

SCHOOL OF MATHEMATICS, STATISTICS AND ACTUARIAL SCIENCE

Head of School: Prof Peter Hydon
School Website: www.kent.ac.uk/smsas

Please refer to the online Module Catalogue for full details of all modules:
<https://www.kent.ac.uk/courses/modules>

Note: It is ultimately your responsibility to ensure that you are registered for the correct modules for your programme.

Please select a link below to view the Stage 2+ requirements for your programme:

- [Actuarial Science: BSc](#)
- [Actuarial Science with a Foundation Year: BSc](#)
- [Actuarial Science with a Year in Industry: BSc](#)
- [Financial Mathematics: BSc](#)
- [Financial Mathematics with a Year in Industry: BSc](#)
- [Mathematics: BSc](#)
- [Mathematics: MMATH](#)
- [Mathematics with a Year in Industry: BSc](#)
- [Mathematics with a Year in Industry: MMATH](#)
- [Mathematics and Accounting & Finance: BA](#)
- [Mathematics and Accounting & Finance with a Year in Industry: BA](#)
- [Mathematics and Statistics: BSc](#)
- [Mathematics and Statistics with a Year in Industry: BSc](#)
- [Mathematics with Secondary Education: BSc](#)

ACTUARIAL SCIENCE
ACTUARIAL SCIENCE WITH A FOUNDATION YEAR
 Single Honours

ACTSCI:BSC
ACTSCI-F-4:BSC

STAGE 2 - 120 credits

You must take the following compulsory modules (120 credits)*:

Compulsory modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA501	Statistics for Insurance	15	Spring	5	MAST5010
MA516	Actuarial Mathematics 1	15	Autumn	5	MACT5160
MA527	Corporate Finance for Actuaries	15	Spring	5	MACT5270
MA528	Financial Reports and Their Analysis	15	Spring	5	MACT5280
MA5501	Applied Statistical Modelling 1	15	Spring	5	MAST5001
MA5505	Linear Partial Differential Equations	15	Autumn	5	MAST5005
MA5507	Mathematical Statistics	15	Autumn	5	MAST5007
MA5511	Optimisation with Financial Applications	15	Autumn	5	MAST5011

ACTUARIAL SCIENCE
ACTUARIAL SCIENCE WITH A FOUNDATION YEAR
 Single Honours

ACTSCI:BSC
ACTSCI-F-4:BSC

STAGE 3 - 120 credits

You must take the following compulsory modules (120 credits)*:

Compulsory modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA509	Actuarial Practice	30	Autumn & Spring	6	MACT5090
MA525	Survival Models	15	Autumn	6	MACT5250
MA533	Contingencies 2	15	Spring	6	MACT5330
MA535	Portfolio Theory and Asset Pricing Models	15	Autumn	6	MACT5350
MA537	Mathematics of Financial Derivatives	15	Spring	6	MAST5370
MA539	Financial Modelling	15	Spring	6	MACT5390
MA636	Stochastic Processes	15	Autumn	6	MAST6360

*Students with advanced standing and with the agreement of the admissions tutor and Director of Studies, may study some modules in a different year to that indicated below and/or take additional modules.

ACTUARIAL SCIENCE WITH A YEAR IN INDUSTRY**ACTSCI-S:BSC**

Single Honours

STAGE 2 - 120 credits**You must take the following compulsory modules (120 credits):**

Compulsory modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA501	Statistics for Insurance	15	Spring	5	<i>MAST5010</i>
MA516	Actuarial Mathematics 1	15	Autumn	5	<i>MACT5160</i>
MA527	Corporate Finance for Actuaries	15	Spring	5	<i>MACT5270</i>
MA528	Financial Reports and Their Analysis	15	Spring	5	<i>MACT5280</i>
MA5501	Applied Statistical Modelling 1	15	Spring	5	<i>MAST5001</i>
MA5505	Linear Partial Differential Equations	15	Autumn	5	<i>MAST5005</i>
MA5507	Mathematical Statistics	15	Autumn	5	<i>MAST5007</i>
MA5511	Optimisation with Financial Applications	15	Autumn	5	<i>MAST5011</i>

ACTUARIAL SCIENCE WITH A YEAR IN INDUSTRY**ACTSCI-S:BSC**

Single Honours

STAGE S - 120 credits**You must take the following compulsory modules (120 credits):**

Compulsory module:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA5801*	Industrial Placement Experience	90	Autumn & Spring	5	<i>MAST5801</i>
MA5802*	Industrial Placement (Report and Presentation)	30	Autumn & Spring	5	<i>MAST5802</i>

*This module cannot be compensated, trailed or condoned.

