DEGREE Master of Science-Professional, MAJOR Aquaculture Science & Technology (MSC-AQS)

RECOMMENDED STUDY PLAN **2020-2021**

NAME _____ **STUDENT NUMBER** _____

DEGREE PROGRAM Master of Science-Professional MAJOR Aquaculture Science & Technology (MSC-AQS)

Course information – Master of Science (Professional)

The Master of Science (Professional) degree is structured such that students take sets of (1) foundational '*knowledge*' specific to their major, (2) technical and / or analytical '*skills*' subjects (3) *elective* subjects and (4) a capstone *project* module.

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

Aquaculture, Science & Technology major structure:

1. Take 4 prescribed '*knowledge*' subjects
   1.1. AQ5015:03 Sustainable Aquaculture
   1.2. AQ5002:03 Aquaculture: Feeds and Nutrition
   1.3. AQ5006:03 Aquaculture: Principles and Practice
   1.4. AQ5003:03 Aquaculture: Propagation
2. Take 12 credit points of '*skills*' subjects for your major
   2.1. AQ5012:06 Aquaculture: Hatchery Techniques
   2.2. Plus 2 subjects from **List 1**
3. Take 4 *elective* subjects (see recommended electives list)
4. Take 12 credit points of *Professional Practice* (select a stream)
   4.1. Option 1- Research Stream ***OR***
   4.2. Option 2- Professional Project Stream ***OR***
   4.3. Option 3- combined Research & Professional Project Stream

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.

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

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

SP3	SP1	SP6/7	SP2	SP9/10/11
	Major core subject AQ5002:03 Aquaculture: Feeds and Nutrition	**Major core subject** AQ5003:03 Aquaculture: Propagation	**Skill subject**	**Elective**
	Major core subject AQ5006:03 Aquaculture: Principles and Practice:		**Elective**	
	Skill subject SC5202:03 Quantitative Methods in Science *		**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.
** compulsory subject if not already completed during undergraduate degree*

Level 5: Year 2 (take 24 credit points)

SP3	SP1	SP6/7	SP2	SP10/SP11
Major core subject AQ5015:03 Sustainable Aquaculture	**Major Skills subject** AQ5012:06 Aquaculture: Hatchery Techniques		**Professional Practice subjects (12cp)** Choose a stream	
	Elective			
	Elective			

Skill Subjects:

In addition to the **Major Core Skill Subject** (AQ5012), choose 2 subjects from **List 1**. You must meet the Assumed Knowledge or Prerequisites for any subject selected.

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
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
		EA5044:03 Geological Mapping[3]	EV5505:03 Introduction to Geographic Information Systems	
			MA5405:03 Data Mining	
			SC5202:03 Quantitative Methods in Science (MIXED MODE)	

[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
[4] Not yet available

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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 AQUACULTURE, SCIENCE AND TECHNOLOGY - These are our recommended elective subject sets for specific career pathways and/or study interests

TOPIC	STUDY PERIOD
Aquaculture specialisations:	
AQ5008:03 Aquaculture: System Design	1
AQ5007:03 Aquatic Animal Ecophysiology	2
AQ5009:03 Aquaculture of Tropical Species	2
TV5240:03 Aquatic Pathobiology	2
AQ5004:03 Aquaculture: Stock Improvement	10
AQ5016:03 Aquaculture in Practice *Note-Offered in even-numbered years*	7 (alternate yrs)
Marine Science electives	
MB5003:03 Fisheries Science	1
MB5400:03 Life History & Evolution of Reef Corals	1
MB5004:03 Marine Conservation Biology	2
MB5610:03 Fishing Gear& Technologies	2
MB5270:03 Coastal, Estuarine and Mangrove Ecosystems	2
MB5380:03 Invertebrate Biology	2
MB5204:03 Conserving Marine Wildlife: Sea Mammals, Birds and Reptiles	1
MB5260 Grand Challenges in Fisheries	1
Environmental Management electives	
CH5041:03 Environmental Chemistry	1
EC5218:03 Economics and Sustainable Resource Management	1
MB5310:03 Marine Reserves as Fisheries Management Tools	3
MB5014:03 Managing Tropical Fisheries	11
EV5107:03 International Environmental Policy and Governance	3