RECOMMENDED STUDY PLAN **2021-2022**

NAME _____ **STUDENT NUMBER** _____

DEGREE Master of Science **MAJOR Fisheries Science & Management (FSM)**

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.

Fisheries Science & Management - Major structure

1. Take the following 4 prescribed **Knowledge** subjects:
   - 1.1. MB5003 Fisheries Science (SP1)
   - 1.2. EV5020 Human Dimensions of Nature, Environment and Conservation (SP1)
   - 1.3. MB5610 Fishing Gear and Technologies (SP2)
   - 1.4. MB5014 Managing Tropical Fisheries (SP11)
2. Take 4 **Skills** subjects:
   - 2.1. Take MB5300:03 Sampling and Experimental Design OR SC5502:03 Design and Analyses in Ecological Studies (SP3) ***(obligatory); Plus:***
   - 2.2. Take 1 of the following Advanced Skill subjects from 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 Skill subjects from List 2.
     - 2.3.1. *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 SC5502 in SP3 followed by MB5310.

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
			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 start: Sept to Nov)
			BS5260:03 Modelling Ecological Dynamics	

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
	SC5200:03 Professional Employability	BZ5990:03 Toolkit for the Field Biologist *(Terrestrial studies)*	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 [1]	BZ5450:03 Ecological and Conservation Genetics	EV5502:03 Advanced Geographic Information Systems - TSV
		EA5330:03 Field Techniques [1]	BS5260:03 Modelling Ecological Dynamics	EV5506:03 Remote Sensing - CNS (SP9 start)
		EA5044:03 Geological Mapping[1]	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)	

[1] 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 FISHERIES SCIENCE & MANAGEMENT - These are our recommended and most popular units grouped by particular career pathways and/or study interests.

TOPIC	STUDY PERIOD
Fisheries Science (biology)	
MB5055:03 Biological Oceanography	1
MB5620:03 Grand Challenges in Fisheries	1
MB5070:03 Marine Biogeography	1
MI5003:03 Advanced Marine Microbiology	1
AQ5006:03 Principles and Practices of Aquaculture	1
BS5260:03 Modelling Ecological Dynamics	7
MB5380:03 Invertebrate Biology	2
AQ5007:03 Aquatic Animal Ecophysiology	2
AQ5004:03 Aquaculture: Stock Improvement	10
Fisheries Management & Governance - Applications	
MB5310:03 Marine Reserves as Fisheries Management Tools	3
EV5209:03 Principles and Practices of Protected Area Management	3
EV5107:03 International Environmental Policy & Governance	3
AQ5015:03 Sustainable Aquaculture	3
EV5701:03 Managing Coastal and Marine Environments	1
MB5620:03 Grand Challenges in Fisheries	1
EV5003:03 Environmental Economics	2
PL5006:03 Political Communication; Ecology & Environmentalism	2
Fisheries Technology	
MB5055:03 Biological Oceanography	1
EV5506:03 Remote Sensing (CNS block mode)	9 (Sept – Nov)
MB5620:03 Grand Challenges in Fisheries	1
Fisheries Ecology & Conservation	
MB5310:03 Marine Reserves as Fisheries Management Tools	3
MB5620:03 Grand Challenges in Fisheries	1
MB5270:03 Coastal, Estuarine and Mangrove Ecosystems	2
MB5190:03 Coral Reef Ecology	2
MB5004:03 Marine Conservation Biology	2
MB5001:03 Tropical Marine Ecology & Coastal Impacts	11
Other	
SC5901:03 Special Topic * *Do a mini project with a research supervisor (130 hours)*	any
SC5008:03 Professional Placement* *Do a 130 hour work placement*	any

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

YOUR 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 MB5003 Fisheries Science		**Major core** MB5610 Fishing Gear and Technologies	**Major core** MB5014 Managing Tropical Fisheries
	Major core EV5020 Human Dimensions of Nature, Environment and Conservation		**Advanced skill subject**	
	Skill subject SC5200 Professional Employability [b] *recommended.*		**Elective Or Skill Subject**	
	Skill subject SC5202 Quantitative Methods in Science *recommended* **Or Elective**			

***Notes**:* Pink are core knowledge subjects, Grey are skills subjects, White are electives. Elective and Skills subject 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.

DEGREE PROGRAM Master of Science **MAJOR** Fisheries Science & Management (FSM)

<table>
<tr><td colspan="5">Year 2 Take 4 subjects (12 credit points) in your 3rd semester.</td></tr>
<tr><td colspan="3">TEACHING PERIOD 1 (TP1 Jan – June)</td><td colspan="2">TEACHING PERIOD 2 (TP2 July – December)</td></tr>
<tr><td>SP3
Jan – Feb</td><td>SP1
Feb - June</td><td>SP6 / SP7
June - July</td><td>SP2
July - Nov</td><td>SP9 Sept to Dec
SP10 / 11 Nov - Dec</td></tr>
<tr><td>Core Skill subject *
MB5300 Sampling & Experimental Design OR SC5502 Design & Analysis in Ecological Studies</td><td>Elective
MB5620 Grand Challenges in Fisheries</td><td rowspan="4"></td><td rowspan="4"></td><td rowspan="4"></td></tr>
<tr><td>Elective
MB5310 Marine Reserves as Fisheries Management Tools</td><td>Elective</td></tr>
<tr><td rowspan="2"></td><td></td></tr>
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* Pre-requisite knowledge is a university level introductory statistics unit or SC5202. MB5300 and SC5502 are merged subjects in 2021.