NUS National University of Singapore | Department of Mathematics Faculty of Science

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

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 Fundamental Concepts of Mathematics • MA1101R Linear Algebra I • MA1102R Calculus • CS1010/CS1010E/CS1010S/CS1010FC/CS1010X Programming Methodology
2000	• MA2101/MA2101S Linear Algebra II • MA2104 Multivariable Calculus • MA2108/MA2108S Mathematical Analysis I • MA2213 Numerical Analysis I • MA2216/ST2131 Probability • ST2132 Mathematical Statistics
3000	• MA3220 Ordinary Differential Equations • MA3252 Linear and Network Optimization • MA3269 Mathematical Finance I • Two* of the following modules: – MA3210 Mathematical Analysis II – MA3227 Numerical Analysis II – MA3236 Nonlinear Programming – MA3238 Stochastic Process I – ST3131 Regression Analysis [1] • *Optional unrestrictive elective module*: – QF3101 Investment Instruments: Theory and Computation **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 • MA4230 Matrix Computation • MA4254 Discrete Optimization • MA4255 Numerical Methods in Differential Equations • MA4269 Mathematical Finance II • One of the following modules: – MA4221 Partial Differential Equations – MA4264 Game Theory – MA4260 Stochastic Operations Research – ST4245 Statistical Methods for Finance [1] Notes: [1] ST4245 requires ST3131 as prerequisite

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