

Liverpool John Moores University

Title: Calculus 2
Status: Definitive
Code: **5232EDSTUD** (122897)
Version Start Date: 01-08-2018

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

Team	Leader
Amir Asghari	Y

Academic Level: FHEQ5 **Credit Value:** 20 **Total Delivered Hours:** 42
Total Learning Hours: 200 **Private Study:** 158

Delivery Options

Course typically offered: Semester 2

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 underpins students' understanding of calculus by familiarising them with the notion of limit and related concepts of sequences and series and extending their understanding into the solution of differential equations.

Learning Outcomes

After completing the module the student should be able to:

- 1 Understand the formal underpinnings of calculus, including concepts of sequences and series
- 2 Model and solve problems using ordinary differential equations

Learning Outcomes of Assessments

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

Portfolio	1	2
Exam	1	2

Outline Syllabus

Limits

Sequences

Series

Maclaurin Series

Ordinary Differential Equations (First and Second Orders)

Learning Activities

Lectures, workshops, guided discovery, independent study.

Notes

In this module, students are introduced to the basic concepts of real analysis, often seen as the underpinning of higher level mathematics. Although a focus on practical applicability remains, students will also be expected to engage with the more abstract and theoretical notions involved.