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 2022

DEGREE Bachelor of Science MAJOR Physics (PCS)

NAME _____ MAJOR Choose a second major

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	**Degree Core:** SC1101 Science Technology and Truth	**Degree Option Core:** SC1102 Modelling Natural Systems **PREREQ: MA1020** **OR** SC1109 Modelling Natural Systems-Advanced^ **PREREQ: MA1000 OR MA1009**
	Students who have not completed High School Maths Methods (or equivalent) must take **Degree Core:** MA1020 Preparatory Math* - @**Study Period 3** **This subject is equivalent to QLD-Maths Methods from high school.* **OR** **Elective -** MA1000 Mathematical Foundations- *Students in this major must complete this subject in their 1st year to ensure no issues with progression* **PREREQ: MA1020 OR MATHEMATICS B OR MATHS C**	Students who have not completed High School Chemistry (or equivalent) must take **Degree Core:** CH1020 Preparatory Chemistry# *#This subject is equivalent to chemistry from high school.* **OR** **Elective -**MA1003 Mathematical Techniques - *Students in this major must complete this subject in their 1st year to ensure no issues with progression* **PREREQ: MA1000 OR MA1011 OR MA1009**
	Major Core: PH1005 Advanced Stream Physics 1 **PREREQ: Maths B OR MA1020 OR MA1000 OR MA1008.**	**Major Core:** PH1007 Advanced Stream Physics 2 **PREREQ: ((MATHS B OR EQUIVALENT OR MA1020) AND PH1005) OR (PHYSICS AND MATHS C)**
	Major Core:	**Major Core:**

@ If taking MA1020 – students need to take this subject in Study Period 3 (Jan-Feb)
^ Note- SC1109 is compulsory in the Advanced BSc Program and should be taken instead of SC1102 if you are considering that pathway.

	Study Period 1 - SP1	Study Period 2 - SP2
Year 2	**Degree Option Core:** SC2202 Quantitative Methods in Science **PREREQ: SC1102 OR MA1020 OR MA1000 OR MATHS B OR EQUIVALENT** **OR** SC2209 Quantitative Methods in Science-Advanced **PREREQ: SC1109 AND MA1003 PLUS 6CP OF OTHER LEVEL 1 SUBJECTS**	**Major Core:** PH2240 Atomic and Nuclear Physics **PREREQ:PH2002 AND MA1003**
	Degree Core: MA2000 Mathematics for Scientists and Engineers **PREREQ: MA1003** *Students in this major must choose this subject from the Skill-List 2*	**Major Core:**
	Major Core: PH2002 Classical Mechanisms and Quantum Physics 1 **PREREQ: MA1003 AND PH1005 AND (PH1006 OR PH1007 OR (EG1012 AND EG1011))**	**Major Core:**
	Major Core: PH2019 Introduction to Electromagnetism Optics and Early Quantum **PREREQ: (EG1012 OR PH1005) AND MA1003**	**Major Core:**

	Study Period 1 - SP1	Study Period 2 - SP2
Year 3	**Degree Option Core:** SC3008 Professional Placement **PREREQ: COMPLETED 12CP SECOND YEAR SUBJECTS AND BE ENROLLED IN THEIR FINAL YEAR OF STUDY** **OR** SC5008 Professional Placement – *Prior approval required* **OR** SC3901 Special Topic 1– *Prior approval required* *All available in multiple study periods*	
	Major Core: PH3008 Statistical Mechanics and Transport **PREREQ: PH2019 AND PH2002 AND MA2000**	**Major Core:** PH3002 Quantum Physics 2 **PREREQ: MA2000 AND PH2002**
	Major Core: PH3019 Electromagnetic Phenomena **PREREQ: MA2000 and PH2019**	**Major Core:**
	Major Core:	**Major Core:**
	Elective	

Further Degree Options:

Skill-List 2:	
Study Period 1 – SP1	**Study Period 2 – SP2**
MA2000 Mathematics for Scientists and Engineers **PREREQ: MA1003**	CH2103 Analytical Chemistry – *TSV only* **PREREQ: CH1001 OR CH1011**
MA2830 Data Visualisation	EV2502 Introduction to Geographic Information Systems **PREREQ: 12CP LEVEL 1 SUBJECTS**
SC3010 Sensors and Sensing for Scientists **PREREQ: SC2202/SC2209**	MA2210 Linear Algebra **PREREQ: MA1003**

Trimester 3 (Sept-Dec)
CP2404 Database Modelling

ADDITIONAL COURSE RULES

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 COURSE REQUIREMENTS

Some majors require attendance in intensive or mixed mode attendance subjects on either the Townsville or Cairns campus. If students must attend intensive mode classes at a campus other than the one they are enrolled at, they are responsible for their own expenses.

Students studying this major as a second major must either i. undertake this major in conjunction with the Mathematics major; or prior to commencing this course; ii. have satisfied both MA1020 and CH1020 subject material in order to undertake this major in conjunction with the Data Science major, or iii. have satisfied either MA1020 or CH1020 subject material for other major combinations. Students must select MA1000 and MA1003 as undergraduate elective subjects and MA2000 as the List 2 subject.

COURSE PROGRESSION REQUISITES

Must successfully complete 18 credit points of Level 1 and 2 science subjects before attempting any Level 3 science subject

COURSE INCLUDES MANDATORY PROFESSIONAL PLACEMENT(S)

Yes

ADDITIONAL INFORMATION

Bachelor of Science course handbook
Physics major handbook