Mathematical Sciences Major/Minor Course List for 2020

Bachelor of Arts
Bachelor of Arts (Advanced)
Bachelor of Arts (Advanced) with Bachelor of Laws
Bachelor of Arts (Advanced) with Bachelor of Laws (Honours)

The Major

24 units of courses including: 6 units at level I; 6 units at level II; and 12 units at level III including the designated capstone course. A minimum of 15 units in the major must be completed before taking the capstone.
The simplest way to plan your major is:

- 6 units at level I
- 6 units at level II
- 12 units at level III including the designated capstone course.

The Minor

18 units of courses including: a minimum of 3 units and a maximum of 6 units at level I; a minimum of 3 units at level II; and a minimum of 6 units at level III. No capstone is required for the minor. Your minor area must be different to your major.
The simplest way to plan your minor is:

- 6 units at level I
- 6 units at level II
- 6 units at level III.

Students must meet the prerequisites for each course.

Level I				
S1/S2	MATHS	1011	Mathematics IA	3
Summer/S1/S2	MATHS	1012	Mathematics IB	3
S1/S2	MATHS	1013	Mathematics IM*	3
*Course for students who do not meet the prerequisite for Mathematics IA - not counted towards the major.				
Level II				3
S2	APP MTH	2105	Optimisation and Operations Research II	3
S2	MATHS	2100	Real Analysis II	3
S1	MATHS	2101	Multivariable & Complex Calculus II	3
S1	MATHS	2102	Differential Equations II	3
S1	MATHS	2103	Probability & Statistics II	3
S2	MATHS	2104	Numerical Methods II	3
S1	PURE MTH	2106	Algebra II	3
S2	STATS	2107	Statistical Modelling and Inference II	3
Level III				
S1	APP MTH	3001	Applied Probability III	3
S1	APP MTH	3002	Fluid Mechanics III	3
S1	APP MTH	3014	Optimisation III	3
S2	APP MTH	3016	Random Processes III	3
S1	APP MTH	3021	Modelling with Ordinary Differential Equations III	3
S2	APP MTH	3023	Partial Differential Equations and Waves III	3
S2	MATHS	3012	Financial Modelling: Tools & Techniques III	3
S2	MATHS	3026	Cryptography III	3
S1	PURE MTH	3002	Topology and Analysis III	3
S1	PURE MTH	3007	Groups and Rings III	3
S2	PURE MTH	3009	Integration and Analysis III	3
S1	PURE MTH	3019	Complex Analysis III	3
S2	PURE MTH	3023	Fields and Modules III	3
S1	STATS	3001	Statistical Modelling III	3
S1	STATS	3006	Mathematical Statistics III	3
S2	STATS	3022	Data Science III	3
S2	STATS	3023	Computational Bayesian Statistics III	3
Capstone *(A minimum of 15 units in the major must be completed before taking the capstone)*				
S2	MATHS	3021	Capstone Project in Mathematical Sciences III	3

Courses that may be available to study in subsequent years are detailed over page

Courses that may be available to study in subsequent years:

Level III			
APP MTH	3020	Stochastic Decision Theory III	3
APP MTH	3022	Optimal Functions and Nanomechanics III	3
PURE MTH	3022	Geometry of Surfaces III	3
PURE MATH	3024	Finite Geometry III	3
STATS	3003	Sampling Theory and Practice III	3
STATS	3005	Time Series III	3
STATS	3008	Biostatistics III	3