ACTUARIAL SCIENCE WITH A YEAR IN INDUSTRY**ACTSCI-S:BSC**

Single Honours

STAGE 3 - 120 credits**You must take the following compulsory modules (120 credits):**

Compulsory modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA509	Actuarial Practice	30	Autumn & Spring	6	<i>MACT5090</i>
MA525	Survival Models	15	Autumn	6	<i>MACT5250</i>
MA533	Contingencies 2	15	Spring	6	<i>MACT5330</i>
MA535	Portfolio Theory and Asset Pricing Models	15	Autumn	6	<i>MACT5350</i>
MA537	Mathematics of Financial Derivatives	15	Spring	6	<i>MAST5370</i>
MA539	Financial Modelling	15	Spring	6	<i>MACT5390</i>
MA636	Stochastic Processes	15	Autumn	6	<i>MAST6360</i>

FINANCIAL MATHEMATICS**FINMATHS:BSC**

Single Honours

STAGE 2 - 120 credits**You must take the following compulsory modules (90 credits):**

Compulsory modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA5501	Applied Statistical Modelling 1	15	Spring	5	<i>MAST5001</i>
MA5505	Linear Partial Differential Equations	15	Autumn	5	<i>MAST5005</i>
MA5506	Macroeconomics for Financial Mathematics	15	Autumn	5	<i>MAST5006</i>
MA5507	Mathematical Statistics	15	Autumn	5	<i>MAST5007</i>
MA5509	Numerical Methods	15	Spring	5	<i>MAST5009</i>
MA5511	Optimisation with Financial Applications	15	Autumn	5	<i>MAST5011</i>

PLUS 30 credits from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA501	Statistics for Insurance	15	Spring	5	<i>MAST5010</i>
MA517	Corporate Finance for Financial Mathematics	15	Spring	5	<i>MAST5170</i>
MA5512	Ordinary Differential Equations	15	Spring	5	<i>MAST5012</i>

FINANCIAL MATHEMATICS**FINMATHS:BSC**

Single Honours

STAGE 3 - 120 credits**You must take the following compulsory modules (75 credits):**

Compulsory modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA535	Portfolio Theory and Asset Pricing Models	15	Autumn	6	<i>MACT5350</i>
MA636	Stochastic Processes	15	Autumn	6	<i>MAST6360</i>
MA6529	Statistical Learning	15	Spring	6	<i>MAST6029</i>
MA6534	Derivative Markets	15	Autumn	6	<i>MAST6034</i>
MA6540	Financial Econometrics	15	Spring	6	<i>MAST6040</i>

PLUS 45 credits from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA537	Mathematics of Financial Derivatives	15	Spring	6	<i>MACT5370</i>
MA549	Discrete Mathematics	15	Spring	6	<i>MAST5490</i>
MA587	Numerical Solution of Differential Equations	15	Autumn	6	<i>MAST5870</i>
MA6503 †	Communicating Mathematics	15	Autumn	6	<i>MAST6703</i>
MA6504 †	Discovering and Communicating Mathematics	30	Autumn & Spring	6	<i>MAST6704</i>
MA6512	Applied Statistical Modelling 2	15	Spring	6	<i>MAST6012</i>
MA6518	Games and Strategy	15	Spring	6	<i>MAST6018</i>
MA771	Computational Statistics	15	Spring	6	<i>MAST7710</i>

† Only one of these modules may be taken.

FINANCIAL MATHEMATICS WITH A YEAR IN INDUSTRY**FINMATHS-S:BSC**

Single Honours

STAGE 2 - 120 credits**You must take the following compulsory modules (90 credits):**

Compulsory modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA5501	Applied Statistical Modelling 1	15	Spring	5	MAST5001
MA5505	Linear Partial Differential Equations	15	Autumn	5	MAST5005
MA5506	Macroeconomics for Financial Mathematics	15	Autumn	5	MAST5006
MA5507	Mathematical Statistics	15	Autumn	5	MAST5007
MA5509	Numerical Methods	15	Spring	5	MAST5009
MA5511	Optimisation with Financial Applications	15	Autumn	5	MAST5011

PLUS 30 credits from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA501	Statistics for Insurance	15	Spring	5	MAST5010
MA517	Corporate Finance for Financial Mathematics	15	Spring	5	MAST5170
MA5512	Ordinary Differential Equations	15	Spring	5	MAST5012

FINANCIAL MATHEMATICS WITH A YEAR IN INDUSTRY**FINMATHS-S:BSC**

Single Honours

STAGE S - 120 credits**You must take the following compulsory modules (120 credits):**

Compulsory module:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA5801*	Industrial Placement Experience	90	Autumn & Spring	5	MAST5801
MA5802*	Industrial Placement (Report and Presentation)	30	Autumn & Spring	5	MAST5802

*This module cannot be compensated, trailed or condoned.

