

DIVISION OF COMPUTING, ENGINEERING AND MATHEMATICAL SCIENCES

SCHOOL OF MATHEMATICS, STATISTICS AND ACTUARIAL SCIENCE

School Website: www.kent.ac.uk/smsas

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

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

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

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

The information contained herein is correct at the time of publication. Please note, however, that if a module recruits fewer than 8 students it is possible that it will not run. In this event, you will be contacted and asked to select an alternative module.

ACTUARIAL SCIENCE

UASC0001X1BS-F

ACTUARIAL SCIENCE WITH A FOUNDATION YEAR

UASC0001F1BS-F

ACTUARIAL SCIENCE WITH A YEAR IN INDUSTRY

UASC0001P1BS-F

Single Honours

STAGE 2 – 120 credits – up to 75 credits in one term

You must take the following compulsory modules (105 credits):

Compulsory modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
MACT5013	Actuarial Practice 2	15	Autumn	5
MACT5160	Actuarial Mathematics 1	15	Autumn	5
MACT5270	Corporate Finance for Actuaries	15	Spring	5
MACT5280	Financial Reports and Their Analysis	15	Autumn	5
MAST5001	Applied Statistical Modelling	15	Spring	5
MAST5007	Mathematical Statistics	15	Autumn	5
MAST5010	Statistics for Insurance	15	Spring	5

PLUS 15 credits from the following optional modules:

Optional Modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
MAST5011	Optimisation with Financial Applications	15	Autumn	5
MAST5956	Big Data and Machine Learning	15	Spring	5

Students on a Year in Industry will also take the following non-contributory compulsory module. This can also be taken by students who are not on the Year in Industry version as an optional, non-contributory module:

Compulsory module:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
WMATH010	SMSAS Industrial Practice Stage 2	0	Autumn & Spring	W

ACTUARIAL SCIENCE WITH A YEAR IN INDUSTRY

UASC0001P1BS-F

STAGE S – 120 credits

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

Compulsory modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
MAST5801*	Industrial Placement Experience	90	Year-long	5
MAST5802*	Industrial Placement (Report and Presentation)	30	Year-long	5

*Module cannot be compensated, trailed or condoned

ACTUARIAL SCIENCE (Sunway Direct Entry)

UASC0001S1BS-F

ACTUARIAL SCIENCE WITH A YEAR IN INDUSTRY (Sunway Direct Entry)

UASC0001P2BS-F

Single Honours

STAGE 2 – 120 credits – up to 75 credits in one term

You must take the following compulsory modules (105 credits):

Compulsory modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
MACT3090	Business Economics	15	Autumn & Spring	4
MACT5013	Actuarial Practice 2	15	Autumn	5
MACT5160	Actuarial Mathematics 1	15	Autumn	5
MACT6009	Financial Mathematics	15	Autumn	6
MAST5001	Applied Statistical Modelling	15	Spring	5
MAST5007	Mathematical Statistics	15	Autumn	5
MAST5010	Statistics for Insurance	15	Spring	5

PLUS 15 credits from the following optional modules:

Optional Modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
MAST5011	Optimisation with Financial Applications	15	Autumn	5
MAST5956	Big Data and Machine Learning	15	Spring	5

Students on a Year in Industry will also take the following non-contributory compulsory module. This can also be taken by students who are not on the Year in Industry version as an optional, non-contributory module:

Compulsory module:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
WMATH010	SMSAS Industrial Practice Stage 2	0	Autumn & Spring	W

**ACTUARIAL SCIENCE
 ACTUARIAL SCIENCE WITH A FOUNDATION YEAR
 ACTUARIAL SCIENCE WITH A YEAR IN INDUSTRY
 ACTUARIAL SCIENCE (Sunway Direct Entry)**

**UASC0001X1BS-F
 UASC0001F1BS-F
 UASC0001P1BS-F
 UASC0001S1BS-F**

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
MACT5250	Survival Analysis	15	Autumn	6
MACT5330	Actuarial Mathematics 2	15	Spring	6
MACT5350	Financial Economics and Assets and Liability Modelling	15	Autumn	6
MACT5370	Mathematics of Financial Derivatives	15	Spring	6
MACT5390	Financial Modelling	15	Spring	6
MACT6013	Actuarial Practice 3	15	Autumn	6
MAST6360	Stochastic Processes	15	Autumn	6
MAST6390	Time Series Modelling and Simulation	15	Spring	6

