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 AY2019/2020 or after

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

LEVEL	RECOMMENDED MODULES
1000	- MA1100 Basic Discrete Mathematics - MA1101R Linear Algebra I - MA1102R Calculus - CS1010/CS1010E/CS1010S/CS1010X/CS1101S Programming Methodology
2000	- MA2101/MA2101S Linear Algebra II - MA2104 Multivariable Calculus - MA2108/MA2108S Mathematical Analysis I - MA2213 Numerical Analysis I - MA2216/ST2131 Probability - MA2214 Combinatorics and Graphs I
3000	- MA3220 Ordinary Differential Equations - MA3227 Numerical Analysis II - MA3210 Mathematical Analysis II *Two* of the following modules:* – MA3211 Complex Analysis I – MA3236 Nonlinear Programming – MA3252 Linear and Network Optimization [1] – MA3259 Mathematical Methods in Genomics – MA3264 Mathematical Modelling **One may need to take additional Level 3000 modules as unrestrictive elective modules to serve as prerequisites for certain Level 4000 modules.*

LEVEL	RECOMMENDED MODULES
4000	- MA4199 Honours Project in Mathematics - MA4229 Fourier Analysis and Approximation - MA4230 Matrix Computation - MA4255 Numerical Methods in Differential Equations - MA4270 Data Modelling and Computation - One of the following modules: – MA4221 Partial Differential Equations – MA4254 Discrete Optimization [1] – MA4268 Mathematics for Visual Data Processing – CS4232 Theory of Computation or CS4234 Optimisation Algorithms [2] Notes: [1] MA4254 requires MA3252 as prerequisite [2] CS4234 requires CS3230 as prerequisite

Updated 02 July 2019