FINANCIAL MATHEMATICS WITH A YEAR IN INDUSTRY**FINMATHS-S:BSC**

Single Honours

STAGE 3 - 120 credits**You must take the following compulsory modules (75 credits):**

Compulsory modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA535	Portfolio Theory and Asset Pricing Models	15	Autumn	6	<i>MACT5350</i>
MA636	Stochastic Processes	15	Autumn	6	<i>MAST6360</i>
MA6529	Statistical Learning	15	Spring	6	<i>MAST6029</i>
MA6534	Derivative Markets	15	Autumn	6	<i>MAST6034</i>
MA6540	Financial Econometrics	15	Spring	6	<i>MAST6040</i>

PLUS 45 credits from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA537	Mathematics of Financial Derivatives	15	Spring	6	<i>MACT5370</i>
MA549	Discrete Mathematics	15	Spring	6	<i>MAST5490</i>
MA587	Numerical Solution of Differential Equations	15	Autumn	6	<i>MAST5870</i>
MA6503†	Communicating Mathematics	15	Autumn	6	<i>MAST6703</i>
MA6504†	Discovering and Communicating Mathematics	30	Autumn & Spring	6	<i>MAST6704</i>
MA6512	Applied Statistical Modelling 2	15	Spring	6	<i>MAST6012</i>
MA6518	Games and Strategy	15	Spring	6	<i>MAST6018</i>
MA771	Computational Statistics	15	Spring	6	<i>MAST7710</i>

† Only one of these modules may be taken.

MATHEMATICS
MATHEMATICS WITH A FOUNDATION YEAR
 Single Honours

MATHS:BSC
MATHS-F-4:BSC

STAGE 2 - 120 credits

You must take the following compulsory modules (45 credits):

Compulsory modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA5503	Groups and Symmetries	15	Autumn	5	MAST5003
MA5505	Linear Partial Differential Equations	15	Autumn	5	MAST5005
MA5513	Real Analysis 2	15	Autumn	5	MAST5013

PLUS 75 credits from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA5501	Applied Statistical Modelling 1	15	Spring	5	MAST5001
MA5502	Curves and Surfaces	15	Spring	5	MAST5002
MA5504	Lagrangian and Hamiltonian Dynamics	15	Spring	5	MAST5004
MA5507	Mathematical Statistics	15	Autumn	5	MAST5007
MA5509	Numerical Methods	15	Spring	5	MAST5009
MA5512	Ordinary Differential Equations	15	Spring	5	MAST5012
MA5514	Rings and Fields	15	Spring	5	MAST5014
MA566	Number Theory	15	Autumn	5	MAST5660

MATHEMATICS
MATHEMATICS WITH A FOUNDATION YEAR
 Single Honours

MATHS:BSC
MATHS-F-4:BSC

STAGE 3 - 120 credits

You may select up to 60 credits from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA636	Stochastic Processes	15	Autumn	6	MAST6360
MA639	Time Series Modelling and Simulation	15	Spring	6	MAST6390
MA6512	Applied Statistical Modelling 2	15	Spring	6	MAST6012
MA6528	Principles of Data Collection	15	Autumn	6	MAST6028
MA6529	Statistical Learning	15	Spring	6	MAST6029
MA771	Computational Statistics	15	Spring	6	MAST7710

The remaining credits should be chosen from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA549	Discrete Mathematics	15	Spring	6	MAST5490
MA567	Topology Not running 20/21	15	Autumn	6	MAST5670
MA568	Orthogonal Polynomials and Special Functions	15	Spring	6	MAST5680
MA574	Polynomials in Several Variables	15	Autumn	6	MAST5740
MA576	Groups and Representations	15	Spring	6	MAST6003
MA587	Numerical Solution of Differential Equations	15	Autumn	6	MAST5870
MA603	Introduction to Lie Groups and Lie Algebras	15	Spring	6	MAST6030
MA607	Quantum Mechanics	15	Autumn	6	MAST6004
MA6503†	Communicating Mathematics	15	Autumn	6	MAST6703
MA6504†	Discovering and Communicating Mathematics	30	Autumn & Spring	6	MAST6704
MA6517	Functions of a Complex Variable	15	Autumn	6	MAST6017
MA6518	Games and Strategy	15	Spring	6	MAST6018
MA6522	Integrable Systems	15	Spring	6	MAST6022
MA6591	Mathematics in the World of Finance	15	Autumn	6	MAST6091
MA691	Linear and Nonlinear Waves	15	Autumn	6	MAST6002
MA692	Operators and Matrices	15	Spring	6	MAST6005

† Only one of these modules may be taken.

MATHEMATICS (4 year programme)
Single Honours

MATHS-4:MMATH

STAGE 2 - 120 credits

You must take the following compulsory modules (45 credits):

Compulsory modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA5503	Groups and Symmetries	15	Autumn	5	MAST5003
MA5505	Linear Partial Differential Equations	15	Autumn	5	MAST5005
MA5513	Real Analysis 2	15	Autumn	5	MAST5013

PLUS 75 credits from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA5501	Applied Statistical Modelling 1	15	Spring	5	MAST5001
MA5502	Curves and Surfaces	15	Spring	5	MAST5002
MA5504	Lagrangian and Hamiltonian Dynamics	15	Spring	5	MAST5004
MA5507	Mathematical Statistics	15	Autumn	5	MAST5007
MA5509	Numerical Methods	15	Spring	5	MAST5009
MA5512	Ordinary Differential Equations	15	Spring	5	MAST5012
MA5514	Rings and Fields	15	Spring	5	MAST5014
MA566	Number Theory	15	Autumn	5	MAST5660