All students, whether they are on a Year in Industry course or not, can choose to take the following non-contributory optional module:

Optional module:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
WMATH011	SMSAS Industrial Practice Stage 3	0	Autumn & Spring	W

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
BUSN5032	Financial Econometrics	15	Spring	5
MACT5350	Financial Economics and Assets and Liability Modelling	15	Autumn	6
MACT5370	Mathematics of Financial Derivatives	15	Spring	6
MAST6060	Statistical Machine Learning	15	Autumn	6
MAST6360	Stochastic Processes	15	Autumn	6

PLUS 45 credits from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
MAST5490	Discrete Mathematics	15	Spring	6
MAST6011	Bayesian Statistics with Stan and Python Not running in 2024/25	15	Spring	6
MAST6012	Statistical Consultancy and Data Presentation	15	Spring	6
MAST6017	Functions of a Complex Variable	15	Spring	6
MAST6018	Games and Strategy	15	Autumn	6
MAST6703 †	Communicating Mathematics	15	Autumn	6
MAST6704 †	Discovering and Communicating Mathematics	30	Autumn & Spring	6

† Only one of these modules may be taken

All students, whether they are on a Year in Industry course or not, can choose to take the following non-contributory optional module:

Optional module:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
WMATH011	SMSAS Industrial Practice Stage 3	0	Autumn & Spring	W

**DATA SCIENCE
DATA SCIENCE WITH A YEAR IN INDUSTRY**

**UDSC0001X1BS-F
UDSC0001P1BS-F**

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
COMP3830	Problem Solving with Algorithms	15	Spring	4
COMP5280	Introduction to Artificial Intelligence	15	Autumn	5
COMP5320	Database Systems	15	Spring	5
COMP5390	Web Development	15	Autumn	5
MAST5001	Applied Statistical Modelling	15	Spring	5
MAST5015	Data Collection and Analytics	15	Autumn	5
MAST5016	Optimisation for Data Science	15	Autumn	5
MAST5956	Big Data and Machine Learning	15	Spring	5

Students on a Year in Industry will also take the following non-contributory compulsory module. This can also be taken by students who are not on the Year in Industry version as an optional, non-contributory module:

Compulsory module:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
WMATH010	SMSAS Industrial Practice Stage 2	0	Autumn & Spring	W

DATA SCIENCE WITH A YEAR IN INDUSTRY

UDSC0001P1BS-F

STAGE S – 120 credits

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

Compulsory modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
MAST5801*	Industrial Placement Experience	90	Year-long	5
MAST5802*	Industrial Placement (Report and Presentation)	30	Year-long	5

*Module cannot be compensated, trailed or condoned

**DATA SCIENCE
DATA SCIENCE WITH A YEAR IN INDUSTRY**

**UDSC0001X1BS-F
UDSC0001P1BS-F**

Single Honours

STAGE 3 – 120 credits

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

Compulsory modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
COMP6670	Capstone Project	30	Autumn & Spring	6
COMP6685	Deep Learning	15	Spring	6
MAST6060	Statistical Machine Learning	15	Autumn	6

PLUS 60 credits from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
COMP6362	Machine Learning Algorithms	15	Autumn	6
COMP6370	Natural Computation	15	Autumn	6
COMP8320	Data Mining and Knowledge Discovery	15	Spring	7
MAST6011	Bayesian Statistics with Stan and Python Not running in 2024/25	15	Spring	6
MAST6012	Statistical Consultancy and Data Presentation	15	Spring	6
MAST6703	Communicating Mathematics	15	Autumn	6

All students, whether they are on a Year in Industry course or not, can choose to take the following non-contributory optional module:

Optional module:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
WMATH011	SMSAS Industrial Practice Stage 3	0	Autumn & Spring	W

MATHEMATICS

UMTH0001X1BS-F

MATHEMATICS WITH A FOUNDATION YEAR

UMTH0001F1BS-F

MATHEMATICS WITH A YEAR IN INDUSTRY

UMTH0001P1BS-F

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
MAST5013	Real Analysis 2	15	Autumn	5
MAST5016	Optimisation for Data Science	15	Autumn	5
MAST5017	Vector Calculus	15	Spring	5
MAST5020	Ordinary and Partial Differential Equations	15	Autumn	5
MAST5660	Number Theory	15	Spring	5

