

# Mathematical Sciences Major/Minor Course list for 2019

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

## 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. This includes the 6 unit 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.

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.

**Students must meet the prerequisites for each course.**

Level I				
S1 / S2	MATHS	1011	Mathematics IA	3
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	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
Level III				
S1	APP MTH	3002	Fluid Mechanics III	3
S1	APP MTH	3021	Modelling with Ordinary Differential Equations III	3
S2	APP MTH	3022	Optimal Functions and Nanomechanics III	3
S2	APP MTH	3023	Partial Differential Equations and Waves 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
S2	PURE MTH	3024	Finite Geometry 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