

MATHS 713

Logic and Set Theory

2nd semester 2007

This course is intended for students who have passed an undergraduate course in logic and wish to learn more about this fascinating subject. This course is offered every odd numbered year.

The content divides into two parts.

The first part is a study of the foundations of pure mathematics, formalising the notions of "mathematical proof" and "mathematical structure" through Predicate Calculus and Model Theory. It includes an exploration of the limits of these formalizations, including Gödel's incompleteness theorems.

The second part is a study of Axiomatic Set Theory that includes a discussion of consistency and independence, as well as ordinals and cardinal arithmetic.

The **pre-requisite** for the course is a pass in MATHS 315, PHIL 305 or an equivalent course. Your enrolment must also be approved by the Department of Mathematics. This approval should be a formality if you have the right pre-requisite

Further information can be obtained from the:

MATHS 713 course coordinator

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