PLUS 45 credits from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
MAST5001	Applied Statistical Modelling	15	Spring	5
MAST5007	Mathematical Statistics	15	Autumn	5
MAST5009	Numerical Methods	15	Spring	5
MAST5010	Statistics for Insurance	15	Spring	5
MAST5956	Big Data and Machine Learning	15	Spring	5
MAST6018	Games and Strategy	15	Autumn	6

Students on a Year in Industry will also take the following non-contributory compulsory module. This can also be taken by students who are not on the Year in Industry version as an optional, non-contributory module:

Compulsory module:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
WMATH010	SMSAS Industrial Practice Stage 2	0	Autumn & Spring	W

MATHEMATICS WITH A YEAR IN INDUSTRY

UMTH0001P1BS-F

STAGE S – 120 credits

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

Compulsory modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
MAST5801*	Industrial Placement Experience	90	Year-long	5
MAST5802*	Industrial Placement (Report and Presentation)	30	Year-long	5

*Module cannot be compensated, trailed or condoned

MATHEMATICS

UMTH0001X1BS-F

MATHEMATICS WITH A FOUNDATION YEAR

UMTH0001F1BS-F

MATHEMATICS WITH A YEAR IN INDUSTRY (5 year programme)

UMTH0001P1MM-F

Single Honours

STAGE 3 – 120 credits

Across Stages 3 & 4 you may select up to 60 credits in total from the Statistics optional modules. Those available in Stage 3 are:

Statistics optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
COMP6685	Deep Learning	15	Spring	6
MAST6011	Bayesian Statistics with Stan and Python Not running in 2024/25	15	Spring	6
MAST6012	Statistical Consultancy and Data Presentation	15	Spring	6
MAST6015	Data Collection and Analytics	15	Autumn	6
MAST6060	Statistical Machine Learning	15	Autumn	6
MAST6360	Stochastic Processes	15	Autumn	6
MAST6390	Time Series Modelling and Simulation	15	Spring	6

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

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
MAST5490	Discrete Mathematics	15	Spring	6
MAST5670	Topology	15	Autumn	6
MAST6004	Quantum Mechanics	15	Spring	6
MAST6017	Functions of a Complex Variable	15	Spring	6
MAST6018	Games and Strategy	15	Autumn	6
MAST6044	Nonlinear Systems and Applications	15	Spring	6
MAST6091	Mathematics in the World of Finance	15	Autumn	6
MAST6703 †	Communicating Mathematics	15	Autumn	6
MAST6704* †	Discovering and Communicating Mathematics	30	Autumn & Spring	6

† Only one of these modules may be taken.

*Available to only the BSC courses (not to MMATH)

All students, whether they are on a Year in Industry course or not, can choose to take the following non-contributory optional module:

Optional module:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
WMATH011	SMSAS Industrial Practice Stage 3	0	Autumn & Spring	W

Single Honours

STAGE 4 – 120 credits

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

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

Across Stages 3 & 4 you may select up to 60 credits in total from the Statistics optional modules. Those available in Stage 4 are:

Statistics optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
MAST7011	Bayesian Statistics with Stan and Python Not running in 2024/25	15	Spring	7
MAST7012	Statistical Consultancy and Data Presentation	15	Spring	7
MAST8360	Stochastic Processes	15	Autumn	7
MAST9420	Data Science with R	15	Autumn	7

Please note: you cannot take the Level 7 version of a module that you took at Level 6.

