

RECOMMENDED STUDY PLAN

2022

DEGREE Bachelor of Science MAJOR Data Science (DSC)

NAME _____ MAJOR Choose a second major

To assist you with subject information, we recommend you consult with your [CSE Course/Major Advisor](#) and refer to [Subject Search](#). If you would prefer a part-time study plan, please adjust the below planner, reviewing subject prerequisites to ensure you are on track for course completion.

	Study Period 1 - SP1	Study Period 2 - SP2
Year 1	Degree Core: <u>SC1101</u> Science Technology and Truth	Degree Option Core <u>SC1102</u> Modelling Natural Systems PREREQ: MA1020 OR <u>SC1109</u> Modelling Natural Systems-Advanced^ PREREQ: MA1000 OR MA1009
	Students who have not completed High School Maths Methods (or equivalent) must take Degree Core: <u>MA1020</u> Preparatory Math* <i>*This subject is equivalent to QLD-Maths Methods from high school.</i> OR Elective - <u>CP1401</u> Problem Solving and Programming I – offered in Trimester 1– <i>Students in this major must complete this subject</i>	Students who have not completed High School Chemistry (or equivalent) must take Degree Core: <u>CH1020</u> Preparatory Chemistry# <i>#This subject is equivalent to chemistry from high school.</i> OR Elective - <u>CP1404</u> Programming II - offered in Trimester 3– <i>Students in this major must complete this subject</i> PREREQ: CP1401 OR EG1002
	Major Core: <u>MA1000</u> Mathematical Foundations PREREQ: MA1020 OR MATHEMATICS B OR MATHS C	Major Core: <u>MA1580</u> Foundations of Data Science PREREQ: MA1000 OR MA1020 OR MATHS B
	Major Core:	Major Core:

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

Year 2	Study Period 1 - SP1	Study Period 2 - SP2	
	Degree Option Core: <u>SC2202</u> Quantitative Methods in Science PREREQ: SC1102 OR MA1020 OR MA1000 OR MATHS B OR EQUIVALENT OR <u>SC2209</u> Quantitative Methods in Science-Advanced PREREQ: SC1109 AND MA1003 PLUS 6CP OF OTHER LEVEL 1 SUBJECTS	Degree Core Skill-List 2: <i>Subjects available across a number of study periods/trimesters, see list for full availabilities.</i>	
	Major Core List 1: <u>MA2830</u> Data Visualisation - Recommended	Major Core: <u>MA2405</u> Advanced Statistical Modelling PREREQ: MA1401 OR MA2401 OR SC2202/SC2209	
	Elective	Major Core: <u>MA3405</u> Statistical Data Mining for Big Data PREREQ: MA2405 OR MA2000 OR SC2202/SC2209	
	Major Core:		

Trimester 3 (Sept-Dec)
Major Core List 1: <u>CP2404</u> Database Modelling - Recommended

Year 3	Study Period 1 - SP1	Study Period 2 - SP2	
	Degree Option Core: <u>SC3008</u> Professional Placement PREREQ: COMPLETED 12CP SECOND YEAR SUBJECTS AND BE ENROLLED IN THEIR FINAL YEAR OF STUDY OR <u>SC5008</u> Professional Placement – <i>Prior approval required</i> OR <u>SC3901</u> Special Topic 1– <i>Prior approval required</i> <i>All available in multiple study periods</i>		
	Major Core: <u>MA3831</u> Natural Language Processing, Web Scraping and Large Data Processing PREREQ: CP1404 AND MA3405	Major Option Core: <u>MA3832</u> Neural Network & Deep Learning-Recommended PREREQ: MA3405 AND CP1404 OR <u>MA3212</u> Optimisation and Operations Research - <i>TSV only</i> PREREQ: MA2000 AND (MA2210 OR MA2201)	
	Major Core:	Major Core:	
	Major Core:	Major Core:	
Major Core:			

Further Degree Options:

Major Core List 1:	
Study Period 1 – SP1	Study Period 2 – SP2
<u>MA2211</u> Discrete Mathematics- <i>TSV only</i> PREREQ: MATHS B	<u>MA2210</u> Linear Algebra PREREQ: MA1003
<u>MA2830</u> Data Visualisation	

Trimester 3 (Sept-Dec)
<u>CP2404</u> Database Modelling

Skill-List 2:	
Study Period 1 – SP1	Study Period 2 – SP2
<u>MA2000</u> Mathematics for Scientists and Engineers PREREQ: MA1003	<u>CH2103</u> Analytical Chemistry – <i>TSV only</i> PREREQ: CH1001 OR CH1011
<u>MA2830</u> Data Visualisation	<u>EV2502</u> Introduction to Geographic Information Systems PREREQ: 12CP LEVEL 1 SUBJECTS
<u>SC3010</u> Sensors and Sensing for Scientists PREREQ: SC2202/SC2209	<u>MA2210</u> Linear Algebra PREREQ: MA1003
Trimester 3 (Sept-Dec)	
<u>CP2404</u> Database Modelling	

ADDITIONAL COURSE RULES

A maximum of 30 credit points may be taken at Level 1.

A minimum of 18 credit points of science subjects must be taken at Level 3 or higher.

ADDITIONAL COURSE REQUIREMENTS

Some majors require attendance in intensive or mixed mode attendance subjects on either the Townsville or Cairns campus. If students must attend intensive mode classes at a campus other than the one they are enrolled at, they are responsible for their own expenses.

Students studying this major as a second major must, prior to commencing this course, either i. have satisfied both MA1020 and CH1020 subject material in order to undertake this major in conjunction with the Physics major, or ii. have satisfied either MA1020 or CH1020 subject material for other major combinations. Students must select CP1401 and CP1404 as undergraduate elective subjects

COURSE PROGRESSION REQUISITES

Must successfully complete 18 credit points of Level 1 and 2 science subjects before attempting any Level 3 science subject

COURSE INCLUDES MANDATORY PROFESSIONAL PLACEMENT(S)

Yes

ADDITIONAL INFORMATION

[Bachelor of Science course handbook](#)

[Data Science major handbook](#)