

RECOMMENDED STUDY PLAN**2021-2022**

NAME _____ STUDENT NUMBER _____

DEGREE Master of ScienceMAJOR Tropical Biology & Conservation (TBC)

Course information – Master of Science

The Master of Science degree is structured such that students take sets of (1) foundational ‘knowledge’ specific to their major, (2) technical and / or analytical ‘skills’ subjects, and (3) *elective* subjects.

Use this document to plan out what subjects you will take and when. Consult with your course advisor about the nature of subjects, research and internship pathways and any queries you may have. The course advisor for each major in the Master of Science programs is listed [here](#). When you are ready to enrol in subjects proceed to your eStudent account.

Click here to see the relevant JCU Course handbook: <https://www.jcu.edu.au/course-and-subject-handbook/courses/postgraduate-courses/master-of-science>

Students wishing to take a semester long internship or research project need to transfer to the [MSc Professional](#) degree. This should be done before you start your JCU course.

Tropical Biology & Conservation major structure

1. Take the following 4 prescribed **Knowledge** subjects:
 - 1.1. [BZ5215](#) Conservation Biology (SP1)
 - 1.2. [BZ5061](#) Behavioural Ecology (SP2) **or** [BZ5235](#) Biological Invasions (SP1)
 - 1.3. [BZ5220](#) Population and Community Ecology (SP2) **or** [BZ5230](#) Ecological Research Methods (SP2)
 - 1.4. [BZ5740](#) Wildlife Ecology and Management (SP1) **or** [BZ5745](#) Tropical Entomology (SP3)
2. Take 4 **Skills** subjects:
 - 2.1. Take [SC5502](#) Design and Analyses in Ecological Studies (SP3) OR SC5202 Quantitative Methods in Science (SP1) (**obligatory**); **Plus:**
 - 2.2. Take 1 of the following Advanced Skill subjects in [List 1](#):
 - 2.2.1. [BS5260](#) Modelling Ecological Dynamics (SP2)
 - 2.2.2. [BZ5450](#) Ecological and Conservation Genetics (SP2)
 - 2.2.3. [EV5110](#) Environmental and Social Impact Assessment (SP2)
 - 2.2.4. [EV5502](#) Advanced Geographic Information Systems (SP11)
 - 2.2.5. [EV5506](#) Remote Sensing (SP9 / SP11)
 - 2.3. And take 2 Additional Skills subjects from [List 2](#)
 - 2.3.1. [SC5200](#) Professional Employability (SP1 and SP2)
SC5200 is recommended for all students in their first semester of study & compulsory if you are planning on taking the internship program (SC5009) in the MSc Professional degree.
3. Take 4 **Elective** subjects from [List 3](#)

Full subject descriptions and timings of all subjects can be found online using the [Subject Search](#) tool. Use this tool to explore your subject options. Each subject is usually only offered once per year, in

the 'study period' stated on Subject Search. It is generally recommended to take 8 subjects per year, with 3 or 4 in each main semester (Study Period 1 and 2), and additional subjects in the block mode (intensive) periods (SP3, SP7, SP10 /11) as necessary. An explanation to JCU's academic calendar can be found [here](#).

Multiple subjects can be taken consecutively in a block mode period as long as the face to face teaching dates do not overlap. These dates are displayed on the Subject Search tool. For example a student can take both EV5502 and EV5506 in SP11.

Please note that timings of some subjects occasionally change among years, due to JCU's operational requirements. While such changes are rare, students should check when a subject is being taught using the Subject Search tool above.

For any subject you need to have fulfilled the 'Assumed Knowledge' and / or Pre-requisites before you take them. These are listed in the subject's description. For example, EV5502 assumes you have already taken EV5505 or an equivalent at JCU or at your previous university. Speak with your course advisor for more assistance on this.

Where a subject includes overnight field trips this is noted in the subject's description on [Subject Search](#). Additional fees apply to cover trip transport, accommodation and food expenses for these field trips.

List 1. Advanced Skill Subjects (Select 1)

SP3 Jan – Feb	SP1 Feb - June	SP6 / SP7 June - July	SP2 July - Nov	SP9 Sept to Dec SP10 / 11 Nov - Dec
SC5502 :03 Design and Analyses in Ecological Studies ¹			BZ5450 :03 Ecological and Conservation Genetics	EV5502 :03 Advanced Geographic Information Systems - TSV
			EV5110 :03 Environmental and Social Impact Assessment	EV5506 :03 Remote Sensing - CNS (SP9: Sept to Nov)
			BS5260 :03 Modelling Ecological Dynamics	

¹ MB5300 and SC5502 are merged subjects in 2021. Students should have prior understanding of statistics, equivalent to SC5202.