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

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
MAST7004	Quantum Mathematics	15	Spring	7
MAST7015	Discrete Mathematics	15	Spring	7
MAST7032	Topology	15	Autumn	7
MAST7044	Nonlinear Systems and Applications	15	Spring	7
MAST7703 ‡	Communicating Mathematics	15	Autumn	7

‡ This module **must** be taken in Stage 4 if MAST6703 not taken in Stage 3

**MATHEMATICS AND ACCOUNTING & FINANCE
MATHEMATICS AND ACCOUNTING & FINANCE WITH A YEAR IN INDUSTRY**

**UMTHACF2X1BS-F
UMTHACF2P1BS-F**

Single Honours

STAGE 2 – 120 credits – 60 in each term

You must take the following compulsory modules (90 credits):

Compulsory modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
ACCT3050	Principles of Management Accounting	15	Spring	4
ACCT5260	International Financial Reporting	15	Autumn	5
BUSN3014	Financial Markets and Institutions	15	Spring	4
MAST5007	Mathematical Statistics	15	Autumn	5
MAST5011	Optimisation with financial applications	15	Autumn	5
MAST5020	Ordinary and Partial Differential Equations	15	Autumn	5

PLUS 30 credits from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
MAST5001	Applied Statistical Modelling	15	Spring	5
MAST5009	Numerical Methods	15	Spring	5
MAST5010	Statistics for Insurance	15	Spring	5
MAST5017	Vector Calculus	15	Spring	5
MAST5660	Number Theory	15	Spring	5
MAST5956	Big Data and Machine Learning	15	Spring	5

Students on a Year in Industry will also take the following non-contributory compulsory module. This can also be taken by students who are not on the Year in Industry version as an optional, non-contributory module:

Compulsory module:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
WMATH010	SMSAS Industrial Practice Stage 2	0	Autumn & Spring	W

MATHEMATICS AND ACCOUNTING & FINANCE WITH A YEAR IN INDUSTRY

UMTHACF2P1BS-F

STAGE S – 120 credits

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

Compulsory modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
MAST5801*	Industrial Placement Experience	90	Year-long	5
MAST5802*	Industrial Placement (Report and Presentation)	30	Year-long	5

*Module cannot be compensated, trailed or condoned

MATHEMATICS AND ACCOUNTING & FINANCE**UMTHACF2X1BS-F****MATHEMATICS AND ACCOUNTING & FINANCE WITH A YEAR IN INDUSTRY****UMTHACF2P1BS-F**

Single Honours

STAGE 3 – 120 credits – 60 in each term

You must take 60 credits from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
ACCT5020	Corporate Finance and Investment	30	Autumn & Spring	6
ACCT5040	Auditing	30	Autumn & Spring	6
ACCT5220	Advanced Financial Accounting	30	Autumn & Spring	6
BUSN5015	Risk Management	15	Spring	6
BUSN6001	Fixed Income Markets and Instruments	15	Autumn	6
BUSN6002	Finance with Excel	15	Spring	6

PLUS 60 credits should be taken from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
MAST5490	Discrete Mathematics	15	Spring	6
MAST5670	Topology	15	Autumn	6
MAST6004	Quantum Mechanics	15	Spring	6
MAST6011	Bayesian Statistics with Stan and Python Not running in 2024/25	15	Spring	6
MAST6015	Data Collection and Analytics	15	Autumn	6
MAST6018	Games and Strategy	15	Autumn	6
MAST6044	Nonlinear Systems and Applications	15	Spring	6
MAST6060	Statistical Machine Learning	15	Autumn	6
MAST6360	Stochastic Processes	15	Autumn	6
MAST6390	Time Series Modelling and Simulation	15	Spring	6
MAST6703	Communicating Mathematics	15	Autumn	6

All students, whether they are on a Year in Industry course or not, can choose to take the following non-contributory optional module:

Optional module:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
WMATH011	SMSAS Industrial Practice Stage 3	0	Autumn & Spring	W

MATHEMATICS AND STATISTICS**UMAS0001X1BS-F**

Single Honours

STAGE 2 – 120 credits – 60 in each term**You must take the following compulsory modules (75 credits):**

Compulsory modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
MAST5001	Applied Statistical Modelling	15	Spring	5
MAST5007	Mathematical Statistics	15	Autumn	5
MAST5013	Real Analysis 2	15	Autumn	5
MAST5016	Optimisation for Data Science	15	Autumn	5
MAST5020	Ordinary and Partial Differential Equations	15	Autumn	5

PLUS 45 credits from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
MAST5009	Numerical Methods	15	Spring	5
MAST5010	Statistics for Insurance	15	Spring	5
MAST5017	Vector Calculus	15	Spring	5
MAST5660	Number Theory	15	Spring	5
MAST5956	Big Data and Machine Learning	15	Spring	5

