![NUS Department of Mathematics Faculty of Science logo]

B.Sc. & B.Sc. (Hons) with Major in Applied Mathematics with Specialization in Operations Research and Financial Mathematics (ORFM)

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 - One of the following modules: - MA2214 Combinatorics and Graph I [1] - ST2132 Mathematical Statistics
3000	- MA3236 Nonlinear Programming - MA3252 Linear and Network Optimization - MA3269 Mathematical Finance I - Two* of the following modules: - MA3210 Mathematical Analysis II - MA3220 Ordinary Differential Equations [2] - MA3233 Combinatorics and Graph II [1, 3] - MA3238 Stochastic Process I - ST3131 Regression Analysis [4] *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 - MA4254 Discrete Optimization - MA4260 Stochastic Operations Research - MA4264 Game Theory - MA4269 Mathematical Finance II - One* of the following modules: – MA4230 Matrix Computation – MA4235 Topics in Graph Theory [3] – MA4255 Numerical Methods in Differential Equations [2] – ST4245 Statistical Methods for Finance [4] Notes: [1] MA3233 requires MA2214 as prerequisite [2] MA4255 requires MA3220 as prerequisite [3] MA4235 requires MA3233 as prerequisite [4] ST4245 requires ST3131 as prerequisite

Updated 02 July 2019