MATHEMATICS (4 year programme)
Single Honours

MATHS-4:MMATH

STAGE 3 - 120 credits

You may select up to 60 credits from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA636	Stochastic Processes	15	Autumn	6	MAST6360
MA639	Time Series Modelling and Simulation	15	Spring	6	MAST6390
MA6512	Applied Statistical Modelling 2	15	Spring	6	MAST6012
MA6528	Principles of Data Collection	15	Autumn	6	MAST6028
MA6529	Statistical Learning	15	Spring	6	MAST6029
MA771	Computational Statistics	15	Spring	6	MAST7710

The remaining credits should be chosen from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA549	Discrete Mathematics	15	Spring	6	MAST5490
MA567	Topology Not running 20/21	15	Autumn	6	MAST5670
MA568	Orthogonal Polynomials and Special Functions	15	Spring	6	MAST5680
MA574	Polynomials in Several Variables	15	Autumn	6	MAST5740
MA576	Groups and Representations	15	Spring	6	MAST6003
MA587	Numerical Solution of Differential Equations	15	Autumn	6	MAST5870
MA603	Introduction to Lie Groups and Lie Algebras	15	Spring	6	MAST6030
MA607	Quantum Mechanics	15	Autumn	6	MAST6004
MA6503	Communicating Mathematics	15	Autumn	6	MAST6703
MA6517	Functions of a Complex Variable	15	Autumn	6	MAST6017
MA6518	Games and Strategy	15	Spring	6	MAST6018
MA6522	Integrable Systems	15	Spring	6	MAST6022
MA6591	Mathematics in the World of Finance	15	Autumn	6	MAST6091
MA691	Linear and Nonlinear Waves	15	Autumn	6	MAST6002
MA692	Operators and Matrices	15	Spring	6	MAST6005

MATHEMATICS (4 year programme)
Single Honours

MATHS-4:MMATH

STAGE 4 - 120 credits

You must take the following compulsory module (45 credits):

Compulsory module:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA702	Dissertation for MMath Mathematics	45	Autumn & Spring	7	MAST7020

PLUS 75 credits from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA561	Introduction to Lie Groups and Algebras	15	Spring	7	MAST5610
MA7503‡	Communicating Mathematics	15	Autumn	7	MAST7703
MA7515	Discrete Mathematics	15	Spring	7	MAST7015
MA7522	Integrable Systems	15	Spring	7	MAST7022
MA7526	Nonlinear Systems and Applications	15	Spring	7	MAST7026
MA7527	Polynomials in Several Variables	15	Autumn	7	MAST7027
MA7532	Topology Not running 20/21	15	Autumn	7	MAST7032
MA776	Groups and Representations	15	Spring	7	MAST7003
MA791	Linear and Nonlinear Waves	15	Autumn	7	MAST7002
MA792	Operators and Matrices	15	Spring	7	MAST7005
MA967	Quantum Mechanics	15	Autumn	7	MAST7004

‡ This module **must** be taken in Stage 4 if MA6503 not taken in Stage 3

MATHEMATICS WITH A YEAR IN INDUSTRY**MATHS-S:BSC**

Single Honours

STAGE 2 - 120 credits**You must take the following compulsory modules (45 credits):**

Compulsory modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA5503	Groups and Symmetries	15	Autumn	5	<i>MAST5003</i>
MA5505	Linear Partial Differential Equations	15	Autumn	5	<i>MAST5005</i>
MA5513	Real Analysis 2	15	Autumn	5	<i>MAST5013</i>

PLUS 75 credits from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA5501	Applied Statistical Modelling 1	15	Spring	5	<i>MAST5001</i>
MA5502	Curves and Surfaces	15	Spring	5	<i>MAST5002</i>
MA5504	Lagrangian and Hamiltonian Dynamics	15	Spring	5	<i>MAST5004</i>
MA5507	Mathematical Statistics	15	Autumn	5	<i>MAST5007</i>
MA5509	Numerical Methods	15	Spring	5	<i>MAST5009</i>
MA5512	Ordinary Differential Equations	15	Spring	5	<i>MAST5012</i>
MA5514	Rings and Fields	15	Spring	5	<i>MAST5014</i>
MA5566	Number Theory	15	Autumn	5	<i>MAST5660</i>

MATHEMATICS WITH A YEAR IN INDUSTRY**MATHS-S:BSC**

Single Honours

STAGE S - 120 credits**You must take the following compulsory modules (120 credits):**

Compulsory module:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA5801*	Industrial Placement Experience	90	Autumn & Spring	5	<i>MAST5801</i>
MA5802*	Industrial Placement (Report and Presentation)	30	Autumn & Spring	5	<i>MAST5802</i>

*This module cannot be compensated, trailed or condoned.

