

RECOMMENDED STUDY PLAN**2020-2021**

NAME _____ STUDENT NUMBER _____

DEGREE PROGRAM **Master of Science** MAJOR **Tropical Biology & Conservation (MSC-TBI)**

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.

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

Tropical Biology & Conservation major structure:

1. Take 4 prescribed ‘*knowledge*’ subjects
 - 1.1. [BZ5215](#):03 Conservation Biology
 - 1.2. [BZ5061](#):03 Behavioural Ecology **or** [BZ5235](#):03 Biological Invasions
 - 1.3. [BZ5220](#):03 Population and Community Ecology **or** [BZ5230](#):03 Ecological Research Methods
 - 1.4. [BZ5740](#):03 Wildlife Ecology and Management **or** [BZ5745](#):03 Tropical Entomology
2. Take 4 ‘*skills*’ subjects for your major
 - 2.1. [SC5202](#):03 Quantitative Methods in Science **or** [SC5502](#):03 Design and Analyses in Ecological Studies
 - 2.2. Plus 1 of the following *advanced skills* subject
 - 2.2.1. [BS5260](#):03 Modelling Ecological Dynamics **or**
 - 2.2.2. [BZ5450](#):03 Ecological and Conservation Genetics **or**
 - 2.2.3. [EV5110](#):03 Environmental and Social Impact Assessment **or**
 - 2.2.4. [EV5502](#):03 Advanced Geographic Information Systems **or**
 - 2.2.5. [EV5506](#):03 Remote Sensing
 - 2.3. Plus 2 subjects from **List 1**
3. Take 4 *elective* subjects (see recommended electives list)

Full subject descriptions and timings of all subjects can be found online using the [Subject Search](#) tool. It is generally recommended to take 8 subjects per year, with 3 - 4 in SP1 and SP2 and additional subjects in block mode periods (SP3, SP7, SP10 /11) as necessary. You need to have fulfilled the ‘Assumed Knowledge’ or Prerequisites for any subject, 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.

Research Projects and Placement subjects. Students wishing to take a 12 credit point independent research project or professional placement need to transfer into the Master of Science (Professional) program to complete these.

RECOMMENDED STUDY PLAN - **TOWNSVILLE**

Colour legend: Pink are core 'major or knowledge' subjects, Grey are skills subjects, White are electives.

Level 5: Year 1 (take 8 subjects / 24 credit points)

SP3	SP1	SP6/7	SP2	SP9/10/11
	Major Core: BZ5215 :03 Conservation Biology TSV + CNS		Major Core: BZ5061 :03 Behavioural Ecology	Skill subject
	Major Core: BZ5740 :03 Wildlife Ecology and Management		Major Core: BZ5220 :03 Population and Community Ecology	
	Major Core Skill subject: SC5202 :03 Quantitative Methods in Science		Advanced skill subject	

Notes:

Boxes without specific subjects listed in them may be rearranged to meet your course needs as long as the total number of subjects and degree structure is met. For example, you may choose to move a SP1 elective in Year 1 to SP7 in Year 2.

Level 5: Year 2 (take 12 credit points)

SP3	SP1	SP6/7	SP2	SP10/SP11
Elective	Elective			
	Elective			
	Elective			

RECOMMENDED STUDY PLAN - CAIRNS

Colour legend: Pink are core 'major or knowledge' subjects, Grey are skills subjects, White are electives, Blue are professional practice.

Level 5: Year 1 (take 8 subjects / 24 credit points)

SP3	SP1	SP6/7	SP2	SP9/10/11
	Major Core: BZ5215:03 Conservation Biology TSV + CNS		Major Core: BZ5230:03 Ecological Research Methods	Skill subject
	Major Core: BZ5235:03 Biological Invasions		Advanced skill subject	
	Major Core Skill subject: SC5202:03 Quantitative Methods in Science		Elective	
	Elective			

Notes:

Boxes without specific subjects listed in them may be rearranged to meet your course needs as long as the total number of subjects and degree structure is met. For example, you may choose to move a SP1 elective in Year 1 to SP7 in Year 2.

Level 5: Year 2 (take 12 credit points)

SP3	SP1	SP6/7	SP2	SP10/SP11
Major Core: BZ5745:03 Tropical Entomology	Skill subject			
	Elective			
	Elective			

Skill Subjects:

In addition to the **Major Core Skill Subject** (SC5502 or SC5202), choose 1 advanced skill subject 2 subjects from **List 1**. You must meet the Assumed Knowledge or Prerequisites for any subject selected.

