JAMES COOK UNIVERSITY AUSTRALIA

The information provided is designed to provide helpful information on your study plan. Changes to subject information after this time may affect your study plan. Please refer to the enrolment resources for up to date information.

RECOMMENDED STUDY PLAN

Mid-Year Entry 2021

DEGREE Bachelor of Technology and Innovation MAJOR Data Science (DSC)-with Prep math

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.

	Study Period 1 - SP1	Study Period 2 - SP2
Year 1	*MID-YEAR ENTRY*	**Degree Core:** CP1403 Design Thinking
		Degree Opt Core: CP1401 Problem Solving and Programming **OR** ~~CP1404 Programming II~~ ~~**PREREQ: CP1801 OR CP1401 OR CP1200 OR EG1002 OR CP220**~~
		Degree Core: ~~MA1020 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.*~~ *MA1000 Mathematical Foundations-Recommended* ***PREREQ: MA1020 OR MATHEMATICS B OR MATHS C***
		Major Core: MA1580 Foundations of Data Science **PREREQ: MA1000 OR MA1020 OR MATHS B**

^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.

	Study Period 1 - SP1	Study Period 2 - SP2
Year 2	**Degree Core:** SC1101 Science Technology and Truth	**Degree Opt Core** SC1102 Modelling Natural Systems **PREREQ: MA1020*** **OR** SC1109 Modelling Natural Systems-Advanced^ **PREREQ: MA1000 OR MA1009**
	Degree Core: SC2202 Quantitative Methods in Science **PREREQ: SC1102 OR MA1020 OR MATHS B OR EQUIVALENT** **OR** SC2209 Quantitative Methods in Science-Advanced-*Recommended for this Major*! **PREREQ: SC1109 AND MA1003 PLUS 6CP OF OTHER LEVEL 1**	**Major Core:** MA2405 Advanced Statistical Modelling **PREREQ: MA2401 OR SC2202/SC2209**
	Major Core: CP1404 Programming II **PREREQ: CP1801 OR CP1401 OR CP1200 OR EG1002 OR CP2200** **OR** ~~MA1000 Mathematical Foundations~~ ~~**PREREQ: MA1020 OR MATHEMATICS B OR MATHS C**~~	**Major Core:** MA3405 Statistical Data Mining for Big Data **PREREQ: MA2405 OR MA2000 OR SC2202/SC2209**
	Elective:	**Elective:** *MA1003 Mathematical Techniques – Recommended if you want to take MA2210 Linear Algebra* ***PREREQ: MA1000 OR MA1011 OR MA1009***

	Study Period 1 - SP1	Study Period 2 - SP2
Year 3	**Degree Core:** MA2830 Data Visualisation	**Degree Core:** EV2502 Introduction to Geographic Information Systems **PREREQ: 12CP LEVEL 1 SUBJECTS**
	Major Core List 1: *CP2404 Database Modelling*	**Major Core:** MA3832 Neural Network and Deep Learning **PREREQ: MA3405 AND CP1404** **OR** MA3212 Optimisation and Operations Research - *TSV only* **PREREQ: MA2000 AND (MA2210 OR MA2201)**
	Major Core: MA3831 Natural Language Processing, Web Scraping and Large Data Processing **PREREQ: CP1404**	**Major Core List 1:** *MA2210 Linear Algebra* ***PREREQ: MA1003***
		Elective: *CP3404 Information Security – Recommended* ***PREREQ: 6CP OF CP SUBJECTS AND 12CP OF SUBJECTS***

Trimester 3 (Oct-Jan)
Degree Core: BX3173 Innovation Driven Entrepreneurship **PREREQ: 18CP OF SUBJECTS**

	Study Period 1 - SP1	Study Period 2 - SP2
Year 4	**Degree Core:** SC3008 Professional Placement - *available any SP*	*MID-YEAR COMPLETION*
	Degree Core: EG3000:03 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**	
	Elective:	
	Elective:	

Further Degree Options:

Major Core List 1:	
Study Period 1 – SP1	**Study Period 2 – SP2**
CP2404 Database Modelling	MA2211 Discrete Mathematics **PREREQ: MA1020**
~~MA2830 Data Visualisation -~~*this subject is core in this degree and as such is not available in this list*	MA2210 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