

# B.Sc. & B.Sc. (Hons) with Major in Mathematics

## Sample Study Plan for Students Admitted in AY2019/20 or after

Occasionally certain modules listed below may not be offered in a particular year.

LEVEL	RECOMMENDED MODULES
1000	<ul style="list-style-type: none"> <li>• MA1100 Basic Discrete Mathematics</li> <li>• MA1101R Linear Algebra I</li> <li>• MA1102R Calculus</li> <li>• CS1010/CS1010E/CS1010S/CS1010X/CS1101S Programming Methodology</li> </ul>
2000	<ul style="list-style-type: none"> <li>• MA2101/MA2101S Linear Algebra II</li> <li>• MA2104 Multivariable Calculus</li> <li>• MA2108/MA2108S Mathematical Analysis I</li> <li>• MA2202/MA2202S Algebra I</li> <li>• MA2216/ST2131 Probability</li> <li>• One of the following modules:               <ul style="list-style-type: none"> <li>– MA2214 Combinatorics and Graphs I</li> <li>– MA2219 Introduction to Geometry</li> </ul> </li> </ul>
3000	<ul style="list-style-type: none"> <li>• MA3201 Algebra II</li> <li>• MA3209 Metric and Topological Spaces</li> <li>• MA3210 Mathematical Analysis II</li> <li>• MA3211 Complex Analysis I</li> <li>• One* of the following modules:               <ul style="list-style-type: none"> <li>– MA3205 Set Theory</li> <li>– MA3220 Ordinary Differential Equations <sup>1</sup></li> <li>– MA3265 Introduction to Number Theory</li> </ul> </li> </ul> <p>*One may need to take additional Level 3000 modules as unrestrictive elective modules to serve as prerequisites for certain Level 4000 modules.</p>

LEVEL	RECOMMENDED MODULES
4000	<ul style="list-style-type: none"><li>• MA4199 Honours Project in Mathematics</li><li>• MA4203 Galois Theory</li><li>• MA4262 Measure and Integration</li><li>• MA4271 Differential Geometry of Curves and Surfaces</li><li>• Two of the following modules:<ul style="list-style-type: none"><li>– MA4207 Mathematical Logic</li><li>– MA4221 Partial Differential Equations <sup>1</sup></li><li>– MA4229 Fourier Analysis and Approximation</li><li>– MA4273 Algebraic Geometry of Curves and Surfaces</li></ul></li></ul> <p><u>Notes:</u> <sup>1</sup> MA4221 requires MA3220 as prerequisite</p>

*Updated 01 July 2019*