MATHEMATICS WITH A YEAR IN INDUSTRY**MATHS-S:BSC**

Single Honours

STAGE 3 - 120 credits

You may select up to 60 credits from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA636	Stochastic Processes	15	Autumn	6	MAST6360
MA639	Time Series Modelling and Simulation	15	Spring	6	MAST6390
MA6512	Applied Statistical Modelling 2	15	Spring	6	MAST6012
MA6528	Principles of Data Collection	15	Autumn	6	MAST6028
MA6529	Statistical Learning	15	Spring	6	MAST6029
MA771	Computational Statistics	15	Spring	6	MAST7710

The remaining credits must be chosen from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA549	Discrete Mathematics	15	Spring	6	MAST5490
MA567	Topology Not running 20/21	15	Autumn	6	MAST5670
MA568	Orthogonal Polynomials and Special Functions	15	Spring	6	MAST5680
MA574	Polynomials in Several Variables	15	Autumn	6	MAST5740
MA576	Groups and Representations	15	Spring	6	MAST6003
MA587	Numerical Solution of Differential Equations	15	Autumn	6	MAST5870
MA603	Introduction to Lie Groups and Lie Algebras	15	Spring	6	MAST6030
MA607	Quantum Mechanics	15	Autumn	6	MAST6004
MA6503†	Communicating Mathematics	15	Autumn	6	MAST6703
MA6504†	Discovering and Communicating Mathematics	30	Autumn & Spring	6	MAST6704
MA6517	Functions of a Complex Variable	15	Autumn	6	MAST6017
MA6518	Games and Strategy	15	Spring	6	MAST6018
MA6522	Integrable Systems	15	Spring	6	MAST6022
MA6591	Mathematics in the World of Finance	15	Autumn	6	MAST6091
MA691	Linear and Nonlinear Waves	15	Autumn	6	MAST6002
MA692	Operators and Matrices	15	Spring	6	MAST6005

† Only one of these modules may be taken.

MATHEMATICS WITH A YEAR IN INDUSTRY (5 year programme)
Single Honours

MATHS-4-S:MMATH

STAGE 2 - 120 credits

You must take the following compulsory modules (45 credits):

Compulsory modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA5503	Groups and Symmetries	15	Autumn	5	MAST5003
MA5505	Linear Partial Differential Equations	15	Autumn	5	MAST5005
MA5513	Real Analysis 2	15	Autumn	5	MAST5013

PLUS 75 credits from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA5501	Applied Statistical Modelling 1	15	Spring	5	MAST5001
MA5502	Curves and Surfaces	15	Spring	5	MAST5002
MA5504	Lagrangian and Hamiltonian Dynamics	15	Spring	5	MAST5004
MA5507	Mathematical Statistics	15	Autumn	5	MAST5007
MA5509	Numerical Methods	15	Spring	5	MAST5009
MA5512	Ordinary Differential Equations	15	Spring	5	MAST5012
MA5514	Rings and Fields	15	Spring	5	MAST5014
MA5566	Number Theory	15	Autumn	5	MAST5660

MATHEMATICS WITH A YEAR IN INDUSTRY (5 year programme)
Single Honours

MATHS-4-S:MMATH

STAGE S - 120 credits

You must take the following compulsory modules (120 credits):

Compulsory module:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA5801*	Industrial Placement Experience	90	Autumn & Spring	5	MAST5801
MA5802*	Industrial Placement (Report and Presentation)	30	Autumn & Spring	5	MAST5802

*This module cannot be compensated, trailed or condoned.

STAGE 3 - 120 credits

You may select up to 60 credits from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA636	Stochastic Processes	15	Autumn	6	MAST6360
MA639	Time Series Modelling and Simulation	15	Spring	6	MAST6390
MA6512	Applied Statistical Modelling 2	15	Spring	6	MAST6012
MA6528	Principles of Data Collection	15	Autumn	6	MAST6028
MA6529	Statistical Learning	15	Spring	6	MAST6029
MA771	Computational Statistics	15	Spring	6	MAST7710

The remaining credits should be chosen from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA549	Discrete Mathematics	15	Spring	6	MAST5490
MA567	Topology Not running 20/21	15	Autumn	6	MAST5670
MA568	Orthogonal Polynomials and Special Functions	15	Spring	6	MAST5680
MA574	Polynomials in Several Variables	15	Autumn	6	MAST5740
MA576	Groups and Representations	15	Spring	6	MAST6003
MA587	Numerical Solution of Differential Equations	15	Autumn	6	MAST5870
MA603	Introduction to Lie Groups and Lie Algebras	15	Spring	6	MAST6030
MA607	Quantum Mechanics	15	Autumn	6	MAST6004
MA6503†	Communicating Mathematics	15	Autumn	6	MAST6703
MA6504†	Discovering and Communicating Mathematics	30	Autumn & Spring	6	MAST6704
MA6517	Functions of a Complex Variable	15	Autumn	6	MAST6017
MA6518	Games and Strategy	15	Spring	6	MAST6018
MA6522	Integrable Systems	15	Spring	6	MAST6022
MA6591	Mathematics in the World of Finance	15	Autumn	6	MAST6091
MA691	Linear and Nonlinear Waves	15	Autumn	6	MAST6002
MA692	Operators and Matrices	15	Spring	6	MAST6005

