Bachelor of Science MAJOR Data Science

This study plan should be used as a general guide for your course. We recommend you consult with your CSE Course/Major Advisor and particularly if your intended enrolment varies from this plan.

The information in the study plan is current at the time of creation and may be subject to future change. If you would prefer a part-time study plan, please adjust the below study planner; reviewing subject prerequisites to ensure you are on track for course completion.

Useful study planning/enrolment resources:

To search for information on subjects: Subject Search
To register for your classes: Class Registration
For important dates check: Academic Calendars

Further enrolment resources: Enrolment Resources

	STUDY PERIOD 1	STUDY PERIOD 2
Year 1		**Course** CH1020:03 Preparatory Chemistry **OR** Select 3 credit points of any level 1, 2, 3 or 5 subjects (if completed high school level Chemistry or equivalent)
		Course MA1020:03 Preparatory Mathematics **OR** Select 3 credit points of any level 1, 2, 3 or 5 subjects (if completed high school level Maths Methods or equivalent)
		Elective
		Elective

Year 2

TEACHING PERIOD 1	TEACHING PERIOD 2
Course SC1101:03 Science, Technology, and Truth	**Course** SC1102:03 Modelling Natural Systems *PREREQ: MA1020 or MA0020 or Senior Mathematics or equivalent* **OR** SC1109:03 Modelling Natural Systems - Advanced *PREREQ: MA1000 or MA1009*
Major MA1000:03 Mathematical Foundations *PREREQ: MA1020 or MA0020 or Maths B or Maths C*	**Major** MA1580:03 Foundations of Data Science *PREREQ: MA1000 or MA1020 or MA0020 or Maths B*
Elective	**Major** Select 3 credit points of Subjects from List 1

TRIMESTER 1	TRIMESTER 2	TRIMESTER 3
Course CP1401:03 Problem Solving and Programming I *REQUIRED: BREADTH Subject List 1*		**Course** CP1404:03 Programming II *PREREQ: CP1801 or CP1401 or CP1200 or EG1002 or CP2200 or SC1201* *REQUIRED: BREADTH Subject List 1*

Year 3

STUDY PERIOD 1	STUDY PERIOD 2
Course SC2202:03 Quantitative Methods in Science *PREREQ: SC1102 or MA1020 or MA1000 or Mathematics B or equivalent* **OR** SC2209:03 Quantitative Methods in Science - Advanced *PREREQ: SC1109 and MA1003 plus 6 credit points of any level 1 subjects*	**Course** Select 3 credit points of subjects from List 2 (Skill Subjects)
Major Select 3 credit points of Subjects from List 1	**Major** MA2405:03 Advanced Statistical Modelling *PREREQ: MA1401 or BZ2001 or MA2401 or SC2202 and MA1000*
Elective	***Major*** MA3405:03 Statistical Data Mining for Big Data *PREREQ: MA2405 or MA2000 or SC2202 or SC2209*
Elective	**Elective**

Year 4	STUDY PERIOD 1	STUDY PERIOD 2
	Course SC3008:03 Professional Placement Select Availability in Study Period 1, 2, 3, 7 or 11 *PREREQ: Students must have successfully completed 12 credit points of second year subjects. Enrolment is restricted to students with an approved placement*	
	Major MA3831:03 Natural Language Processing, Web Scraping, and Large Data Processing *PREREQ: CP1401 and MA3405*	**Major** MA3832:03 Neural Network and Deep Learning *PREREQ: MA3405 or MA5405 and CP1404* **OR** MA3212:03 Optimisation and Operations Research *PREREQ: MA2000 and (MA2210 or MA2201)*
	Elective	

BREADTH SUBJECTS - LIST 1	
STUDY PERIOD 1	**STUDY PERIOD 2**
BM1000:03 Introductory Biochemistry and Microbiology	BS1001:03 Introduction to Biological Processes
BS1007:03 Introduction to Biodiversity	CH1002:03 Chemistry: Principles and Applications *PREREQ: CH1001*
CH1001:03 Chemistry: A Central Science	EA1110:03 Evolution of the Earth
EG1000:03 Engineering 1	MA1003:03 Mathematical Techniques *PREREQ: MA1000*
EV1005:03 Environmental Processes and Global Change	~~MA1580:03 Foundations of Data Science~~
~~MA1000:03 Mathematical Foundation~~	PH1007:03 Advanced Stream Physics 2 *PREREQ: PH1005 OR (High School Physics and M*
PH1005:03 Advanced Stream Physics 1	

TRIMESTER 1	TRIMESTER 2	TRIMESTER 3
CP1401:03 Problem Solving and Programming I CP1401:03 Problem Solving and Programming I-**EXTERNAL OFFERING*	CP1401:03 Problem Solving and Programming I-**EXTERNAL OFFERING*	CP1404:03 Programming II CP1404:03 Programming II-**EXTERNAL OFFERING*
	CP1404:03 Programming II-**EXTERNAL OFFERING*	

SKILL SUBJECTS - LIST 2	
STUDY PERIOD 1	**STUDY PERIOD 2**
MA2000:03 Mathematics for Scientists and Engineers *PREREQ: MA1003*	CH2103:03 Analytical Chemistry *PREREQ: CH1001 OR CH1011*
MA2830 Data Visualisation	EV2502:03 Introduction to Geographic Information Systems *PREREQ: At least 12 credit points of level 1 subjects*
SC3010:03 Sensors and Sensing for Scientists *PREREQ: SC2202 OR (SC2209 OR SC2201 OR BZ2001)*	MA2210:03 Linear Algebra *PREREQ: MA1003*

TRIMESTER 3
CP2404:03 Database Modelling CP2404:03 Database Modelling- **EXTERNAL OFFERING*

COURSE NOTES

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 INFORMATION

Bachelor of Science Handbook
Data Science Major