

RECOMMENDED STUDY PLAN

2022

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

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	Degree Core: <u>SC1101</u> Science Technology and Truth	Degree Option Core <u>SC1102</u> Modelling Natural Systems PREREQ: MA1020 OR <u>SC1109</u> Modelling Natural Systems-Advanced^ PREREQ: MA1000 OR MA1009
	Core: Select a subject from <u>Breadth-List 1</u>	Core: Select a subject from <u>Breadth-List 1</u>
	Students who have not completed High School Maths Methods (or equivalent) must take Degree Core: <u>MA1020</u> Preparatory Math* <i>*This subject is equivalent to QLD-Maths Methods from high school.</i> OR Elective - if student has completed high school level Maths Methods or equivalent	Major Core: <u>BS1001</u> Introduction to Biological Processes
	Major Core: <u>BM1000</u> Introductory Biochemistry and Microbiology PREREQ: CH1020 OR SENIOR CHEMISTRY	
	SP3 (Jan-Feb) Students who have not completed High School Chemistry (or equivalent) must take Degree Core: <u>CH1020</u> Preparatory Chemistry# <i>#This subject is equivalent to chemistry from high school.</i> OR Elective - 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.

	Study Period 1 - SP1	Study Period 2 - SP2
Year 2	Degree Option Core: <u>SC2202</u> Quantitative Methods in Science PREREQ: SC1102 OR MA1020 OR MA1000 OR MATHS B OR EQUIVALENT OR <u>SC2209</u> Quantitative Methods in Science-Advanced PREREQ: SC1109 AND MA1003 PLUS 6CP OF OTHER LEVEL 1 SUBJECTS	Degree Core Skill-List 2: <i>Subjects available across a number of study periods/trimesters, see list for full availabilities.</i>
	Major Core: <u>BC2013</u> Principles of Biochemistry PREREQ: 18CP LEVEL 1 SUBJECTS WHICH INCLUDES BM1000 AND BS1001	Major Core: <u>BC2023</u> Molecular Genetics PREREQ: 18CP LEVEL 1 SUBJECTS INCLUDING BM1000
	Elective	Major Core: <u>BC2024</u> Cell Biology PREREQ: BM1000 AND 18CP LEVEL 1 SUBJECTS
	Elective	Elective

	Study Period 1 - SP1	Study Period 2 - SP2
Year 3	Degree Option Core: <u>SC3008</u> Professional Placement PREREQ: COMPLETED 12CP SECOND YEAR SUBJECTS AND BE ENROLLED IN THEIR FINAL YEAR OF STUDY OR <u>SC5008</u> Professional Placement – <i>Prior approval required</i> OR <u>SC3901</u> Special Topic 1– <i>Prior approval required</i> <i>All available in multiple study periods</i>	
	Major Core: <u>BC3101</u> Genes, Genomes, and Development PREREQ: BC2023	Major Core: <u>BC3201</u> Bioengineering PREREQ: BC2013 AND BC2023
	Major Core: <u>BC3102</u> Molecular Basis of Disease PREREQ: BC2013 AND BC2024	Elective <u>BC3202</u> <i>Special Topics in Biochemistry and Molecular Biology - Recommended</i> PREREQ: BC2013 AND BC2023 AND BC2024
	Elective	Elective <u>BC3203</u> <i>Bioinformatics - Recommended</i> PREREQ: SC2202/SC2209 OR MA2405 OR (BC3101 AND HS2402)
	Elective	

Further Degree Options:

Breadth-List 1:	
Study Period 1 – SP1	Study Period 2 – SP2
<u>BM1000</u> Introductory Biochemistry and Microbiology – <i>TSV only</i> – already in major PREREQ: CH1020 OR SENIOR CHEMISTRY	<u>BS1001</u> Introduction to Biological Processes - <i>already in major</i>
<u>BS1007</u> Introduction to Biodiversity	<u>CH1002</u> Chemistry: Principles & Applications – <i>TSV only</i> PREREQ: CH1001 OR CH1011
<u>CH1001</u> Chemistry: A Central Science PREREQ: CH1020 OR EG1010 OR SENIOR CHEMISTRY	<u>EA1110</u> Evolution of the Earth
<u>EG1000</u> Engineering 1	<u>MA1003</u> Mathematical Techniques PREREQ: MA1000 OR MA1011 OR MA1009
<u>EV1005</u> Environmental Processes & Global Change	<u>MA1580</u> Foundations of Data Science PREREQ: MA1000 OR MA1020 OR MATHS B
<u>MA1000</u> Mathematical Foundations PREREQ: MA1020 OR MATHEMATICS B OR MATHS C	<u>PH1007</u> Advanced Stream Physics 2 – <i>TSV only</i> PREREQ: ((MATHS B OR EQUIVALENT OR MA1020) AND PH1005) OR (PHYSICS AND MATHS C)
<u>PH1005</u> Advanced Stream Physics 1 PREREQ: Maths B OR MA1020 OR MA1000 OR MA1008.	
Trimester 1 (Feb-May)	Trimester 3 (Sept-Dec)
<u>CP1401</u> Problem Solving and Programming I	<u>CP1404</u> Programming II PREREQ: CP1401 OR EG1002

Skill-List 2:	
Study Period 1 – SP1	Study Period 2 – SP2
<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
	Trimester 3 (Sept-Dec)
	<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.

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](#)