

7. CURRICULUM

Key: CA = Continuous Assessment

EXAM = Examination

To complete the programme, students should fulfill the credit requirement being shown in Table I. In which, at least 9 of the 18 credits required for satisfying the Minor requirements should be at level 3 or above. Subject to approval by the Department, a student may count up to 6 credits from their Major (i.e. DSR) towards this Minor.

Table I

Core (compulsory) subjects	6 credits
Electives	12 credits
Total credit required	18 credits

Core (Compulsory subjects)

One from				
Subject Code	Subject Title	Level	Credit	Assessment CA : EXAM (%)
AMA1501*	Introduction to Statistics for Business (For FB and SHTM students only)	1	3	50:50
AMA1602*	Introduction to Statistics	1	3	50:50

*Students who have completed AMA2104 **should not** take AMA1501/AMA1602 thereafter. They are required to apply for exemption and take ONE elective subject to replace AMA1501/AMA1602.

AND

one from				
Subject Code	Subject Title	Level	Credit	Assessment CA : EXAM (%)
AMA2111#	Mathematics I	2	3	40:60
AMA2131#	Mathematics for Engineers	2	3	40:60
AMA2380#	Engineering Mathematics	2	3	40:60
AMA2707#	Intermediate Calculus and Linear Algebra	2	3	40:60
AMA2882#	Mathematics for Scientists and Engineers	2	4	40:60

Students who have completed AMA2511, AMA2512 or AMA290 **should not** take AMA2111, AMA2131, AMA2308, AMA2380, AMA2707 or AMA2882. They are required to take ONE elective subject to replace AMA2111, AMA2131, AMA2308, AMA2380, AMA2707 and AMA2882 instead.

Remarks : Students who have compulsory subject AMA1501 or AMA2111 double counting towards their Major and Secondary Major in AIDA, should apply for exemption and take ONE elective subject to replace AMA1501 or AMA2111.

Electives

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

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

<i>Subject Code</i>	<i>Subject Title</i>	<i>Nature of Subject</i>
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
<i>Subject Code</i>	<i>Subject Title</i>	<i>Nature of Subject</i>
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
<i>Subject Code</i>	<i>Subject Title</i>	<i>Nature of Subject</i>
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
<i>Subject Code</i>	<i>Subject Title</i>	<i>Nature of Subject</i>
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.

