Bachelor of Advanced Science

Chemistry & Data Science

2027 ENTRY

Useful study planning / enrolment resources

Course and Subject Handbook	Academic Calendars	Class Registration	Enrolment Resources

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 (JCU STUDY AREA GUIDE — College of Science & Engineering).

Intensive on-campus requirements: Subjects labelled with *Intensive on-campus requirements 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.

How to read this planner

PREREQ Prerequisite information **ONLINE** Online offering **PLACEMENT** Placement requirement **INTENSIVE** Intensive on-campus requirement

2027

TRIMESTER 1	TRIMESTER 2	TRIMESTER 3
MA1000:03 Mathematical Foundations **PREREQ:** MA1020 or MA0020 or BR0202 or High school subjects: Mathematical Methods or Specialist Mathematics (or equivalent such as Maths B or Maths C)	MA1003:03 Mathematical Techniques **PREREQ:** MA1000 or MA1011 or MA1009	SC1109:03 Modelling Natural Systems-Advanced **PREREQ:** MA1000 or MA1009
*CH1020:03 Preparatory Chemistry **OR** Any Level 1, 2, 3 or 5 subject if already satisfied via previous study ***Students studying Data Science must take CP1401**	**Chemistry Major** CH1001:03 Chemistry: The Central Science **PREREQ:** BR0301, CH1020, CH0020 or EG1010 or High School Senior Chemistry or admission to 71510 or 116910 or 70309 or 108209 or 70809 or 71809 or 115309 or 119209 or 117110.	**Chemistry Major** CH1002:03 Chemistry: Principles and Applications **PREREQ:** CH1001 or CH1011 and allow concurrent for CH1011 and CH1001
	Data Science Major CP1404:03 Programming II **PREREQ:** CP1801 or CP1401 or CP1200 or EG1002 or CP2200 or SC1201	**Data Science Major** MA1580:03 Foundations of Data Science

*If you have satisfied the Chemistry requirement via previous study, please contact enrolments@jcu.edu.au.

2028

TRIMESTER 1	TRIMESTER 2	TRIMESTER 3
*SC1101:03 Science, Technology and Truth	**Chemistry Major** CH2310:03 Organic Chemistry **PREREQ:** CH1001 and CH1002	**Chemistry Major** CH2103:03 Analytical Chemistry **PREREQ:** CH1001 or CH1011
SC2209:03 Quantitative Methods in Science-Advanced **PREREQ:** MA1003 and (SC1109 plus 6 credit points of other Level 1 subjects) or admission in 116409	**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
Chemistry Major CH2210:03 Inorganic Chemistry **PREREQ:** CH1001 and CH1002		**Data Science Major** MA3405:03 Statistical Data Mining for Big Data **PREREQ:** MA2405 or MA2000 or SC2202 or SC2209

2029

TRIMESTER 1	TRIMESTER 2	TRIMESTER 3
Chemistry Major CH3210:03 Applications of Inorganic Chemistry **PREREQ:** CH2210	SC3003:03 Science Research Internship **PREREQ:** Admission to BAdvSc plus 15 credit points of AQ, BC, BS, BZ, CH, EV, EA, MA, MB, PH or SC Science Level 2 subjects **OR** SC3008:03 Professional Placement **PREREQ:** Students must have successfully completed 12 second year credit points.	**Chemistry Major** CH3110:03 Special Topics in Analytical Chemistry **PREREQ:** CH2103
Data Science Major MA3831:03 Natural Language Processing, Web Scraping and Large Data Processing **PREREQ:** CP1404 and MA3405	**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	**Chemistry Major** CH3310:03 Special Topics in Organic Chemistry **PREREQ:** CH2310
Select 3 credit points of subjects from **List 1 (Advanced Skills Subjects)** ***MA2000 recommended to enable selection of alternate core MA3212**		**Data Science Major** Select 3 credit points of subjects from **List 1**

Course handbook

Bachelor of Advanced Science	Chemistry Major Data Science Major

Course Notes

Note: To satisfy prerequisites, students in this major must include CP1401 and CP1404 in their course; see the course structure for details. Students who have not met the CH1020 requirement through prior study cannot complete this double major combination.

*SC1101 – Domestic students may complete this subject in TR1 2027

Award Title	Bachelor of Advanced Science
Abbreviation	BAdvSc
Credit Points	72
AQF Level	Level 7 – Bachelor Degree
Location	Townsville Bebegu Yumba, Cairns Nguma-bada
Division	Academy
College	College of Science and Engineering
Expected Time to Complete	3 Years
Maximum Time to Complete	9 Years
Maximum Leave of Absence	3 Years
CRICOS Code	092515M