Students on a Year in Industry will also take the following non-contributory compulsory module. This can also be taken by students who are not on the Year in Industry version as an optional, non-contributory module:

Compulsory module:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
WMATH010	SMSAS Industrial Practice Stage 2	0	Autumn & Spring	W

MATHEMATICS AND STATISTICS WITH A YEAR IN INDUSTRY
MATHS-STATS-S:BSC
UMAS0001P1BS-F**STAGE S – 120 credits****You must take the following compulsory modules (120 credits):**

Compulsory modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
MAST5801*	Industrial Placement Experience	90	Year-long	5
MAST5802*	Industrial Placement (Report and Presentation)	30	Year-long	5

*Module cannot be compensated, trailed or condoned

MATHEMATICS AND STATISTICS

UMAS0001X1BS-F

MATHEMATICS AND STATISTICS WITH A YEAR IN INDUSTRY

UMAS0001P1BS-F

Single Honours

STAGE 3 – 120 credits – 60 in each term

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

Compulsory modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
MAST6012	Statistical Consultancy and Data Presentation	15	Spring	6
MAST6015	Data Collection and Analytics	15	Autumn	6

PLUS you must take a minimum of 30 credits and maximum of 60 credits from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
MAST6011	Bayesian Statistics with Stan and Python Not running in 2024/25	15	Spring	6
COMP6685	Deep Learning	15	Spring	6
MAST6060	Statistical Machine Learning	15	Autumn	6
MAST6360	Stochastic Processes	15	Autumn	6
MAST6390	Time Series Modelling and Simulation	15	Spring	6

Any remaining credits can be taken from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
MAST5490	Discrete Mathematics	15	Spring	6
MAST5670	Topology	15	Autumn	6
MAST6004	Quantum Mechanics	15	Spring	6
MAST6017	Functions of a Complex Variable	15	Spring	6
MAST6044	Nonlinear Systems and Applications	15	Spring	6
MAST6703 †	Communicating Mathematics	15	Autumn	6
MAST6704 †	Discovering and Communicating Mathematics	30	Autumn & Spring	6

† Only one of these modules may be taken

All students, whether they are on a Year in Industry course or not, can choose to take the following non-contributory optional module:

Optional module:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
WMATH011	SMSAS Industrial Practice Stage 3	0	Autumn & Spring	W

MATHEMATICS WITH SECONDARY EDUCATION**UMTS0001X1BS-F**

Single Honours

STAGE 2 – 120 credits – up to 70 credits in a term**You must take the following compulsory modules (60 credits):**

Compulsory modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
MAED1001	Mathematics Learner and Teacher	20	Autumn	5
MAED1002	Introduction to Professional Placement	10	Year-long	5
MAST5001	Applied Statistical Modelling	15	Spring	5
MAST5660	Number Theory	15	Spring	5

PLUS 60 credits from the following optional modules:

Optional modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
MAST5007	Mathematical Statistics	15	Autumn	5
MAST5009	Numerical Methods	15	Spring	5
MAST5013	Real Analysis 2	15	Autumn	5
MAST5016	Optimisation for Data Science	15	Autumn	5
MAST5017	Vector Calculus	15	Spring	5
MAST5020	Ordinary and Partial Differential Equations	15	Autumn	5
MAST5956	Big Data and Machine Learning	15	Spring	5
MAST6018	Games and Strategy	15	Autumn	6

MATHEMATICS WITH SECONDARY EDUCATION**UMTS0001X1BS-F**

Single Honours

STAGE 3 – 120 credits – 55 Autumn, 65 Spring**You must take the following compulsory modules (120 credits):**

Compulsory modules:	MODULE TITLE	CREDIT AMOUNT	TERM TAUGHT	CREDIT LEVEL
MAED1011	Subject Pedagogy 1 (Mathematics)	20	Autumn	6
MAED1012	Subject Pedagogy 2 (Mathematics)	20	Autumn	6
MAED1021	Professional Placement	20	Spring	6
MAED1031	Preparing for Qualified Teacher Status	10	Spring	6
MAED1041	Research and Enquiry in Education (Mathematics)	20	Spring	6
MAST6010	Individual Project in Mathematics	30	Autumn & Spring	6