

RECOMMENDED STUDY PLAN

2021

DEGREE Bachelor of Science 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 Opt Core <u>SC1109</u> Modelling Natural Systems-Adv [^] -Recommended PREREQ: MA1000 OR MA1009 OR <u>SC1102</u> Modelling Natural Systems PREREQ: MA1020
	Degree Opt Core Breadth-List 1: <u>CP1401</u> Problem Solving and Programming I-Required	Degree Opt Core Breadth-List 1: <u>CP1404</u> Programming II - Required PREREQ: CP1801 OR CP1401 OR CP1200 OR EG1002 OR CP2200 OR SC1201
	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
	Degree Core: <u>CH1020</u> Preparatory Chemistry # # This subject is equivalent to chemistry from high school. This core subject may be replaced by an elective if you pass the chemistry competency test.	Degree Core: Is MA1020, if you need this, take it in SP3 (Jan-Feb). If you don't need this, take MA1003 instead. <u>MA1003</u> Mathematical Techniques - Recommended PREREQ: MA1000 OR MA1011 OR MA1009 <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.

[^] 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 Core: <u>SC2209</u> Quantitative Methods in Science-Advanced-Recommended for this Major! PREREQ: SC1109 AND MA1003 PLUS 6CP OF OTHER LEVEL 1 SUBJECTS OR <u>SC2202</u> Quantitative Methods in Science PREREQ: SC1102 OR MA1020 OR MATHS B OR EQUIVALENT	Degree Opt Core Skill-List 2:
	Major Core List 1: <u>CP2404</u> Database Modelling	Major Core: <u>MA2405</u> Advanced Statistical Modelling PREREQ: MA1401 OR MA2401 OR SC2202/SC2209
	Major Core List 1: <u>MA2830</u> Data Visualisation	Major Core: <u>MA3405</u> Statistical Data Mining for Big Data PREREQ: MA2405 OR MA2000 OR SC2202/SC2209
	Elective/Minor/2nd Major:	Elective/Minor/2nd Major:

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>SC3010</u> Sensors and Sensing for Scientists PREREQ: SC2202/SC2209	Major Core: <u>MA3832</u> Neural Network & Deep Learning- <i>Recommended</i> 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	Elective/Minor/2nd Major: <u>CP3404</u> Information Security – <i>Recommended</i> PREREQ: 6CP OF CP SUBJECTS AND 12CP OF SUBJECTS
	Elective/Minor/2nd Major:	Elective/Minor/2nd Major:
	Elective/Minor/2nd Major:	

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: MATHS B
<u>MA2830</u> Data Visualisation	<u>MA2210</u> Linear Algebra PREREQ: MA1003

Breadth-List 1:	
Study Period 1 – SP1	Study Period 2 – SP2
<u>CP1401</u> Problem Solving and Programming I OR <u>CP1404</u> Programming II PREREQ: CP1801 OR CP1401 OR CP1200 OR EG1002 OR CP2200 OR SC1201 <i>both subjects available in SP1 and SP2 **</i>	
<u>BM1000</u> Introductory Biochemistry and Microbiology – <i>TSV only</i> PREREQ: CH1020 OR SENIOR CHEMISTRY	<u>BS1001</u> Introduction to Biological Processes
<u>BS1007</u> Introduction to Biodiversity – <i>TSV only</i> OR <u>BZ1006</u> Diversity of Life – <i>CNS only</i>	<u>CH1002</u> Chemistry: Principles & Applications – <i>TSV only</i> PREREQ: CH1001 OR CH1011
<u>CH1001</u> Chemistry: A Central Science PREREQ: CH1020 OR EG1010 OR SENIOR CHEMISTRY	<u>EA1110</u> Evolution of the Earth
<u>EG1000</u> Engineering 1	<u>MA1003</u> Mathematical Techniques PREREQ: MA1000 OR MA1011 OR MA1009
<u>EV1005</u> Environmental Processes & Global Change	<u>PH1007</u> Advanced Stream Physics 2 – <i>TSV only</i> PREREQ: ((MATHS B OR EQUIVALENT OR MA1020) AND PH1005) OR (PHYSICS AND MATHS C)
<u>PH1005</u> Advanced Stream Physics 1 PREREQ: Maths B OR MA1020 OR MA1000 OR MA1008.	

****CP1404 has been added to the structure from 2019. We would prefer if you would take CP1404.**

Skill-List 2:	
Study Period 1 – SP1	Study Period 2 – SP2
	<u>EV2502</u> Introduction to Geographic Information Systems PREREQ: 12CP LEVEL 1 SUBJECTS
	<u>CH2103</u> Analytical Chemistry – TSV <i>only</i> PREREQ: CH1001 OR CH1011
	<u>MA2210</u> Linear Algebra PREREQ: MA1003