

Bachelor of Teaching (Middle)/Bachelor of Mathematical and Computer Sciences (With a Major in Mathematical Sciences) Study Plan 2021 commencement

If you did not commence your degree in 2021, please refer to the plan for the year in which you started.

PROGRAM STRUCTURE

UNITS AND LEVELS	<p>You must complete a total of 96 units of courses, with:</p> <ul style="list-style-type: none"> at least 12 units and <i>no more than</i> 24 units of Level 1 courses at least 72 units at Levels 2, 3 and 4
MATHS & COMP SCIENCE (TEACHING AREA 1)	<p>You must complete 12 units of Mathematical and Computer Sciences Core courses plus 24 units of Mathematical Sciences Major courses. You must choose one of the teaching pathways listed on page 2. These courses are a guide only. Contact the Faculty of Engineering, Computer and Mathematical Sciences for specific advice. MATHS 3025 Professional Practice III cannot be presented towards the major.</p>
TEACHING AREA 2	<p>You must complete a sequence of courses in one discipline to the value of 18 units from a second teaching area. <i>You must choose a second teaching area from the list below.</i></p>
EDUCATION	<p>You must complete 42 units of Teaching Core courses, including:</p> <ul style="list-style-type: none"> 18 units of Education Courses at level 1, 2 and 3 (6 units at each level) 24 units of Education Courses at level 4, including 12 units of Curriculum & Methodology courses. <p>Prior to commencing 4th year you must:</p> <ul style="list-style-type: none"> successfully complete both the literacy and numeracy components of the LANTITE; complete the requirements for the Bachelor of Mathematical and Computer Sciences program. <p>Both Part A and the matching Part B of the same Curriculum & Methodology course must be completed from your chosen two teaching subject areas – refer to list on Faculty website.</p>

PLEASE NOTE

- *Students who have not passed SACE Stage 2 Specialist Maths are required to enrol in MATHS 1013 Mathematics IM as a prerequisite to enrolling in MATHS 1011 Mathematics IA. This does not count towards the degree
- You can undertake a **second teaching area** in the following areas: Accounting, Biology, Business Studies, Chemistry, Chinese**, Digital Technologies, English, French**, Geography, Environment and Population, German**, History, Indonesian**, Italian**, Japanese**, Linguistics (English as an Additional Language), Modern Greek**, Physics, Spanish**.
**Must seek advice from Faculty of Arts prior to enrolling
- All Teaching Curriculum & Methodology course lists can be found on the Faculty of Arts website.
- A course is usually worth 3 units, with some worth 6, 9 or 12. Information about all courses can be found in Course Planner.
- Some courses have restrictions and/or prerequisites (i.e. other courses you must complete first) - check Course Planner to make sure you meet these, if applicable.
- If you think you might like to undertake an internship or go on exchange, plan early in your degree so you don't miss out.

LINKS AND FURTHER INFORMATION

- [Study Plans, Majors, Minors and Arts Electives lists](#) Electives from other Faculties can be found via Course Planner.
- [Course Planner](#) Information about any University course, including semester/term availability, class times, unit value, restrictions and prerequisites.
- [University Calendar](#) All academic program rules – this is the definitive set of rules for your program.
- [Study Overseas](#) A Study Overseas experience may be included in your program.
- [Internships](#) Enhance your career prospects with an internship with one of our industry, community or government partners.
- Contact the Faculty of Arts:** arts@adelaide.edu.au • +61 8 8313 5245 • www.arts.adelaide.edu.au

STUDENT CHARTER

Under the [University's Student Charter](#), it is the student's responsibility to enrol correctly in accordance with the University's program requirements, course prerequisites and University procedures, and ensure that your enrolment will enable you to graduate in your chosen program. If this study plan is unclear, please seek advice from the Faculty of Arts at the earliest opportunity.

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MATHEMATICAL SCIENCES TEACHING PATHWAYS

Pathway 1: Pure Maths, Statistics and Applied Maths 1 (Stochastics)

Level 2

All the following courses must be completed:

- MATHS 2101 Multivariable and Complex Calculus II
- STATS 2103 Probability and Statistics II
- MATHS 2100 Real Analysis II
- STATS 2107 Statistical Modelling and Inference II

Level 3

Choose courses to the value of 12 units from the following:

- PURE MTH 3019 Complex Analysis III
- PURE MTH 3002 Topology and Analysis III
- APP MTH 3001 Applied Probability III
- STATS 3006 Mathematical Statistics III
- STATS 3001 Statistical Modelling III
- PURE MTH 3009 Integration and Analysis III
- PURE MTH 3022 Geometry of Surfaces III
- APP MTH 3016 Random Processes III
- STATS 3005 Time Series III
- MATHS 3012 Financial Modelling: Tools and Techniques

Pathway 3: Statistics and Applied Maths 1 (Stochastics)

Level 2

All the following courses must be completed

- MATHS 2103 Probability & Statistics 2
- STATS 2107 Statistical Modelling and Inference II

Choose courses to the value of 6 units from the following:

- PURE MTH 2106 Algebra II[^]
- MATHS 2102 Differential Equations II
- MATHS 2101 Multivariable and Complex Calculus II
- APP MTH 2105 Optimisation and Operational Research II[^]

