

B.Sc. & B.Sc. (Hons) with Major in Applied Mathematics (without specialization, but with interest in Scientific Computing)

Sample Study Plan for Students Admitted in AY2017/18 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"> • MA1100 Fundamental Concepts of Mathematics • MA1101R Linear Algebra I • MA1102R Calculus • CS1010/CS1010E/CS1010S/CS1010FC/CS1010X Programming Methodology
2000	<ul style="list-style-type: none"> • MA2101/MA2101S Linear Algebra II • MA2104 Multivariable Calculus • MA2108/MA2108S Mathematical Analysis I • MA2213 Numerical Analysis I • MA2216/ST2131 Probability • One of the following modules: <ul style="list-style-type: none"> – MA2202/MA2202S Algebra I or MA3218 Applied Algebra – MA2214 Combinatorics and Graphs I – ST2132 Mathematical Statistics
3000	<ul style="list-style-type: none"> • MA3110/MA3110S Mathematical Analysis II • MA3111/MA3111S Complex Analysis I • MA3220 Ordinary Differential Equations • MA3227 Numerical Analysis II • One of the following modules: <ul style="list-style-type: none"> – MA3209 Mathematical Analysis III¹ – MA3236 Nonlinear Programming³ – MA3252 Linear and Network Optimization^{2, 3} – MA3264 Mathematical Modelling <p><u>Note:</u> 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">• MA4199 Honours Project in Mathematics• MA4221 Partial Differential Equations• MA4230 Matrix Computation• MA4255 Numerical Methods in Differential Equations• Two of the following modules:<ul style="list-style-type: none">– MA4211 Functional Analysis¹– MA4254 Discrete Optimization²– MA4264 Game Theory³– MA4268 Mathematics for Visual Data Processing– MA4270 Data Modelling and Computation

¹ MA4211 requires MA3209 as prerequisite

² MA4254 requires MA3252 as prerequisite

³ MA4264 requires MA3236 or MA3252 as prerequisite

Updated 30 June 2017