UNIVERSITY OF LEICESTER

Module Specification

MA2032 Calculus and Analysis 3

Academic Year: 2019/0
Module Level: Year 2
Scheme: UG
Department: Mathematics
Credits: 20

Student Workload (hours)

Lectures	
Seminars	
Practical Classes & Workshops	
Tutorials	
Fieldwork	
Project Supervision	
Guided Independent Study	
Demonstration	
Supervised time in studio/workshop	
Work Based Learning	
Placement	
Year Abroad	
Total Module Hours	

Period: Semester 1
Occurence: E
Coordinator: Sergei Petrovskiy
Mark Scheme: UG Module Mark Scheme

No.	Assessment Description	Weight %	Qual Mark	Exam Hours	Ass't Group	Alt Reass't
001	Examination (Final)	70		2		
002	Coursework	30				
101	Examination (Final)	100		2		Y

Intended Learning Outcomes

- Differentiate and integrate vector valued functions, use Cartesian, polar and spherical coordinates with the corresponding Jacobians to calculate the change of variables.
- Compute line, path, surface and volume integrals of scalar and vector functions in two and three dimensions, apply Stokes, Green and Divergence theorems
- Use Taylor series for multivariable functions and perform estimates based on Taylor series, make calculations with basic Fourier series and use Parseval's theorem.

Teaching and Learning Methods

Lectures, feedback classes, computer-aided learning, problem sheets sheets.

Assessment Methods

Examination, coursework

Pre-Requisites

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Co-Requisites

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Excluded Combinations

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Guided Independent Study: Indicative Activities

Directed reading, reviewing of lecture recordings, solving coursework problems, exam revision.

Last Published: 8 November 2019