

RECOMMENDED STUDY PLAN

Mid-Year Entry 2021

DEGREE Bachelor of Technology and Innovation MAJOR Data Science (DSC)-no MA1020-PrepMath

NAME _____

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.

Year 1	MID-YEAR ENTRY	Study Period 2 - SP2
		Degree Core: <u>CP1403</u> Design Thinking
		Degree Core: <u>MA1020</u> Preparatory Math* *This subject is equivalent to QLD-Maths Methods from high school. This core subject may be replaced by an elective if you pass the math competency test.
		Degree Opt Core: <u>CP1401</u> Problem Solving and Programming OR <u>CP1404</u> Programming II PREREQ: <u>CP1801</u> OR <u>CP1401</u> OR <u>CP1200</u> OR <u>EG1002</u> OR <u>CP2200</u>
		Major Core: <u>MA1580</u> Foundations of Data Science PREREQ: <u>MA1000</u> OR <u>MA1020</u> OR <u>MATHS B</u> - Allow for concurrent enrolment with MA1020

Year 2	Study Period 1 - SP1	Study Period 2 - SP2
	Degree Core: <u>SC1101</u> Science Technology and Truth	Degree Opt Core <u>SC1102</u> Modelling Natural Systems PREREQ: <u>MA1020</u> * OR <u>SC1109</u> Modelling Natural Systems-Advanced^ PREREQ: <u>MA1000</u> OR <u>MA1009</u>
	Degree Opt Core: <u>SC2202</u> Quantitative Methods in Science PREREQ: <u>SC1102</u> OR <u>MA1020</u> OR <u>MATH B</u> OR EQUIVALENT OR <u>SC2209</u> Quantitative Methods in Science-Advanced PREREQ: <u>SC1109</u> AND <u>MA1003</u> PLUS 6CP OF OTHER LEVEL 1 SUBJECTS	Degree Core: <u>EV2502</u> Introduction to Geographic Information Systems PREREQ: 12CP LEVEL 1 SUBJECTS
	Major Core: <u>CP1404</u> Programming II PREREQ: <u>CP1801</u> OR <u>CP1401</u> OR <u>CP1200</u> OR <u>EG1002</u> OR <u>CP2200</u> OR <u>MA1000</u> Mathematical Foundations PREREQ: <u>MA1020</u> OR <u>MATHEMATICS B</u> OR <u>MATHS C</u>	Major Core: <u>MA2405</u> Advanced Statistical Modelling PREREQ: <u>MA2401</u> OR <u>SC2202/SC2209</u>
	Elective: <u>MA1000</u> Mathematical Foundations PREREQ: <u>MA1020</u> OR <u>MATHEMATICS B</u> OR <u>MATHS C</u>	Major Core: <u>MA3405</u> Statistical Data Mining for Big Data PREREQ: <u>MA2405</u> OR <u>MA2000</u> OR <u>SC2202/SC2209</u>

^SC1109 has more math-based tutorials and requires MA1000. It may be taken as an alternative to SC1102 if you would prefer. It is a required subject in the Advanced Science program if you are considering that pathway.

Year 3	Study Period 1 - SP1	Study Period 2 - SP2
	Degree Core: <u>MA2830</u> Data Visualisation	Major Core: <u>MA3832</u> Neural Network and Deep Learning PREREQ: MA3405 AND CP1404 OR <u>MA3212</u> Optimisation and Operations Research - TSV only PREREQ: MA2000 AND (MA2210 OR MA2201)
	Major Core List 1: <u>CP2404</u> Database Modelling	Major Core List 1: <u>MA2211</u> Discrete Mathematics PREREQ: MA1020
	Major Core: <u>MA3831</u> Natural Language Processing, Web Scraping and Large Data Processing PREREQ: CP1404	Elective: <u>CP3404</u> Information Security – Recommended PREREQ: 6CP OF CP SUBJECTS AND 12CP OF SUBJECTS
	Elective:	

Trimester 3 (Oct-Jan)
Degree Core: <u>BX3173</u> Innovation Driven Entrepreneurship PREREQ: 18CP OF SUBJECTS

Year 4	Study Period 1 - SP1	Study Period 2 - SP2
	Degree Core: <u>SC3008</u> Professional Placement - available any SP	<p style="text-align: center;"><i>MID-YEAR COMPLETION</i></p>
	Degree Core: <u>EG3000:03</u> Introduction to Systems Engineering and Project Management PREREQ: EG1000 AND EG1002 AND EG1010 AND EG1011 AND EG1012 AND MA1000 AND MA1003 AND (PH1005 OR EG1001) OR 36CP	
	Elective:	
	Elective:	

Further Degree Options:

Major Core List 1:	
Study Period 1 – SP1	Study Period 2 – SP2
<u>CP2404</u> Database Modelling	<u>MA2211</u> Discrete Mathematics PREREQ: MA1020
<u>MA2830</u> Data Visualisation – this subject is core in this degree and as such is not available in this list	<u>MA2210</u> Linear Algebra PREREQ: MA1003

COURSE INCLUDES MANDATORY PROFESSIONAL PLACEMENT(S)

This course includes prescribed professional placements. Students may be required to undertake such placements away from the campus at which they are enrolled, at their own expense. Further information about placements can be found at Coursework Enrolment Policy.

ADDITIONAL INFORMATION

[Bachelor of Technology and Innovation course handbook](#)
[Data Science major handbook](#)