

RECOMMENDED STUDY PLAN

2022

DEGREE Bachelor of Technology and Innovation MAJOR Data Science (DSC)

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

Study Period 1 - SP1		Study Period 2 - SP2	
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	
Major Option Core: <u>MA1000</u> Mathematical Foundations PREREQ: MA1020 OR MATHEMATICS B OR MATHS C OR <u>CP1404</u> Programming II TR3 PREREQ: CP1801 OR CP1401 OR CP1200 OR EG1002 OR CP2200		Major Core: <u>MA1580</u> Foundations of Data Science PREREQ: MA1000 OR MA1020 OR MATHS B	
Study Period 3 (Jan-Feb)			Trimester 3 (Sept-Dec)
Degree Core: <u>MA1020</u> Preparatory Math* <i>*This subject is equivalent to QLD-Maths Methods from high school.</i> OR Elective:			Degree Option Core: <u>CP1404</u> Programming II PREREQ: CP1801 OR CP1401 OR CP1200 OR EG1002 OR CP2200 OR <u>CP1401</u> Problem Solving and Programming
Trimester 1 (Feb-May)			Degree Core: <u>CP1403</u> Design Thinking
Elective: Additional Degree Requirement - <u>CP1401</u> Problem Solving and Programming I – Required			

^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 2

Study Period 1 - SP1		Study Period 2 - SP2	
Degree Option Core: <u>SC2202</u> Quantitative Methods in Science PREREQ: SC1102 OR MA1020 OR MATH 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: <u>EV2502</u> Introduction to Geographic Information Systems PREREQ: 12CP LEVEL 1 SUBJECTS	
Degree Core: <u>MA2830</u> Data Visualisation		Major Core: <u>MA2405</u> Advanced Statistical Modelling PREREQ: MA2401 OR SC2202/SC2209 AND MA1000	
Elective:		Major Core: <u>MA3405</u> Statistical Data Mining for Big Data PREREQ: MA2405 OR MA2000 OR SC2202/SC2209	
Study Period 3 (Jan-Feb)		Trimester 3 (Sept-Dec)	
Elective <u>MA1003</u> Mathematical Techniques – Recommended PREREQ: MA1000 OR MA1011 OR MA1009		Major Core List 1: <u>CP2404</u> Database Modelling - Recommended	

Year 3

Study Period 1 - SP1		Study Period 2 - SP2	
Degree Core: <u>SC3008</u> Professional Placement - <i>available any SP</i>			
Degree Core: <u>EG3000</u> :03 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		Major Option Core: <u>MA3832</u> Neural Network and Deep Learning PREREQ: MA3405 AND CP1404 OR <u>MA3212</u> Optimisation and Operations Research — <i>TSV only</i> PREREQ: MA2000 AND (MA2210 OR MA2201)	
Major Core: <u>MA3831</u> Natural Language Processing, Web Scraping and Large Data Processing PREREQ: CP1404 AND MA3405		Major Core List 1: <u>MA2210</u> Linear Algebra PREREQ: MA1003	
Elective:		Elective:	
		Trimester 3 (Sept-Dec)	
		Degree Core: <u>BX3173</u> Innovation Driven Entrepreneurship PREREQ: 18CP OF SUBJECTS	

Further Degree Options:

Major Core List 1:	
Study Period 1 – SP1	Study Period 2 – SP2
MA2830 Data Visualisation – <i>this subject is core in this degree and as such is not available in this list</i>	MA2210 Linear Algebra PREREQ: MA1003
MA2211 Discrete Mathematics – TSV only PREREQ: MATHS B	

Trimester 3 (Sept-Dec)
CP2404 Database Modelling

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.

ADDITIONAL INFORMATION

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

[Data Science major handbook](#)