STAGE 4 - 120 credits

You must take the following compulsory module (45 credits):

Compulsory module:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA702	Dissertation for MMath Mathematics	45	Autumn & Spring	7	MAST7020

PLUS 75 credits from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA561	Introduction to Lie Groups and Algebras	15	Spring	7	MAST5610
MA7503‡	Communicating Mathematics	15	Autumn	7	MAST7703
MA7515	Discrete Mathematics	15	Spring	7	MAST7015
MA7522	Integrable Systems	15	Spring	7	MAST7022
MA7526	Nonlinear Systems and Applications	15	Spring	7	MAST7026
MA7527	Polynomials in Several Variables	15	Autumn	7	MAST7027
MA7532	Topology Not running 20/21	15	Autumn	7	MAST7032
MA776	Groups and Representations	15	Spring	7	MAST7003
MA791	Linear and Nonlinear Waves	15	Autumn	7	MAST7002
MA792	Operators and Matrices	15	Spring	7	MAST7005
MA967	Quantum Mechanics	15	Autumn	7	MAST7004

‡ This module **must** be taken in Stage 4 if MA6503 not taken in Stage 3

MATHEMATICS AND ACCOUNTING & FINANCE**MATHS-ACCF:BA**

Single Honours

STAGE 2 - 120 credits

You must take the following compulsory modules (60 credits):

Compulsory modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
AC523	Principles of Finance	30	Autumn & Spring	5	<i>ACCT5230</i>
EC566	Macroeconomics for Business	15	Spring	5	<i>ECON5660</i>
MA5505	Linear Partial Differential Equations	15	Autumn	5	<i>MAST5005</i>

PLUS 60 credits from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA501	Statistics for Insurance	15	Spring	5	<i>MAST5010</i>
MA5501	Applied Statistical Modelling 1	15	Spring	5	<i>MAST5001</i>
MA5507	Mathematical Statistics	15	Autumn	5	<i>MAST5007</i>
MA5509	Numerical Methods	15	Spring	5	<i>MAST5009</i>
MA5511	Optimisations with Financial Applications	15	Autumn	5	<i>MAST5011</i>
MA5512	Ordinary Differential Equations	15	Spring	5	<i>MAST5012</i>
MA566	Number Theory	15	Autumn	5	<i>MAST5660</i>

MATHEMATICS AND ACCOUNTING & FINANCE**MATHS-ACCF:BA**

Single Honours

STAGE 3 - 120 credits

You must take the following compulsory module (30 credits):

Compulsory module:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
AC524	Financial Accounting II	30	Autumn & Spring	5	<i>ACCT5240</i>

PLUS 30 credits from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
AC502	Business Finance	30	Autumn & Spring	6	<i>ACCT5020</i>
AC504	Auditing	30	Autumn & Spring	6	<i>ACCT5040</i>
CB513	Taxation	30	Autumn & Spring	6	<i>BUSN5130</i>
CB611	Futures and Options Markets	30	Autumn & Spring	6	<i>BUSN6110</i>

The remaining 60 credits should be taken from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA549	Discrete Mathematics	15	Spring	6	<i>MAST5490</i>
MA587	Numerical Solution of Differential Equations	15	Autumn	6	<i>MAST5870</i>
MA636	Stochastic Processes	15	Autumn	6	<i>MAST6360</i>
MA639	Time Series Modelling and Simulation	15	Spring	6	<i>MAST6390</i>
MA6503	Communicating Mathematics	15	Autumn	6	<i>MAST6703</i>
MA6518	Games and Strategy	15	Spring	6	<i>MAST6018</i>
MA6528	Principles of data collection	15	Autumn	6	<i>MAST6028</i>
MA6529	Statistical Learning	15	Spring	6	<i>MAST6029</i>
MA691	Linear and Nonlinear Waves	15	Autumn	6	<i>MAST6002</i>
MA771	Computational Statistics	15	Spring	6	<i>MAST7710</i>

MATHEMATICS AND ACCOUNTING & FINANCE WITH A YEAR IN INDUSTRY

Single Honours

MATHS-ACCF-S:BA**STAGE 2 - 120 credits****You must take the following compulsory modules (60 credits):**

Compulsory modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
AC523	Principles of Finance	30	Autumn & Spring	5	<i>ACCT5230</i>
EC566	Macroeconomics for Business	15	Spring	5	<i>ECON5660</i>
MA5505	Linear Partial Differential Equations	15	Autumn	5	<i>MAST5005</i>

PLUS 60 credits from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA501	Statistics for Insurance	15	Spring	5	<i>MAST5010</i>
MA5501	Applied Statistical Modelling 1	15	Spring	5	<i>MAST5001</i>
MA5507	Mathematical Statistics	15	Autumn	5	<i>MAST5007</i>
MA5509	Numerical Methods	15	Spring	5	<i>MAST5009</i>
MA5511	Optimisations with Financial Applications	15	Autumn	5	<i>MAST5011</i>
MA5512	Ordinary Differential Equations	15	Spring	5	<i>MAST5012</i>
MA566	Number Theory	15	Autumn	5	<i>MAST5660</i>

MATHEMATICS AND ACCOUNTING & FINANCE WITH A YEAR IN INDUSTRY

Single Honours

MATHS-ACCF-S:BA**STAGE S - 120 credits****You must take the following compulsory modules (120 credits):**

Compulsory module:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA5801 *	Industrial Placement Experience	90	Autumn & Spring	5	<i>MAST5801</i>
MA5802 *	Industrial Placement (Report and Presentation)	30	Autumn & Spring	5	<i>MAST5802</i>

*This module cannot be compensated, trailed or condoned.

