# B.Sc. & B.Sc. (Hons) with Major in Mathematics

## Sample Study Plan for Students Admitted in AY2016/17

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/MA2104 Multivariable Calculus  
       • CS1010/CS1010E/CS1010S/CS1010X Programming Methodology  |
| 2000  | • MA2101/MA2101S Linear Algebra II  
       • MA2108/MA2108S Mathematical Analysis I  
       • MA2202/MA2202S Algebra I  
       • MA2216/ST2131 Probability  
       • One of the following modules:  
         – MA2214 Combinatorics and Graphs I  
         – MA2219 Introduction to Geometry  |
| 3000  | • MA3110/MA3110S Mathematical Analysis II  
       • MA3111/MA3111S Complex Analysis I  
       • MA3201 Algebra II  
       • MA3209 Mathematical Analysis III  
       • One of the following modules:  
         – MA3205 Set Theory  
         – MA3220 Ordinary Differential Equations  
         – MA3265 Introduction to Number Theory  
         – MA3266 Introduction to Fourier Analysis  |

*Note: One may need to take additional Level 3000 modules as unrestrictive elective modules to serve as prerequisites for certain Level 4000 modules*
### LEVEL 4000

- MA4199 Honours Project in Mathematics
- MA4203 Galois Theory
- MA4211 Functional Analysis
- MA4262 Measure and Integration
- MA4266 Topology
- One of the following modules:
  - MA4207 Mathematical Logic
  - MA4221 Partial Differential Equations
  - MA4247 Complex Analysis II
  - MA4271 Differential Geometry of Curves and Surfaces

1 MA4221 requires MA3220 as prerequisite

*Updated 30 June 2017*