List 2. Additional Skill Subjects (Select 2)

SP3 Jan – Feb	SP1 Feb - June	SP6 / SP7 June - July	SP2 July - Nov	SP9 Sept to Dec SP10 / 11 Nov - Dec
SC5502 :03 Design and Analyses in Ecological Studies ²	SC5200 :03 Professional Employability	BZ5990 :03 Toolkit for the Field Biologist (<i>Terrestrial studies</i>)	SC5200 :03 Professional Employability	AQ5004 :03 Aquaculture: Stock Improvement
	SC5202 :03 Quantitative Methods in Science	EA5018 :03 Field Studies in Tropical Land and Water Science ³	BZ5450 :03 Ecological and Conservation Genetics	EV5502 :03 Advanced Geographic Information Systems - TSV
	EV5020 :03 Human Dimensions of Nature, Environment and Conservation	EA5330 :03 Field Techniques ³	BS5260 :03 Modelling Ecological Dynamics	EV5506 :03 Remote Sensing - CNS (SP9 start)
		EA5044 :03 Geological Mapping ³	EV5110 :03 Environmental and Social Impact Assessment	EA5640 :03 Advanced Marine Geoscience Technologies and Applications
			EV5505 :03 Introduction to Geographic Information Systems	
			MA5405 :03 Data Mining	
			BC5203 :03 Advanced Bioinformatics	
			CH5203 :03 Analytical Chemistry (Advanced)	

² MB5300 and SC5502 are merged subjects in 2021. Students should have prior understanding of statistics, equivalent to SC5202.

³ Not intended for students in Marine Biology, Fisheries, Aquaculture or Tropical Biology & Conservation

List 3. Elective Subjects

You can take any Level 5 subject with a prefix subject code of: AQ, BS, BZ, CH, EA, EV, MA, MB, MI, SC or TV. Other subjects can also be approved by your advisor.

Use [Subject Search](#) to review the units and check the study period they are offered in.

Recommended elective subjects for TROPICAL BIOLOGY & CONSERVATION - These are our recommended and most popular units grouped by particular career pathways and/or study interests.

TOPIC	STUDY PERIOD	CAMPUS
<i>Terrestrial Biology & Ecology</i>		
BZ5745:03 Tropical Entomology	3	Cairns
BZ5740:03 Wildlife Ecology & Management	1	Townsville
BZ5925:03 Australian Terrestrial Diversity	1	Cairns & Townsville
BZ5480:03 Restoration Ecology	1	Cairns
BZ5235:03 Biological Invasions	1	Cairns
BZ5755:03 Biodiversity & Climate Change: Impact, Mitigation & Adaptation	7	Townsville
BZ5620:03 Tropical Flora of Australia	7	Cairns
BZ5650:03 Australian Land Plants: Recognition, Evolution and Diversity	1,2,7 & 11	Online - External
BZ5061:03 Behavioural Ecology	2	Cairns & Townsville
<i>Applications for Ecology</i>		
BZ5480:03 Restoration Ecology	1	Cairns
BZ5740:03 Wildlife Ecology & Management	1	Townsville
CH5041:03 Environmental Chemistry	1	Cairns & Townsville
BZ5990:03 Toolkit for the Field Biologist	7	Cairns & Townsville
BZ5450:03 Ecological & Conservation Genetics	2	Townsville
BZ5230:03 Ecological Research Methods	2 10 (to be confirmed)	Cairns (Townsville offering to be advised)
BZ5225:03 Technological Applications in Ecology	2	Cairns & Townsville
<i>Applications for Conservation & Management</i>		
EV5107:03 International Environmental Policy & Governance	3	Townsville
EV5209:03 Principles & Practices of Protected Area Management	3	Townsville
BZ3215:03 Conservation Biology	1	Cairns & Townsville
EV5020:03 Human Dimensions of Nature, Environment and Conservation	1	Townsville
EA5016:03 Hydrology	1	Cairns & Townsville
EA5018:03 Field Studies in Tropical Land & Water Science	6	Cairns
BZ5450:03 Ecological & Conservation Genetics	2	Townsville
EV5003:03 Environmental Economics	2	Townsville