MATHEMATICS AND ACCOUNTING & FINANCE WITH A YEAR IN INDUSTRY

Single Honours

MATHS-ACCF-S:BA**STAGE 3 - 120 credits**

You must take the following compulsory module (30 credits):

Compulsory module:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
AC524	Financial Accounting II	30	Autumn & Spring	5	<i>ACCT5240</i>

PLUS 30 credits from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
AC502	Business Finance	30	Autumn & Spring	6	<i>ACCT5020</i>
AC504	Auditing	30	Autumn & Spring	6	<i>ACCT5040</i>
CB513	Taxation	30	Autumn & Spring	6	<i>BUSN5130</i>
CB611	Futures and Options Markets	30	Autumn & Spring	6	<i>BUSN6110</i>

The remaining 60 credits should be taken from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA549	Discrete Mathematics	15	Spring	6	<i>MAST5490</i>
MA587	Numerical Solution of Differential Equations	15	Autumn	6	<i>MAST5870</i>
MA636	Stochastic Processes	15	Autumn	6	<i>MAST6360</i>
MA639	Time Series Modelling and Simulation	15	Spring	6	<i>MAST6390</i>
MA6503	Communicating Mathematics	15	Autumn	6	<i>MAST6703</i>
MA6518	Games and Strategy	15	Spring	6	<i>MAST6018</i>
MA6528	Principles of Data Collection	15	Autumn	6	<i>MAST6028</i>
MA6529	Statistical Learning	15	Spring	6	<i>MAST6029</i>
MA691	Linear and Nonlinear Waves	15	Autumn	6	<i>MAST6002</i>
MA771	Computational Statistics	15	Spring	6	<i>MAST7710</i>

MATHEMATICS AND STATISTICS**MATHS-STATS:BSC**

Single Honours

STAGE 2 - 120 credits**You must take the following compulsory modules (75 credits):**

Compulsory modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA5501	Applied Statistical Modelling 1	15	Spring	5	MAST5001
MA5503	Groups and Symmetries	15	Autumn	5	MAST5003
MA5505	Linear Partial Differential Equations	15	Autumn	5	MAST5005
MA5507	Mathematical Statistics	15	Autumn	5	MAST5007
MA5513	Real Analysis 2	15	Autumn	5	MAST5013

PLUS 45 credits from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA501	Statistics for Insurance	15	Spring	5	MAST5010
MA5502	Curves and Surfaces	15	Spring	5	MAST5002
MA5504	Lagrangian and Hamiltonian Dynamics	15	Spring	5	MAST5004
MA5512	Ordinary Differential Equations	15	Spring	5	MAST5012
MA5514	Rings and Fields	15	Spring	5	MAST5014

MATHEMATICS AND STATISTICS**MATHS-STATS:BSC**

Single Honours

STAGE 3 - 120 credits**You must take the following compulsory modules (30 credits):**

Compulsory modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA6512	Applied Statistical Modelling 2	15	Spring	6	MAST6012
MA6528	Principles of Data Collection	15	Autumn	6	MAST6028

PLUS at least 30 credits from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA636	Stochastic Processes	15	Autumn	6	MAST6360
MA639	Time Series Modelling and Simulation	15	Spring	6	MAST6390
MA6529	Statistical Learning	15	Spring	6	MAST6029
MA771	Computational Statistics	15	Spring	6	MAST7710

The remaining credits should be taken from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA549	Discrete Mathematics	15	Spring	6	MAST5490
MA567	Topology Not running 20/21	15	Autumn	6	MAST5670
MA568	Orthogonal Polynomials and Special Functions	15	Spring	6	MAST5680
MA574	Polynomials in Several Variables	15	Autumn	6	MAST5740
MA6503†	Communicating Mathematics	15	Autumn	6	MAST6703
MA6504†	Discovering and Communicating Mathematics	30	Autumn & Spring	6	MAST6704
MA6517	Functions of a Complex Variable	15	Autumn	6	MAST6017
MA6518	Games and Strategy	15	Spring	6	MAST6018
MA6591	Mathematics in the World of Finance	15	Autumn	6	MAST6091
MA691	Linear and Nonlinear Waves	15	Autumn	6	MAST6002

† Only one of these modules may be taken.

