Mathematical Sciences and Teaching Major/Minor List
For 2021

This list applies to the following programs:

- Bachelor of Teaching with Bachelor of Arts (students who commenced prior to 2019)
- Bachelor of Teaching (Middle) with Bachelor of Arts
- Bachelor of Teaching (Secondary) with Bachelor of Arts

MAJOR	MINOR
24 units of courses including: • Level 1: 6 units • Level 2: 6 units • Level 3: 12 units including 6 unit capstone course	18 units of courses including: • Level 1: 6 units • Level 2: 6 units • Level 3: 6 units (no capstone required)

Teaching Requirements
The School of Education offers Curriculum & Methodology courses for both 'Mathematics' (year 7-10 Mathematics in Australian Schools) and 'Senior Mathematics' (year 11 & 12 Mathematics in Australian Schools).
To be eligible for 'Mathematics Curriculum & Methodology' students must complete 12 units in Mathematical Sciences courses and to be eligible for 'Senior Mathematics Curriculum & Methodology' students must complete 18 units in Mathematics courses.
The courses students complete to meet requirements for Senior Mathematics or Mathematics Curriculum and Methodology may also be used towards a Mathematical Sciences Major or Minor in the Bachelor of Arts

Term	Course code		Course name	Units
Level 1				
All students must complete the following course:				
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 2 (A minimum of 3 units at level 1 must be taken before taking level 2 courses)				
Plus 6 units from the following:				
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 * *(incompatible: MATHS 2107)*	3
S1	PURE MTH	2106	Algebra II *	3
S2	STATS	2107	Statistical Modelling and Inference II *	3
Level 3 (A minimum of 3 units at level 2 must be taken before taking level 3 courses)				
Plus 6 units from the following:				
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

Please read ALL pages of this document. Courses that may be available to study in subsequent years are detailed over page.

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
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 (Major Only) *(A minimum of 15 units in the major must be completed before taking the capstone)*				
S2	MATHS	3021	Capstone Project in Mathematical Sciences III **(incompatible MATHS 3020*)	6

* Courses have pre-requisites. Please check Course Planner before enrolling!

Courses not offered 2021 that may be available to study in subsequent years:

Level 2			
APP MTH	2105	Optimisation and Operations Research II *	3
Level 3			
APP MTH	3020	Stochastic Decision Theory III	3
APP MTH	3022	Optimal Functions and Nanomechanics III	3
PURE MTH	3009	Integration and Analysis 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