*Electives*

| Subject Code | Subject Title | Level | Credit | Assessment CA : EXAM (%) |
|---|---|---|---|---|
| AMA2104 | Probability and Engineering Statistics | 2 | 3 | 40:60 |
| AMA2112 | Mathematics II | 2 | 3 | 40:60 |
| AMA2691 | Probability & Distributions | 2 | 3 | 40:60 |
| AMA3201 | Computational Methods | 3 | 3 | 40:60 |
| AMA3231 | Numerical Methods and Computing | 3 | 3 | 40:60 |
| AMA3304 | Theory of Interest and Portfolio Analysis | 3 | 3 | 40:60 |
| AMA3602 | Applied Linear Models | 3 | 3 | 40:60 |
| AMA3640 | Statistical Inference | 3 | 3 | 40:60 |
| AMA3658 | Stochastic Processes for Investment | 3 | 3 | 40:60 |
| AMA3707 | Real Analysis | 3 | 3 | 40:60 |
| AMA3708 | Differential Equations | 3 | 3 | 40:60 |
| AMA3724 | Further Mathematical Methods | 3 | 3 | 40:60 |
| AMA3820 | Operations Research Methods | 3 | 3 | 40:60 |
| AMA4325 | Derivative Pricing | 4 | 3 | 40:60 |
| AMA4363 | Loss Models | 4 | 3 | 40:60 |
| AMA4380 | Algorithmic and High Frequency Trading | 4 | 3 | 50:50 |
| AMA4381 | Econometrics | 4 | 3 | 40:60 |
| AMA4390 | Quantitative Finance and Financial Technology | 4 | 3 | 50:50 |
| AMA4602 | High Dimensional Data Analysis | 4 | 3 | 40:60 |
| AMA4650 | Forecasting and Applied Time Series Analysis | 4 | 3 | 40:60 |
| AMA4688 | Simulation | 4 | 3 | 40:60 |
| AMA4840 | Decision Analysis | 4 | 3 | 40:60 |
| AMA4850 | Optimization Methods | 4 | 3 | 40:60 |

The list shows the nature of subjects for students' reference.

| Subject Code | Subject Title | Nature of Subject |
|---|---|---|
| AMA2111 | Mathematics I | Applied Mathematics |
| AMA2112 | Mathematics II | Applied Mathematics |
| AMA2131 | Mathematics for Engineers | Applied Mathematics |
| AMA2380 | Engineering Mathematics | Applied Mathematics |
| AMA2707 | Intermediate Calculus and Linear Algebra | Applied Mathematics |
| AMA2882 | Mathematics for Scientists and Engineers | Applied Mathematics |
| AMA3201 | Computational Methods | Applied Mathematics |
| AMA3231 | Numerical Methods and Computing | Applied Mathematics |
| AMA3707 | Real Analysis | Applied Mathematics |
| AMA3708 | Differential Equations | Applied Mathematics |
| AMA3724 | Further Mathematical Methods | Applied Mathematics |
| **Subject Code** | **Subject Title** | **Nature of Subject** |
| AMA1501 | Introduction to Statistics for Business | Applied Statistics |
| AMA1602 | Introduction to Statistics | Applied Statistics |
| AMA2104 | Probability and Engineering Statistics | Applied Statistics |
| AMA2691 | Probability & Distributions | Applied Statistics |
| AMA3602 | Applied Linear Models | Applied Statistics |
| AMA3640 | Statistical Inference | Applied Statistics |
| AMA3658 | Stochastic Processes for Investment | Applied Statistics |
| AMA4363 | Loss Models | Applied Statistics |
| AMA4381 | Econometrics | Applied Statistics |
| AMA4602 | High Dimensional Data Analysis | Applied Statistics |
| AMA4650 | Forecasting and Applied Time Series Analysis | Applied Statistics |
| **Subject Code** | **Subject Title** | **Nature of Subject** |
| AMA3304 | Theory of Interest and Portfolio Analysis | Financial Mathematics |
| AMA4325 | Derivative Pricing | Financial Mathematics |
| AMA4380 | Algorithmic and High Frequency Trading | Financial Mathematics |
| AMA4390 | Quantitative Finance and Financial Technology | Financial Mathematics |
| **Subject Code** | **Subject Title** | **Nature of Subject** |
| AMA3820 | Operations Research Methods | Operational Research |
| AMA4688 | Simulation | Operational Research |
| AMA4840 | Decision Analysis | Operational Research |
| AMA4850 | Optimization Methods | Operational Research |

The diagram shows the possible study patterns of the Minor Programme for the 2019/20, the 2020/21, the 2021/22, and the 2022/23 cohort intakes for students' reference.



Calculus
AMA1007
AMA1120
AMA1130/1131
AMA1500
(Not offered by Minor Programme)

Linear Algebra
AMA1007
AMA1120
(Not offered by Minor Programme)

Probability & Statistics
AMA1501
AMA1602

AMA2691

AMA2104

AMA2707 or
AMA2111 or
AMA2131 or
AMA2308 or
AMA2380 or
AMA2882

AMA2111

AMA2112

Or

AMA3602

AMA3640

Or

Or

AMA3304

AMA3658

AMA3724#

AMA3201#
AMA3231
AMA3708
AMA3820##
AMA4850#

Or
AMA4325

Or
AMA2691

Or

AMA4602

AMA4380

Or
AMA3658

AMA4325

AMA4363

AMA4650
AMA4381

AMA4390

Or AMA3820/AMA4851

AMA4840
AMA4688

Possible Prerequisite:
# AMA2380+AMA1120
## AMA1007/AMA1120

No Pre-requisites:
AMA2104
AMA3707