MATHEMATICS AND STATISTICS WITH A YEAR IN INDUSTRY

Single Honours

MATHS-STATS-S:BSC**STAGE 2 - 120 credits****You must take the following compulsory modules (75 credits):**

Compulsory modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA5501	Applied Statistical Modelling 1	15	Spring	5	<i>MAST5001</i>
MA5503	Groups and Symmetries	15	Autumn	5	<i>MAST5003</i>
MA5505	Linear Partial Differential Equations	15	Autumn	5	<i>MAST5005</i>
MA5507	Mathematical Statistics	15	Autumn	5	<i>MAST5007</i>
MA5513	Real Analysis 2	15	Autumn	5	<i>MAST5013</i>

PLUS 45 credits from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA501	Statistics for Insurance	15	Spring	5	<i>MAST5010</i>
MA5502	Curves and Surfaces	15	Spring	5	<i>MAST5002</i>
MA5504	Lagrangian and Hamiltonian Dynamics	15	Spring	5	<i>MAST5004</i>
MA5512	Ordinary Differential Equations	15	Spring	5	<i>MAST5012</i>
MA5514	Rings and Fields	15	Spring	5	<i>MAST5014</i>

MATHEMATICS AND STATISTICS WITH A YEAR IN INDUSTRY

Single Honours

MATHS-STATS-S:BSC**STAGE S - 120 credits****You must take the following compulsory modules (120 credits):**

Compulsory module:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA5801 *	Industrial Placement Experience	90	Autumn & Spring	5	<i>MAST5801</i>
MA5802 *	Industrial Placement (Report and Presentation)	30	Autumn & Spring	5	<i>MAST5802</i>

*This module cannot be compensated, trailed or condoned.

MATHEMATICS AND STATISTICS WITH A YEAR IN INDUSTRY

Single Honours

MATHS-STATS-S:BSC

STAGE 3 - 120 credits

You must take the following compulsory modules (30 credits):

Compulsory modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA6512	Applied Statistical Modelling 2	15	Spring	6	MAST6012
MA6528	Principles of Data Collection	15	Autumn	6	MAST6028

PLUS at least 30 credits from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA636	Stochastic Processes	15	Autumn	6	MAST6360
MA639	Time Series Modelling and Simulation	15	Spring	6	MAST6390
MA6529	Statistical Learning	15	Spring	6	MAST6029
MA771	Computational Statistics	15	Spring	6	MAST7710

The remaining credits should be taken from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA549	Discrete Mathematics	15	Spring	6	MAST5490
MA567	Topology Not running 20/21	15	Autumn	6	MAST5670
MA568	Orthogonal Polynomials and Special Functions	15	Spring	6	MAST5680
MA574	Polynomials in Several Variables	15	Autumn	6	MAST5740
MA6503†	Communicating Mathematics	15	Autumn	6	MAST6703
MA6504†	Discovering and Communicating Mathematics	30	Autumn & Spring	6	MAST6704
MA6517	Functions of a Complex Variable	15	Autumn	6	MAST6017
MA6518	Games and Strategy	15	Spring	6	MAST6018
MA6591	Mathematics in the World of Finance	15	Autumn	6	MAST6091
MA691	Linear and Nonlinear Waves	15	Autumn	6	MAST6002

† Only one of these modules may be taken.

MATHEMATICS WITH SECONDARY EDUCATION

Single Honours

MATHS-EDU:BSC**STAGE 2 - 120 credits****You must take the following compulsory modules (60 credits):**

Compulsory modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MAE100	School Practice	30	Autumn	5	<i>MAED1000</i>
MA5501	Applied Statistical Modelling 1	15	Spring	5	<i>MAST5001</i>
MA5503	Groups and Symmetries	15	Autumn	5	<i>MAST5003</i>

PLUS 60 credits from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MA5504	Lagrangian and Hamiltonian Dynamics	15	Spring	5	<i>MAST5004</i>
MA5505	Linear Partial Differential Equations	15	Autumn	5	<i>MAST5005</i>
MA5507	Mathematical Statistics	15	Autumn	5	<i>MAST5007</i>
MA5509	Numerical Methods	15	Spring	5	<i>MAST5009</i>
MA5512	Ordinary Differential Equations	15	Spring	5	<i>MAST5012</i>
MA5514	Rings and Fields	15	Spring	5	<i>MAST5014</i>
MA566	Number Theory	15	Autumn	5	<i>MAST5660</i>

MATHEMATICS WITH SECONDARY EDUCATION

Single Honours

MATHS-EDU:BSC**STAGE 3 - 120 credits****You must take the following compulsory modules (120 credits):**

Compulsory modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL	Office Use Only
MAE101	Curriculum Studies: Mathematics	40	Year Long	6	<i>MAED1010</i>
MAE102	Professional Placement 1	10	Autumn & Spring	6	<i>MAED1020</i>
MAE103	Professional Placement 2	20	Autumn	6	<i>MAED1030</i>
MAE104	Professional Studies	20	Year Long	6	<i>MAED1040</i>
MA601	Individual Project in Mathematics	30	Autumn & Spring	6	<i>MAST6010</i>