Multiple integrals as iterated integrals

Learning Activities

Lectures, workshops, guided discovery, independent study.

Notes

This module aims deepen students' understanding of differentiation and integration, the ways they are related to each other, and used in practice.