

# Graduate Programme in Mathematics by Research (M.Sc.)

## Graduation Requirements for students admitted until AY2022/23

1. Pass MA5198 Graduate Seminar Course in Mathematics, and
2. Pass a minimum of five other MA courses at level 5000 or higher, with at least three from the Basic Course List, and
3. Obtain satisfactory grade in Intermediate English course, for a foreign student who is not exempted from it, and
4. Obtain a minimum [Grade Point Average \(GPA\)](#) of 3.00 or an average grade of at least B-, and
5. Complete a thesis to the satisfaction of the examination panel.
6. *Students are allowed to take MA5401, but not MA5402.*

### BASIC COURSE LIST

- MA5203 Graduate Algebra I
- MA5204 Commutative and Homological Algebra or MA5218 Representation Theory
- MA5205 Graduate Analysis I
- MA5206 Graduate Analysis II or MA5217 Graduate Complex Analysis
- MA5209 Algebraic Topology
- MA5210 Differentiable Manifolds
- MA5213 Advanced Partial Differential Equations
- MA5232 Modeling and Numerical Simulations
- MA5233 Computational Mathematics
- MA5241 Computational Harmonic Analysis
- MA5243 Advanced Mathematical Programming
- MA5245 Advanced Financial Mathematics
- MA5248 Stochastic Analysis in Mathematical Finance
- *MA5249 Stochastic Processes and Algorithms*
- MA5259 Introductory Probability
- MA5260 Advanced Probability
- MA5269 Optimal Stopping and Stochastic Control in Finance

## Continuation Requirement

A student will be issued a warning for any semester in which his/her GPA falls below 3.00.

If in the following semester, the student's GPA again falls below 3.00 but is above 2.50, he/ she will be placed on probation.

The candidature of a student may be terminated if he/she obtains the following:

1. A GPA of less than 2.50 for two consecutive semesters;
2. A GPA of less than 3.00 for three consecutive semesters.

For research scholars who do not meet the continuation requirements, their monthly stipend or scholarship/fee waiver may be terminated without notice. Reinstatement will be reviewed after the scholar meets the continuation requirement.

GPA for continuation is computed based on all courses read (be it pass or fail), regardless of whether they are counted towards graduation later on.