Bachelor of Science

MAJOR Mathematics

SECOND MAJOR Physics

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 **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*
	Course **MA1020:**03 Preparatory Mathematics – **SP3** or **Elective*** (only if already satisfied via previous study)	Course **CH1020**:03 Preparatory Chemistry or **Elective** (if already satisfied via previous study)
	Major **MA1000**:03 Mathematical Foundations *PREREQ: MA1020 or MA0020 or Maths B or Maths C*	Major **MA1003**:03 Mathematical Techniques *PREREQ: MA1000 or MA1011 or MA1009*
	Second Major **PH1005**:03 Advanced Stream Physics 1 *PREREQ: Maths B or MA1020 or MA0020 or MA1000 or MA1008. Allow concurrent for MA1000 and MA1008.*	Second Major **PH1007**:03 Advanced Stream Physics 2 *PREREQ: (Maths B or equivalent or MA1020 or MA0020 and PH1005) or (Physics and Maths C)*

*Note: You are very strongly recommended to take MA2211 in this place and take an elective later on.
^Note: SC1109 is compulsory in the Adv BSc Program and should be taken instead of SC1102 if you are considering that pathway.

	STUDY PERIOD 1	STUDY PERIOD 2
Year 2	Major **MA2211**:03 Discrete Mathematics *PREREQ: Maths B or MA1020 or MA0020*	Course Select 3 credit points of subjects from **List 2 (Skill Subjects)**
	Major **MA2000**:03 Mathematics for Scientists and Engineers *PREREQ: MA1003*	Major **MA2210:03 Linear Algebra** *PREREQ: MA1003*
	Second Major **PH2019**:03 Introduction to Electromagnetism Optics and Early Quantum *PREERQ: (EG1012 or PH1005) and MA1003*	Second Major **PH2048**:03 Medical and Radiation Physics *PREREQ: PH1007 and MA1003*
	Second Major **PH2002**:03 Classical Mechanics and Quantum Physics 1 *PREREQ: MA1003 and PH1005 and (PH1006 or PH1007 or (EG1012 and EG1011))*	**Elective**

	STUDY PERIOD 1	STUDY PERIOD 2
Year 3	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.* *Enrolment is restricted to students with an approved placement*	
	Course **SC2202**:03 Quantitative Methods in Science *PREREQ: SC1102 or SC1109* OR **SC2209**:03 Quantitative Methods in Science-Advanced *PREREQ: MA1003 and (SC1109 plus 6 credit points of other Level 1 subjects)*	Major **MA3210**:03 Probability and Stochastic Processes *PREREQ: MA2000 and (MA2210 or MA2201)*
	Major **MA3211**:03 Mathematical Modelling and Differential Equations *PREREQ: MA2000 and (MA2210 or MA2201)*	Major **MA3212**:03 Optimisation and Operations Research *PREREQ: MA2000 and (MA2210 or MA2201)*
	Second Major **PH3021**:03 Physics of the Earth, Solar System, and Universe *PREREQ: MA2000 and PH2002 and PH2019*	**Second Major** **PH3002**:03 Quantum Physics 2 *PREREQ: MA2000 and PH2002*
	Second Major **PH3008**:03 Statistical Mechanics and Transport *PREREQ: PH2019 and PH2002 and MA2000*	

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*
MA2830:03 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: BZ2001 or SC2202 or SC2209 or SC2201*	~~MA2210:03 Linear Algebra~~ ~~*PREREQ: MA1003*~~

TRIMESTER 3
CP2404:03 Database Modelling

ADDITIONAL INFORMATION

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.

COURSE HANDBOOK

Bachelor of Science Handbook
Mathematics Major
Physics Major