EA5017:03 Soil Properties & Processes	2	Cairns & Townsville
<i>Foundations – for students without 2nd year level biology and ecology</i>		
BS5470:03 Evolution	1	Cairns & Townsville
BZ5220:03 Population and Community Ecology	2	Townsville
MB5380:03 Invertebrate Biology	2	Townsville
<i>Marine Science</i>		
EV5406:03 Coral Reef Geomorphology	1	Townsville
MB5204:03 Conserving Marine Wildlife: Sea Mammals, Birds and Reptiles	1	Townsville
MB5160:03 Evolution and Ecology of Reef Fishes	1	Townsville
MB5400:03 Life History & Evolution of Reef Corals	1	Townsville
SC5810:03 Marine Ecology and Upwelling	7	Galapagos
MB5270:03 Coastal, Estuarine & Mangrove Ecosystems	2	Townsville
AQ5007:03 Aquatic Animal Ecophysiology	2	Townsville
MB5190:03 Coral Reef Ecology	2	Townsville
MB5300: Sampling & Experimental Design	3	Townsville
MB5001:03 Tropical Marine Ecology and Coastal Impacts	11	Thailand
<i>Other</i>		
SC5901:03 Special Topic * <i>Do a mini project with a research supervisor (130 hours)</i>	any	any
SC5008:03 Professional Placement* <i>Do a 130 hour work placement</i>	any	any

**enrolment is contingent upon project supervisor's approval*

TOWNSVILLE STUDENT STUDY PLANNER

Fill in the cells below with your planned subjects. You can re-arrange when you take your skill and elective subjects contingent on when your preferred unit is taught. Aim to complete all your core & skill subjects in your first year of study. You will normally start your program in either SP1 or SP2, but can on request start in SP3 or SP7.

Year 1 Take 8 subjects (24 credit points) with 4 subjects per 6 month Teaching Period				
TEACHING PERIOD 1 (TP1 Jan – June)			TEACHING PERIOD 2 (TP2 July – December)	
SP3 Jan – Feb	SP1 Feb - June	SP6 / SP7 June - July	SP2 July - Nov	SP9 Sept to Dec SP10 / 11 Nov - Dec
	Major Core: BZ5215 Conservation Biology		Major Core: BZ5061 Behavioural Ecology	Skill subject
	Major Core: BZ5740 Wildlife Ecology and Management		Major Core: BZ5220 Population and Community Ecology	
	Major Core Skill subject: SC5202 Quantitative Methods in Science		Advanced skill subject	
	Skill subject SC5200 Professional Employability ^b <i>recommended.</i> OR Elective		Skill subject SC5200 Professional Employability ^b <i>recommended.</i> OR Elective	

Notes: Pink are core knowledge subjects, Grey are skills subjects, White are electives. Skills and elective timings are suggestions only.

b. SC5200 unit is recommended for all students and should be taken in the first study period of your degree. It is offered in both SP1 and SP2.

Year 2 Take 4 subjects in your final semester.				
TEACHING PERIOD 1 (TP1 Jan – June)			TEACHING PERIOD 2 (TP2 July – December)	
SP3 Jan – Feb	SP1 Feb - June	SP6 / SP7 June - July	SP2 July - Nov	SP9 Sept to Dec SP10 / 11 Nov - Dec
Elective OR Core Skill SC5502 ^a	Elective			
	Elective			
	Elective			

^a SC5502 can be taken in Year 1 or at the start of Year 2.

CAIRNS STUDENT STUDY PLANNER

Fill in the cells below with your planned subjects. You can re-arrange when you take your skill and elective subjects contingent on when your preferred unit is taught. Aim to complete all your core & skill subjects in your first year of study. You will normally start your program in either SP1 or SP2, but can on request start in SP3 or SP7.

Year 1 Take 8 subjects (24 credit points) with 4 subjects per 6 month Teaching Period				
TEACHING PERIOD 1 (TP1 Jan – June)			TEACHING PERIOD 2 (TP2 July – December)	
SP3 Jan – Feb	SP1 Feb - June	SP6 / SP7 June - July	SP2 July - Nov	SP9 Sept to Dec SP10 / 11 Nov - Dec
	Major Core: BZ5215 Conservation Biology		Major Core: BZ5230 Ecological Research Methods	Skill subject
	Major Core: BZ5235 Biological Invasions		Advanced skill subject	
	Major Core Skill subject: SC5202 Quantitative Methods in Science		Skill subject SC5200 Professional Employability ^b <i>recommended.</i> OR Elective	
	Skill subject SC5200 Professional Employability ^b <i>recommended.</i> OR Elective			

Notes: Pink are core knowledge subjects, Grey are skills subjects, White are electives. Skills and elective timings are suggestions only.

b. SC5200 unit is recommended for all students and should be taken in the first study period of your degree. It is offered in both SP1 and SP2.

Year 2 Take 4 subjects in your final semester.				
TEACHING PERIOD 1 (TP1 Jan – June)			TEACHING PERIOD 2 (TP2 July – December)	
SP3 Jan – Feb	SP1 Feb - June	SP6 / SP7 June - July	SP2 July - Nov	SP9 Sept to Dec SP10 / 11 Nov - Dec
Elective OR Core Skill SC5502 ^a	Elective			
	Elective			
	Elective			

^a SC5502 can be taken in Year 1 or at the start of Year 2.