

# Bachelor of Teaching (Secondary)/Bachelor of Mathematical and Computer Sciences (with a Computer Sciences Major) Study Plan 2022 commencement

If you did not commence your degree in 2022, please refer to the plan for the year in which you started.

## PROGRAM STRUCTURE

<b>UNITS AND LEVELS</b>	<p>You must complete a total of 96 units of courses, with:</p> <ul style="list-style-type: none"> <li>at least 12 units and <i>no more than</i> 24 units of Level 1 courses</li> <li>at least 72 units at Levels 2, 3 and 4</li> </ul>
<b>MATHS &amp; COMP SCIENCE (TEACHING AREA 1)</b>	<p>You must complete 12 units of Mathematical and Computer Sciences Core courses plus 24 units of <b>Computer Sciences Major</b> courses. You must choose one of the teaching pathways listed on page 2. These courses are a guide only. Contact the Faculty if you require assistance.</p>
<b>TEACHING AREA 2</b>	<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>
<b>EDUCATION</b>	<p>You must complete 42 units of Teaching Core courses, including:</p> <ul style="list-style-type: none"> <li>18 units of Education Courses at level 1, 2 and 3 (6 units at each level)</li> <li>24 units of Education Courses at level 4, including 6 units of Curriculum &amp; Pedagogy courses.</li> </ul> <p>Prior to commencing 4th year you must:</p> <ul style="list-style-type: none"> <li>successfully complete both the literacy and numeracy components of the LANTITE;</li> <li>complete the requirements for the Bachelor of Mathematical and Computer Sciences program.</li> </ul>

## 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\*\*, English, French\*\*, Geography, German\*\*, History, Indonesian\*\*, Italian\*\*, Japanese\*\*, Linguistics, Mathematics+, Modern Greek\*\*, Physics, Spanish\*\*.
- \*\*Must seek advice from Faculty prior to enrolling
- +MATHS 3025 Professional Practice III cannot be presented towards the second teaching area.
- All Teaching Curriculum & Pedagogy course lists can be found on the Faculty 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, Business, Law and Economics:** [askable@adelaide.edu.au](mailto:askable@adelaide.edu.au) • +61 8 8313 4755 • [www.able.adelaide.edu.au](http://www.able.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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Pathways have been designed to include courses that are most applicable for teachers. If a variation to this pathway is preferred, please email [arts@adelaide.edu.au](mailto:arts@adelaide.edu.au) with the subject line "teaching pathway variation" and specify the alternative course/s you wish to study. Your request will then be reviewed.

## COMPUTER SCIENCES TEACHING PATHWAYS – TOWARDS A COMPUTER SCIENCE MAJOR

### Pathway 1: Computer Science

#### Level 2

All the following courses must be completed:

- COMP SCI 2000 Computer Systems
- COMP SCI 2103 Algorithm Design & Data Structures
- COMP SCI 2201 Algorithm & Data Structure Analysis

#### Level 3

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

- COMP SCI 3006 Software Engineering & Project
- COMP SCI 3310 Software Engineering & Project (Artificial Intelligence)
- COMP SCI 3311 Software Engineering & Project (Data Science)
- COMP SCI 3312 Software Engineering & Project (Cybersecurity)
- COMP SCI 3313 Software Engineering & Project (Distributed Systems & Networking)

PLUS Level III Computer Science Course to the value of 9 units

PLUS Level II or III Computer Science Course to the value of 3 units

### Pathway 3: Artificial Intelligence

#### Level 2

All the following courses must be completed:

- COMP SCI 2000 Computer Systems
- COMP SCI 2103 Algorithm Design & Data Structures
- COMP SCI 2201 Algorithm & Data Structure Analysis

#### Level 3

All the following courses must be completed:

- COMP SCI 3007 Artificial Intelligence
- COMP SCI 3310 Software Engineering & Project (Artificial Intelligence)

Courses to the value of 6 units from the following:

- COMP SCI 3314 Introduction to Statistical Machine Learning
- COMP SCI 3315 Computer Vision
- COMP SCI 3316 Evolutionary Computation

PLUS Level II or III Computer Science Course to the value of 3 units

### Pathway 2: Cybersecurity

#### Level 2

All the following courses must be completed:

- COMP SCI 2000 Computer Systems
- COMP SCI 2103 Algorithm Design & Data Structures
- COMP SCI 2201 Algorithm & Data Structure Analysis

#### Level 3

All the following courses must be completed:

- COMP SCI 3307 Secure Programming
- COMP SCI 3308 Cybersecurity Fundamentals
- COMP SCI 3312 Software Engineering & Project (Cybersecurity)

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

- COMP SCI 3001 Computer Networks & Applications
- COMP SCI 3307 Secure Programming
- MATHS 3026 Cryptography III

PLUS Level II or III Computer Science Course to the value of 3 units

### Pathway 4: Distributed Systems and Networking

#### Level 2

All the following courses must be completed:

- COMP SCI 2000 Computer Systems
- COMP SCI 2103 Algorithm Design & Data Structures
- COMP SCI 2201 Algorithm & Data Structure Analysis

#### Level 3

All the following courses must be completed:

- COMP SCI 3001 Computer Networks & Applications
- COMP SCI 3012 Distributed Systems
- COMP SCI 3313 Software Engineering & Project (Distributed Systems & Networking)

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

- COMP SCI 3004 Operating Systems
- COMP SCI 3305 Parallel and Distributed Computing

PLUS Level II or III Computer Science Course to the value of 3 units

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- 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.
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Student ID & Name:

	Course	Level	Units	Status
<b>Year 1</b>				
M&CS	ENG 1002 Programming (Matlab and C)	1	3	
M&CS	MATHS 1011 Mathematics IA*	1	3	
M&CS	MATHS 1012 Mathematics IB*	1	3	
M&CS	COMP SCI 1102 Object Oriented Programming	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	
<b>Year 2</b>				
M&CS	Level 2 Computer Sciences course	2	3	
M&CS	Level 2 Computer Sciences course	2	3	
M&CS	Level 2 Computer Sciences course	2	3	
M&CS	Level 2 Computer 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	
<b>Year 3</b>				
M&CS	Level 3 Computer Sciences course	3	3	
M&CS	Level 3 Computer Sciences course	3	3	
M&CS	Level 3 Computer Sciences course	3	3	
M&CS	Level 3 Computer Sciences course	3	3	
TA2	Teaching Area 2 Level 3 course	3	3	
TA2	Teaching Area 2 Level 3 course	3	3	
Educ	EDUC 3003 Teaching the Diverse Classroom	3	3	
Educ	EDUC 3006 Secondary Years Pedagogy (incl 10-day placement)	3	3	
<b>Year 4 – You must have completed both components of the LANTITE and all discipline studies courses before commencing Year 4.</b>				
Educ	Teaching Area 1 Curriculum and Pedagogy (refer to list on Faculty website)	4	3	
Educ	Teaching Area 2 Curriculum and Pedagogy (refer to list on Faculty website)	4	3	
Educ	EDUC 4090 Professional Experience B and Assessment for Graduate Teaching	4	6	
Educ	EDUC 4213 Education Research Skills	4	3	
Educ	EDUC 4215 Secondary Years Professional Experience A (25 day placement)	4	3	
Educ	EDUC 4217 Curriculum, Assessment and Policy	4	3	
Educ	EDUC 4218 Foundations of Education	4	3	

\*This can count towards Maths as Teaching Area 2 in addition to Computer Sciences Major. **EN = Enrolled, CM = Complete**

Major: Computer Science

Teaching Area 2:

Prepared by:

Date:

Notes: