

## RECOMMENDED STUDY PLAN

2022

DEGREE Bachelor of Science MAJOR Molecular and Cell Biology (MCB)

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	<b>Degree Core:</b> <u>SC1101</u> Science Technology and Truth	<b>Degree Option Core</b> <u>SC1102</u> Modelling Natural Systems <b>PREREQ:</b> MA1020 <b>OR</b> <u>SC1109</u> Modelling Natural Systems-Advanced^ <b>PREREQ:</b> MA1000 OR MA1009	
	Students who have not completed High School Maths Methods (or equivalent) must take <b>Degree Core:</b> <u>MA1020</u> Preparatory Math* <i>*This subject is equivalent to QLD-Maths Methods from high school.</i> <b>OR</b> <b>Elective</b> - if student has completed high school level Maths Methods or equivalent	<b>Major Core:</b> <u>BS1001</u> Introduction to Biological Processes	
	<b>Major Core:</b> <u>BM1000</u> Introductory Biochemistry and Microbiology <b>PREREQ:</b> CH1020 OR SENIOR CHEMISTRY	<b>Major Core:</b>	
	<b>Major Core:</b>		
<b>SP3 (Jan-Feb)</b>			
Students who have not completed High School Chemistry (or equivalent) must take <b>Degree Core:</b> <u>CH1020</u> Preparatory Chemistry# <i>#This subject is equivalent to chemistry from high school.</i> <b>OR</b> <b>Elective</b> - if student has completed high school level Chemistry or equivalent			

^ 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
	<b>Degree Option Core:</b> <u>SC2202</u> Quantitative Methods in Science PREREQ: SC1102 OR MA1020 OR MA1000 OR MATHS B OR EQUIVALENT <b>OR</b> <u>SC2209</u> Quantitative Methods in Science-Advanced PREREQ: SC1109 AND MA1003 PLUS 6CP OF OTHER LEVEL 1 SUBJECTS	<b>Degree Core Skill-List 2:</b> <i>Subjects available across a number of study periods/trimesters, see list for full availabilities.</i>
	<b>Major Core:</b> <u>BC2013</u> Principles of Biochemistry PREREQ: 18CP LEVEL 1 SUBJECTS WHICH INCLUDES BM1000 AND BS1001	<b>Major Core:</b> <u>BC2023</u> Molecular Genetics PREREQ: 18CP LEVEL 1 SUBJECTS INCLUDING BM1000
	<b>Major Core:</b>	<b>Major Core:</b> <u>BC2024</u> Cell Biology PREREQ: BM1000 AND 18CP LEVEL 1 SUBJECTS
	<b>Major Core:</b>	<b>Major Core:</b>

Year 3	Study Period 1 - SP1	Study Period 2 - SP2
	<b>Degree Option Core:</b> <u>SC3008</u> Professional Placement PREREQ: COMPLETED 12CP SECOND YEAR SUBJECTS AND BE ENROLLED IN THEIR FINAL YEAR OF STUDY <b>OR</b> <u>SC5008</u> Professional Placement – <i>Prior approval required</i> <b>OR</b> <u>SC3901</u> Special Topic 1– <i>Prior approval required</i> <i>All available in multiple study periods</i>	
	<b>Major Core:</b> <u>BC3101</u> Genes, Genomes, and Development PREREQ: BC2023	<b>Major Core:</b> <u>BC3201</u> Bioengineering PREREQ: BC2013 AND BC2023
	<b>Major Core:</b> <u>BC3102</u> Molecular Basis of Disease PREREQ: BC2013 AND BC2024	Elective <u>BC3203</u> Bioinformatics - <i>Recommended</i> PREREQ: SC2202/SC2209 OR MA2405 OR (BC3101 AND HS2402)
	<b>Major Core:</b>	<b>Major Core:</b>
	<b>Major Core:</b>	

**Further Degree Options:**

<b>Skill-List 2:</b>		
<b>Study Period 1 – SP1</b>	<b>Study Period 2 – SP2</b>	
<u>MA2000</u> Mathematics for Scientists and Engineers PREREQ: MA1003	<u>CH2103</u> Analytical Chemistry – <i>TSV only</i> PREREQ: CH1001 OR CH1011	
<u>MA2830</u> Data Visualisation	<u>EV2502</u> Introduction to Geographic Information Systems PREREQ: 12CP LEVEL 1 SUBJECTS	
<u>SC3010</u> Sensors and Sensing for Scientists PREREQ: SC2202/SC2209	<u>MA2210</u> Linear Algebra PREREQ: MA1003	
		<b>Trimester 3 (Sept-Dec)</b>
		<u>CP2404</u> 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 who undertake this major and a second major of Aquaculture Science and Technology, Marine Biology or Zoology and Ecology will have BS1001 removed from the secondary major structure and replaced with a Level 1 subject elective.

### **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](#)

[Molecular and Cell Biology major handbook](#)