Advanced Skill Subjects (Select 1)

SP1	SP2	SP9/SP10/SP11
BS5260:03 Modelling Ecological Dynamics TSV	BZ5450:03 Ecological and Conservation Genetics TSV	EV5502:03 Advanced Geographic Information Systems - TSV
	EV5110:03 Environmental and Social Impact Assessment	EV5506:03 Remote Sensing -CNS LTD (SP9)

List 1 – Additional Skill Subjects (Select 2)

SP3	SP1	SP6/7	SP2	SP9/SP10/SP11
SC5502:03 Design and Analyses in Ecological Studies	SC5202:03 Quantitative Methods in Science ¹	EA5018:03 Field Studies in Tropical Land and Water Science ²	BC5203:03 Advanced Bioinformatics	AQ5004:03 Aquaculture: Stock Improvement TSV
MB5300:03 Sampling and Experimental Design ³	BS5260:03 Modelling Ecological Dynamics	EA5330:03 Field Techniques ³	BZ5450:03 Ecological and Conservation Genetics	EV5502:03 Advanced Geographic Information Systems - TSV
	EV5020:03 Human Dimensions of Nature, Environment and Conservation	SC5232:03 Marine Sensor Technologies and Applications ⁴	CH5203:03 Analytical Chemistry (Advanced)	EV5506:03 Remote Sensing -CNS LTD (SP9)
		BZ5990:03 Toolkit for the Field Biologist	EV5110:03 Environmental and Social Impact Assessment	EA5640:03 Advanced Marine Geoscience Technologies and Applications TSV
		EA5044:03 Geological Mapping ³	EV5505:03 Introduction to Geographic Information Systems	
			MA5405:03 Data Mining	
			SC5202:03 Quantitative Methods in Science	

¹ SC5202 is a required unit if you have not already completed a statistics subject at university.

² Not intended for students in Marine Biology, Fisheries, Aquaculture or Tropical Biology & Conservation

³ Merged with SC5502 for 2020. SC5202 is a required unit if you have not already completed a statistics subject at university

⁴ Not yet available

			(mixed attendance)	
--	--	--	--------------------	--

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

Recommended elective subjects for this Major: The recommended elective subject sets for specific career pathways and/or or study areas:

TOPIC	STUDY PERIOD
<i>Plants</i>	
BZ5615:03 Plant Survival in a land of Fire, Flood and Drought	1
BZ5620:03 Tropical Flora of Australia	7, CNS
BZ5650:03 Australian Land Plants: Recognition, Evolution and Diversity	1,11,2,7 EXT
<i>Taxa specialisations</i>	
BZ5745:03 Tropical Entomology	3 CNS
MB5204:03 Conserving Marine Wildlife: Sea Mammals, Birds and Reptiles	1 TVL
MB5380:03 Invertebrate Biology	2 TVL
<i>Ecology</i>	
BZ5880:03 Ecology: Distribution, Abundance and Diversity	2 CNS
BZ5225:03 Technological Applications in Ecology	2 CNS
BZ5230:03 Ecological Research Methods	2 CNS
BZ5450:03 Ecological and Conservation Genetics	2 TVL
BZ5480:03 Restoration Ecology	1 CNS
MB5160:03 Evolution and Ecology of Reef Fishes	1 TVL
AQ5007:03 Aquatic Animal Ecophysiology	2 TVL
MB5270:03 Coastal, Estuarine & Mangrove Ecosystems	2 TVL
MB5450:03 Behaviour of Marine Animals	7 TVL
<i>Note-Offered in odd-numbered years.</i>	
<i>Biology</i>	
BZ5808:03 Adapting to Environmental Challenges	2 CNS
MB5160:03 Evolution and Ecology of Reef Fishes	1 TVL
MB5400:03 Life History & Evolution of Reef Corals	1 TVL
MI5003:03 Advanced Marine Microbiology	1 TVL
MB5380:03 Invertebrate Biology	2 TVL
AQ5007:03 Aquatic Animal Ecophysiology	2 TVL
<i>Foundations</i>	
BZ5220:03 Population and Community Ecology	2 TVL
BS5470:03 Evolution	1 TVL

MB5380:03 Invertebrate Biology	2 TVL
BS5460:03 Fundamentals of Ecology	2 TVL
<i>Applied Studies</i>	
MB5310:03 Marine Reserves as Fisheries Management Tools	3 TVL
AQ5006:03 Principles and Practices of Aquaculture	1 TVL
MB5003:03 Fisheries Science	1 TVL
AQ5015:03 Sustainable Aquaculture	3 TVL
MB5610:03 Fishing Gear and Technologies	2 TVL
MB5014:03 Managing Tropical Fisheries	11 TVL
<i>Applications for Conservation</i>	
BZ3215:03 Conservation Biology	1 TVL, CNS
EV5020:03 Human Dimensions of Nature, Environment and Conservation	1 TVL
EV5107:03 International Environmental Policy & Governance	3 TVL
BZ5450:03 Ecological & Conservation Genetics	2 TVL
EV5003:03 Environmental Economics	2 TVL
<i>Coastal Resource Management</i>	
EV5406:03 Coral Reef Geomorphology	1 TVL
MB5204:03 Conserving Marine Wildlife: Sea Mammals, Birds and Reptiles	1 TVL
EV5020:03 Human Dimensions of Nature, Environment and Conservation	1 TVL
MB5270:03 Coastal, Estuarine & Mangrove Ecosystems	2 TVL
<i>Unique Ecosystems</i>	
SC5810:03 Marine Ecology and Upwelling	7 (Galapagos)
MB5001:03 Tropical Marine Ecology and Coastal Impacts	11 (Thailand)