

### **Bachelor of Advanced Science**

## MAJOR Marine Biology

# SECOND MAJOR Aquaculture Science and Technology

This study plan should be used as a general guide for your course. We recommend you consult with your <u>CSE</u> <u>Course/Major Advisor</u> 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: <u>Subject Search</u>
To register for your classes: <u>Class Registration</u>
For important dates check: Academic Calendars

Further enrolment resources: Enrolment Resources

\*NOTE- students studying this as a second major in conjunction with the Marine Biology Major have subject overlaps. Subject content contained in BS1007, BS1001 and BS2470 is completed as part of the Marine Biology Major and this has been taken into account in your study plan.

	STUDY PERIOD 1	STUDY PERIOD 2
Year 1	Course SC1101:03 Science, Technology and Truth	Course  MA1003:03 Mathematical Techniques  PREREQ: MA1000 or MA1011 or MA1009
	Course  MA1000:03 Mathematical Foundations  PREREQ: MA1020 or MA0020 or Maths C	Course SC1109:03 Modelling Natural Systems-Advanced PREREQ: MA1000 or MA1009
	Course CH1020:03 Preparatory Chemistry (or any Level 1, 2, 3 or 5 subject if already satisfied via previous study)	Major BS1001:03 Introduction to Biological Processes
	Major BS1007:03 Introduction to Biodiversity	Second Major Select 3 credit points of subjects from List 1 (Breadth Subjects)



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	STUDY PERIOD 1	STUDY PERIOD 2
	Course SC2209:03 Quantitative Methods in Science-A PREREQ: MA1003 and (SC1109 plus 6 credit points of or subjects)	Select 3 credit points of subjects from <b>List 1</b>
	Major <b>BS2470</b> :03 Evolution <i>PREREQ: BZ1001 or BS1001 or BZ1005</i>	Major  BS2460:03 Fundamentals of Ecology  PREREQ: 6 credit points of Level 1 or 2 BZ/BS or EV subjects
Year 2	Major  MB2050:03 Functional Biology of Marine Orga  PREREQ: ZL1001 or BZ1004 or AG1004 or BZ1007 or B BZ1006	Select 3 credit points of subjects from <b>List 1</b>
	Second Major  AQ2001:03 Introduction to Aquaculture  PREREQ: At least 12 credit points of Level 1 science BS, EA, EV, MA, MB, PH or SC subject	3Z, CH,
	STUDY DEDIOD 2	

STUDY PERIOD 3 (Jan-Feb)	STUDY PERIOD 7 (Jun-Jul)	STUDY PERIOD 10 (Nov-Jan)	
	Second Major		
	AQ3003:03 Aquaculture: Propagation (SP7)		
	PREREQ: AQ2001 AND at least 12 credit points of Level 2 science AQ, BC, BS, BZ, CH, EA, EV, MA, MB, PH, or SC subjects.		
	OR		
	AQ3004:03 Aquaculture: Stock Improvement (SP10)		
	PREREQ: At least 12 credit points of Level 2 AQ, BC, BZ, CH, EA, EV, MA, MB or PH science subjects and 3 credit points of level 2 aquaculture subjects.		



	STUDY PERIOD 1		STUDY PERIOD 2	
Year 3	Major  MB3210:03 Life History and Evolution of Reef Corals  PREREQ: (SC2202 or SC2209 or BS2001 or BZ2001 or AG2001)  and at least a result of credit in MB2060 or BS2460  OR  MB3160:03 Evolution and Ecology of Reef Fishes  PREREQ: MB2050 and (MB2060 or BS2460) and a minimum mark  of credit in BS2470 or MB2070 (or MB5070 or equivalent)		Course  SC3003:03 Science Research Internship (SP1, SP2, SP3, SP7, SP11)  PREREQ: 15 credit points of AQ, BC, BS, BZ, CH, EV, EA, MA, MB, PH or SC science level 2 subjects  OR  SC3008:03 Professional Placement*  (SP1, SP2, SP3, SP7, SP11)  PREREQ: Must have successfully completed 12 second year credit points. Enrolment is restricted to students with an approved placement	
	Major  MB3050:03 Biological Oceanography  PREREQ: (BS1007 or BZ1007) and MB2050 and (SC2202 or SC2209 or BS2001 or BZ2001)  Second Major  AQ3002:03 Aquaculture: Feeds and Nutrition  PREREQ: At least 12 credit points of Level 2 AQ, BC, BZ, BS, CH, EA, EV, MA, MB or PH science subjects and 3 credit points of level 2 aquaculture subjects.		Major  MB3190:03 Coral Reef Ecology  PREREQ: Credit or better in MB2060 or BS2460  OR  MB3270:03 Wetland and Estuarine Ecosystems  PREREQ: BS1007 or BZ1007 and (MB2050 or BS2460) and (SC2202 or SC2209 or BS2001 or BZ2001)  Second Major  Select 3 credit points of any level 1, 2, 3 or 5 subject	
	Second Major MI2031:03 Diagnosis of Bacterial Diseases in Aquaculture			
	STUDY PERIOD 3 (Jan-Feb)	STUDY PERIOD 7 (Jun-Jul)		STUDY PERIOD 10 (Nov-Jan)
	Second Major  AQ3015:03 Sustainable  Aquaculture  PREREQ: 12 credit points of level 2 subjects			



BREADTH SUBJECTS - LIST 1		
STUDY PERIOD 1	STUDY PERIOD 2	
BM1000:03 Introductory Biochemistry and Microbiology  PREREQ: Allow concurrent enrolment in CH1020, CH0020 or Senior Chemistry	CH1002:03 Chemistry: Principles and Applications  PREREQ: CH1001 OR CH1011 and allow concurrent for Ch1011 and CH1001	
CH1001:03 Chemistry: A Central Science  PREREQ: CH1020, CH0020 or EG1010 or High School Senior Chemistry	EA1110:03 Evolution of the Earth	
EG1000:03 Engineering 1	MA1003:03 Mathematical Techniques  PREREQ: MA1000 or MA1011 or MA1009	
EV1005:03 Environmental Processes and Global Change	MA1580:03 Foundations of Data Science  PREREQ: MA1000 or MA1020 or MA0020 or Maths B	
MA1000:03 Mathematical Foundation  PREREQ: MA1020 or MA0020 or Maths B or Maths C	PH1007:03 Advanced Stream Physics 2  PREREQ: ((Maths B or equivalent or MA1020 or MA0020) and PH1005) or (Physics and Maths C)	
PH1005:03 Advanced Stream Physics 1 PREREQ: MA1000		

TRIMESTER 1	TRIMESTER 2	TRIMESTER 3
CP1401:03 Problem Solving and Programming I	CP1401:03 Problem Solving and Programming I *External	CP1404:03 Programming II  PREREQ: CP1801 or CP1401 or CP1200 or EG1002 or CP2200 or SC1201
	CP1404:03 Programming II *External	

ADVANCED SKILL SUBJECTS - LIST 1		
STUDY PERIOD 1	STUDY PERIOD 2	
BS5260:03 Modelling Ecological Dynamics	BC5203:03 Advanced Bioinformatics	
MA2000:03 Mathematics for Scientists and Engineers  PREREQ: MA1003	CH5002:03 Research Skills and Communication in Chemistry (Advanced)  PREREQ: Satisfactory completion of 9 credit points of Level 2, 3 or 5 CH subjects	
EA5409:03 Mineralogy and Geophysics	SC5502:03 Design and Analyses in Ecological Studies	
PH5014:03 Research Skills and Communication in Physics (Advanced)		



#### **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 Advanced Science Handbook

Marine Biology Major

Aquaculture Science and Technology Major