

Liverpool John Moores University

Title: Number Theory
Status: Definitive
Code: **5231EDSTUD** (122896)
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: 40
Total Learning Hours: 200
Private Study: 160

Delivery Options

Course typically offered: Semester 1

Component	Contact Hours
Lecture	20
Seminar	6
Workshop	14

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Portfolio	AS1	Portfolio of tasks and reflections (equivalent of 4500 words)	100	

Aims

This module aims to familiarise students with the concepts of number theory, basing them on a foundation of reflecting on their own prior learning and how these concepts are used, understood and misunderstood in schools and the wider world.

Learning Outcomes

After completing the module the student should be able to:

- 1 Reflect on ways in which number theory and related concepts are learned, used and understood
- 2 Apply the principles of mathematical proof in the context of number theory

Learning Outcomes of Assessments

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

Portfolio	1	2
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Outline Syllabus

Number concepts in school and college mathematics
Errors and misconceptions in number
Divisibility, highest common divisors, Euclid's algorithm
Prime numbers
Modular arithmetic and linear congruences
RSA codes

Learning Activities

Lectures, seminars, workshops, guided reading, online tasks, independent study

Notes

Students will be expected to engage with the learning on this module in a reflective manner: their understanding of how number theoretical concepts are learned in schools and, specifically, how they have learned these concepts will inform how they engage with the more advanced ideas introduced in the module.