

**Sample Study Plan for Major in Mathematics
with Second Major in Data Analytics and Minor in Quantitative Finance
(For students matriculated in AY2021/2022 or after)**

| Year 1 | | Year 2 | | Year 3 | | Year 4 | |
|--|-------------------------------|---|--|---|---|----------------------------|--|
| Sem 1 | Sem 2 | Sem 1 | Sem 2 | Sem 1 | Sem 2 | Sem 1 | Sem 2 |
| HSA1000 Asian Interconnections | | Scientific Inquiry II | Artificial Intelligence | Communities and Engagement | Interdisciplinary I | Interdisciplinary II | UE1 |
| HSH1000 The Human Condition | | | | | | | |
| HSI1000 How Science Works, Why Science Works | | Digital Literacy (CS1010S) | MA2101/MA2101S Linear Algebra II | MA22xx | MA32xx | MA32xx | QF3103 Advanced Mathematics in Quantitative Finance |
| HSS1000 Understanding Social Complexity | | | | | | | |
| ^ DSA1101 Introduction to Data Science | DTK1234 Design Thinking | Writing (SP1541) | MA2108/MA2108S Mathematical Analysis I | MA22xx | MA32xx | MA32xx | # MA32xx |
| MA1100/MA1100T Basic Discrete Mathematics | ** MA2001 Linear Algebra I | * MA2116/ST2131 Probability | ST2132 Mathematical Statistics | CS2040 Data Structures and Algorithms | DSA3102 Essential Data Analytics Tools: Convex Optimisation | MA32xx | MA4198 Mathematics Capstone Project |
| * MA2002 Calculus | MA2104 Multivariable Calculus | QF1100 Introduction to Quantitative Finance | DSA2101 Essential Data Analytics Tools: Data Visualisation | QF2104 Fundamentals of Quantitative Finance | QF3101 Investment Instruments and Risk Management | ST3131 Regression Analysis | DSA4212 Optimisation for Large-Scale Data-Driven Inference |

* Double-counted between Major and Second Major | ** Triple-counted between Major, Second Major and Minor | ^ Satisfies the Data Literacy requirement

Top-up necessitated by the triple counting of MA2001

- Note:
- To find out how HSA1000, HSH1000, HSI1000, HSS1000 are pre-allocated, click [here](#).
 - Students have to complete all CHS Common Curriculum courses in their first two years except for the following 3 courses:
 - Communities and Engagement course – can be taken from Years 2 to 4
 - Two Interdisciplinary courses – can be taken in Years 3 and 4