Bachelor of Science (Mathematics) & (Data Science)

Useful study planning/enrolment resources:

- Course and Subject Handbook
- Academic Calendars
- Class Registration
- Enrolment Resources

The information in the study planner is current at the time of creation may be subject to future change.

Attention International Student visa holders: To remain compliant with your enrolments requirements as a Student visa holder you are required to enrol in at least one On-Campus, Multi-Modal or WIL subject offering in each compulsory study period and you cannot enrol in more than one third (33%) of your total course load through online or distance learning. To complete your course within your CoE duration students must maintain sufficient subject enrolment.
If you are receiving US Federal Aid, there are further compliance considerations. Please contact financialaid@jcu.edu.au to confirm compliance of your subject selections.

Student Resources: If you require advice about your study plan, choosing electives, or which subjects to enrol in, please contact your major advisor or degree coordinator (CSE Course and Major Advisors). For information on available elective subject options please also refer to the Study Area guide (2026 JCU STUDY AREA GUIDE — College of Science & Engineering).

Your plan may include subjects labelled with ***Intensive on-campus requirements***. These subjects involve mandatory on-campus or fieldwork attendance with extended hours over a dedicated face-to-face period. Please check the face-to-face dates for the subject in the subject handbook and do not enrol in subjects with overlapping face-to-face dates. For more information, see the CSE Student Guide to Succeeding in Trimester 2 Intensives on the CSE Student Resources webpage.

	TRIMESTER 1	TRIMESTER 2	TRIMESTER 3
2026			MA1020:03 Preparatory Mathematics (or any Level 1, 2, 3 or 5 subject if already satisfied via previous study)
			Data Science Major MA1580:03 Foundations of Data Science

2027	TRIMESTER 1	TRIMESTER 2	TRIMESTER 3
	SC1101:03 Science, Technology and Truth	CH1020:03 Preparatory Chemistry (or any Level 1, 2, 3 or 5 subject if already satisfied via previous study)	SC1102:03 Modelling Natural Systems *PREREQ: MA1020 or MA0020 or Senior Mathematics or equivalent* **OR** SC1109:03 Modelling Natural Systems-Advanced^ *PREREQ: MA1000 or MA1009*
	Mathematics Major MA1000:03 Mathematical Foundations *PREREQ: MA1020 or MA0020 or BR0202 or High School Senior Mathematics or equivalent*	**Data Science Major** CP1404:03 Programming II *PREREQ: CP1801 or CP1401 or CP1200 or EG1002 or CP2200 or SC1201* *Online*	**Mathematics Major** MA1003:03 Mathematical Techniques *PREREQ: MA1000 or MA1011 or MA1009*
	Select 3 credit points of any Level 1, 2, 3 or 5 subjects* **Students studying Data Science as a second major must select CP1401:03 Problem Solving and Programming I*		**Mathematics Major** MA2210:03 Linear Algebra *PREREQ: MA1000*

^Note: SC1109 is compulsory in the Advanced BSc Program and should be taken instead of SC1102 if you are considering that pathway.

2028	TRIMESTER 1	TRIMESTER 2	TRIMESTER 3
	SC2202:03 Quantitative Methods in Science *PREREQ: SC1102 or SC1109* **OR** SC2209:03 Quantitative Methods in Science-Advanced *PREREQ: MA1003 and ((SC1109 plus 6 credit points of other Level 1 subjects) or admission in 116409)*	**Mathematics Major** MA2211:03 Discrete Mathematics *PREREQ: Maths B or MA1020 or MA0020*	**Mathematics Major** MA3210:03 Probability and Stochastic Processes *PREREQ: MA2000*
	Mathematics Major MA2000:03 Mathematics for Scientists and Engineers *PREREQ: MA1003*	**Data Science Major** Select 3 credit points of subjects from List 1	**Data Science Major** MA2405:03 Advanced Statistical Modelling *PREREQ: (MA1401 or BZ2001 or MA2401 or SC2202 or SC2209) and MA1000*
	Select 3 credit points of List 2 **(Skills Subjects)**		**Data Science Major** MA3405:03 Statistical Data Mining for Big Data *PREREQ: MA2405 or MA2000 or SC2202 or SC2209*

	TRIMESTER 1	TRIMESTER 2	TRIMESTER 3
2029	**Mathematics Major** MA3211:03 Mathematical Modelling of Dynamic Systems *PREREQ: MA2000*	SC3008:03 Professional Placement (TR1, TR2, TR3) *PREREQ: 12 credit points of second year subjects* **OR** SC3003:03 Science Research Internship* (TR1, TR2, TR3) *PREREQ: 15 credit points of Science Level 2 subjects plus a GPA of 5.5 or above* **Students must source a supervisor for their internship before enrolment*	
	Data Science Major MA3831:03 Natural Language Processing, Web Scraping and Large Data Processing *PREREQ: CP1404 and MA3405*	**Mathematics Major** MA3212:03 Optimisation and Operations Research *PREREQ: MA2000*	
	Data Science Major Select 3 credit points of subjects from **List 1**	**Data Science Major** MA3832:03 Neural Network and Deep Learning *PREREQ: (MA3405 or MA5405) and CP1404* **OR** MA3212:03 Optimisation and Operations Research *PREREQ: MA2000*	

COURSE HANDBOOK

Bachelor of Science
Mathematics Major
Data Science Major