Level 3

Choose courses to the value of 12 units from the following:

- APP MTH 3001 Applied Probability III
- APP MTH 3014 Optimisation III
- STATS 3006 Mathematical Statistics III
- STATS 3001 Statistical Modelling III
- APP MTH 3016 Random Processes III
- APP MTH 3020 Stochastic Decision Theory III
- STATS 3005 Time Series III
- MATHS 3012 Financial Modelling: Tools and Techniques

Pathway 2: Pure Maths

Level 2

All the following courses must be completed:

- MATHS 2101 Multivariable and Complex Calculus II
- MATHS 2100 Real Analysis II

Choose courses to the value of 6 units from the following:

- PURE MTH 2106 Algebra II[^]
- MATHS 2102 Differential Equations II
- MATHS 2104 Numerical Methods II
- APP MTH 2105 Optimisation and Operational Research II[^]

Level 3

Choose courses to the value of 12 units from the following:

- PURE MTH 3019 Complex Analysis III
- PURE MTH 3007 Group and Rings III
- PURE MTH 3002 Topology and Analysis III
- PURE MTH 3023 Field and Modules III
- PURE MTH 3009 Integration and Analysis III
- PURE MTH 3022 Geometry of Surfaces III
- MATHS 3012 Financial Modelling: Tools and Techniques

Pathway 4: Applied Maths 2 (Mechanics)

Level 2

All the following courses must be completed:

- MATHS 2101 Multivariable and Complex Calculus II
- MATHS 2102 Differential Equations II
- MATHS 2104 Numerical Methods II

Choose courses to the value of 3 units from the following:

- APP MTH 2105 Optimisation and Operational Research II[^]
- MATHS 2100 Real Analysis II

Level 3

Choose courses to the value of 12 units from the following:

- APP MTH 3002 Fluid Mechanics III
- APP MTH 3021 Modelling with Ordinary Differential Equations III
- APP MTH 3022 Optimal Functions and Nanomechanics III
- APP MTH 3023 Partial Differential Equations and Waves III
- MATHS 3012 Financial Modelling: Tools and Techniques

[^]This course has assumed knowledge.

- This study plan functions as both a list of *courses you must complete* and as a record of *what you have completed*.
- Courses are not necessarily listed in a specific order – check Course Planner for availability in each semester/term.
- If you did not commence your degree in 2021, please refer to the plan for the year in which you started.

Student ID & Name:

	Course	Level	Units	Status
Year 1				
M&CS	ENG 1002 Programming (Matlab and C)	1	3	
M&CS	STATS 1005 Statistical Analysis and Modelling I	1	3	
M&CS	MATHS 1011 Mathematics IA*	1	3	
M&CS	MATHS 1012 Mathematics IB	1	3	
TA2	Teaching Area 2 Level 1 course	1	3	
TA2	Teaching Area 2 Level 1 course	1	3	
Educ	EDUC 1001 Schools and Society	1	3	
Educ	EDUC 1100 Introduction to Teaching and Learning (Including a 10-day placement)	1	3	
Year 2				
M&CS	Level 2 Mathematical Sciences course	2	3	
M&CS	Level 2 Mathematical Sciences course	2	3	
M&CS	Level 2 Mathematical Sciences course	2	3	
M&CS	Level 2 Mathematical Sciences course	2	3	
TA2	Teaching Area 2 Level 2 course	2	3	
TA2	Teaching Area 2 Level 2 course	2	3	
Educ	EDUC 2001 Issues in Contemporary Education	2	3	
Educ	EDUC 2002 Research as Teaching Practice (Including a 10-day placement)	2	3	
Year 3				
M&CS	Level 3 Mathematical Sciences course	3	3	
M&CS	Level 3 Mathematical Sciences course	3	3	
M&CS	Level 3 Mathematical Sciences course	3	3	
M&CS	Level 3 Mathematical Sciences course	3	3	
TA2	Level 3 course	3	3	
TA2	Level 3 course	3	3	
Educ	EDUC 3005 Middle Years Pedagogy (Including a 10-day placement)	3	3	
Educ	EDUC 3003 Teaching the Diverse Classroom	3	3	
Year 4 – You must have completed both components of the LANTITE and all discipline studies courses before commencing Year 4. Note that these courses are taught in terms instead of semesters – check course planner for course dates				
Educ	Teaching Area 1 Curriculum and Methodology A	3	3	
Educ	Teaching Area 2 Curriculum and Methodology A	3	3	
Educ	Teaching Area 1 Curriculum and Methodology B	3	3	
Educ	Teaching Area 2 Curriculum and Methodology B	3	3	
Educ	EDUC 4210 Teaching Literacy and Numeracy in the Middle Years	3	3	
Educ	EDUC 4211 Middle Years Professional Experience A (25-day placement)	3	3	
Educ	EDUC 4207 Professional Preparation (UG) (intensive)	3	3	
Educ	EDUC 4212 Middle Years Professional Experience B (25-day placement)	3	3	

EN = Enrolled, CM = Complete

Major: Mathematical Science

Teaching Area 2:

Prepared by:

Date:

Notes: