

B.Sc. (Hons) with Major in Mathematics with Specialisation in Pure Mathematics

Graduation Requirements for students admitted in AY2021/2022 or after

To be awarded a **B.Sc.(Hons) with primary major in Mathematics with Specialisation in Pure Mathematics (PM)**, in addition to the University, College and primary major in Mathematics requirements, a candidate must satisfy the following:

Course Level	Major Requirements	Level Units	Cumulative Major Units
1000	1. Pass MA1100/MA1100T Basic Discrete Mathematics	4	4
2000	2. Pass all the following courses: <ul style="list-style-type: none"> MA2001 Linear Algebra I MA2002 Calculus MA2101/MA2101S Linear Algebra II MA2104 Multivariable Calculus MA2108/MA2108S Mathematical Analysis I MA2116/MA2216/ST2131 Probability 3. Pass two additional courses coded MA22xx/MA32xx/MA42xx (except MAx288/MAx289/MAx288x/MAx289x)	32-36	36-40
3000	4. Pass *five courses coded MA32xx/MA42xx/MA52xx/MA62xx (except MAx288/MAx289/MAx288x/MAx289x) or ST3236 or ST4238 *At most three courses (12 Units) can be coded MA52xx/MA62xx	20-23	56-62
4000	5. Pass MA4198 Mathematics Capstone Project 6. Pass five* additional courses from List PM <i>The five courses used to satisfy item 6 cannot be concurrently used to satisfy item 3 or 4.</i>	24	80-86

List PM

- MA4203 Galois Theory
- MA4207 Mathematical Logic
- MA4211 Functional Analysis
- MA4221 Partial Differential Equations
- MA4233 Dynamical Systems
- MA4235 Graph Theory
- MA4262 Measure and Integration
- MA4263 Introduction to Analytic Number Theory
- MA4266 Introduction to Algebraic Topology
- MA4271 Differential Geometry in Curves and Surfaces
- MA4273 Algebraic Geometry in Curves and Surfaces
- MA4288P Undergraduate Project in Mathematics