

MAS 722 - Topics in Pure Mathematics I

Academic Year: 2013/2014, Semester II.

Aims and Objectives

Prepare students for independent research in the area of Pure Mathematics. The aim of this topic course is to introduce some key ideas and concepts to the students in order to sketch a general overview of some of the main active research fields in algebra, number theory and geometry.

Syllabus

A tentative content of this topic course (as far as time will permit) is:

- Algebraic number theory
- Galois theory and applications
- Class field theory
- Algebraic curves
- Elliptic curves

Assessment

Examinations: 50%

Continuous Assessment: 50%

Prerequisites

This course is intended to all the students that are wishing to know more about abstract algebra, number theory and geometry. It is advisable to know the group, commutative ring and field theories, taught in the core course MAS 712 "Algebraic methods".

Registration for this course is subject to approval by the Division.