

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~~ and AY2018/19

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 III ¹ MA3236 Nonlinear Programming ³ MA3252 Linear and Network Optimization ^{2,3} MA3264 Mathematical Modelling <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">• 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 <p><u>Notes:</u> ¹ MA4211 requires MA3209 as prerequisite ² MA4254 requires MA3252 as prerequisite ³ MA4264 requires MA3236 or MA3252 as prerequisite</p> |

Updated 30 June 2017

Updated 01 July 2019