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 AY2014/15 or AY2015/16

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

<table>
<thead>
<tr>
<th>LEVEL</th>
<th>RECOMMENDED MODULES</th>
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| 1000  | - MA1100 Fundamental Concepts of Mathematics  
        - MA1101R Linear Algebra I  
        - MA1102R Calculus  
        - MA1104 Multivariable Calculus  
        - CS1010/CS1010E/CS1010S/CS1010FC/CS1010X Programming Methodology |
| 2000  | - MA2101/MA2101S Linear Algebra II  
        - MA2108/MA2108S Mathematical Analysis I  
        - MA2213 Numerical Analysis I  
        - MA2216/ST2131 Probability  
        - One of the following modules:  
          - MA2202/MA2202S Algebra I or MA3218 Applied Algebra  
          - MA2214 Combinatorics and Graphs I  
          - ST2132 Mathematical Statistics |
| 3000  | - MA3110/MA3110S Mathematical Analysis II  
        - MA3111/MA3111S Complex Analysis I  
        - MA3236 Nonlinear Programming  
        - MA3252 Linear and Network Optimization  
        - MA3269 Mathematical Finance I  
        - ST3131 Regression Analysis |

Note: One may need to take additional Level 3000 modules as unrestricted elective modules to serve as prerequisites for certain Level 4000 modules.
**LEVEL 4000**
- MA4199 Honours Project in Mathematics
- MA4254 Discrete Optimization
- MA4264 Game Theory
- MA4269 Mathematical Finance II
- ST4245 Statistical Methods for Finance
- Two of the following modules:
  - MA4230 Matrix Computation
  - MA4235 Topics in Graph Theory¹
  - MA4255 Numerical Methods in Differential Equations²
  - MA4260 Stochastic Operations Research

¹ MA4235 requires MA3233 as prerequisite (MA3233 requires MA2214 as prerequisite)
² MA4255 requires MA3220 as prerequisite

*Updated 19 Nov 2016*