

**RECOMMENDED STUDY PLAN****2020-2021**

NAME \_\_\_\_\_ STUDENT NUMBER \_\_\_\_\_

DEGREE PROGRAM **Master of Science** MAJOR **Environmental Earth Science (MSC-EES)**

---

**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 (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>

---

***Environmental Earth Science major structure:***

1. Take 4 prescribed ‘*knowledge*’ subjects
  - 1.1. [EA5016](#):03 Hydrology
  - 1.2. [EA5017](#):03 Soil Properties and Processes
  - 1.3. [EA5046](#):03 Earth and Environmental Geochemistry
  - 1.4. [EA5404](#):03 From Icehouse to Greenhouse
  
2. Take 4 ‘*skills*’ subjects for your major
  - 2.1. [EA5018](#):03 Field Studies in Tropical Land and Water Science
  - 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
    - 2.2.6. [MB5300](#):03 Sampling and Experimental Design **or**<sup>1</sup>
    - 2.2.7. [SC5502](#):03 Design and Analyses in Ecological Studies
  - 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.

---

<sup>1</sup> Not offered in 2020. Merged with SC5502.

*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

*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
	<b>Major Core:</b> <a href="#">EA5016:03</a> Hydrology TSV + CNS	<b>Major Skill Core:</b> <a href="#">EA5018:03</a> Field Studies in Tropical Land and Water Science	<b>Major Core:</b> <a href="#">EA5017:03</a> Soil Properties and Processes. TSV + CNS	<b>Advanced Skill subject</b>
	<b>Skill subject</b>		<b>Major Core:</b> <a href="#">EA5046:03</a> Earth and Environmental Geochemistry	
	<b>Skill subject</b>		<b>Major Core:</b> <a href="#">EA5404:03</a> From Icehouse to Greenhouse	

*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
<b>Elective</b>	<b>Elective</b>			
	<b>Elective</b>			
	<b>Elective</b>			

*Skill Subjects:*

In addition to the **Major Core Skill Subject** (EA5018), 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
<a href="#">BS5260:03</a> Modelling Ecological Dynamics	<a href="#">BZ5450:03</a> Ecological and Conservation Genetics	<a href="#">EV5502:03</a> Advanced Geographic Information Systems - TSV TSV
	<a href="#">EV5110:03</a> Environmental and Social Impact Assessment	<a href="#">EV5506:03</a> Remote Sensing -CNS LTD (SP9)

## List 1 – Additional Skill Subjects (Select 2)

SP3	SP1	SP6/7	SP2	SP9/SP10/SP11
<a href="#">SC5502:03</a> Design and Analyses in Ecological Studies TSV	<a href="#">SC5202:03</a> Quantitative Methods in Science <sup>2</sup>	<a href="#">EA5018:03</a> Field Studies in Tropical Land and Water Science <sup>3</sup>	<a href="#">BC5203:03</a> Advanced Bioinformatics	<a href="#">AQ5004:03</a> Aquaculture: Stock Improvement
<a href="#">MB5300:03</a> Sampling and Experimental Design <sup>4</sup>	<a href="#">BS5260:03</a> Modelling Ecological Dynamics	<a href="#">EA5330:03</a> Field Techniques <sup>3</sup>	<a href="#">BZ5450:03</a> Ecological and Conservation Genetics	<a href="#">EV5502:03</a> Advanced Geographic Information Systems - TSV
	<a href="#">EV5020:03</a> Human Dimensions of Nature, Environment and Conservation	<a href="#">SC5232:03</a> Marine Sensor Technologies and Applications <sup>5</sup>	<a href="#">CH5203:03</a> Analytical Chemistry (Advanced)	<a href="#">EV5506:03</a> Remote Sensing -CNS LTD (SP9)
		<a href="#">BZ5990:03</a> Toolkit for the Field Biologist	<a href="#">EV5110:03</a> Environmental and Social Impact Assessment	<a href="#">EA5640:03</a> Advanced Marine Geoscience Technologies and Applications
		<a href="#">EA5044:03</a> Geological Mapping <sup>3</sup>	<a href="#">EV5505:03</a> Introduction to Geographic Information Systems	
			<a href="#">MA5405:03</a> Data Mining	
			<a href="#">SC5202:03</a> Quantitative Methods in Science	

<sup>2</sup> SC5202 is a required unit if you have not already completed a statistics subject at university.

<sup>3</sup> Not intended for students in Marine Biology, Fisheries, Aquaculture or Tropical Biology & Conservation

<sup>4</sup> Merged with SC5502 for 2020. SC5202 is a required unit if you have not already completed a statistics subject at university

<sup>5</sup> Not yet available

			<a href="#">SC5202:03</a> Quantitative Methods in Science (mixed mode)	
--	--	--	---	--

***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 the ENVIRONMENTAL EARTH SCIENCE Major** - These are our recommended elective subject sets for specific career pathways and/or study interests

TOPIC	STUDY PERIOD
<i>Aquaculture electives:</i>	
AQ5004:03 Aquaculture: Stock Improvement	10
<i>Hydrology</i>	
EA5090:03 Applied Hydrology (CNS only)	1
CH5041:03 Environmental Chemistry	1
EV5406:03 Coral Reef Geomorphology	1
EV5401:03 Coastal and Catchment Geomorphology	2
EV5454:03 Natural Hazards	2
EA5340:03 Disturbed Site Repair	2
<i>Geology</i>	
EA5320:03 Earth Resources, Exploration and Environment	1
EA5340:03 Disturbed Site Repair	2
EA5650:03 Sedimentary Environments and Energy Resources	2
EA5640:03 Advanced Marine Geoscience Technologies and Applications	11
EA5046:03 Earth and Environmental Geochemistry	2
<i>Marine Science electives</i>	
SC5502 Design & Analysis in Ecological Studies <i>Note-Prerequisite for this subject is a basic univariate statistics course from university.</i>	3
EV5406:03 Coral Reef Geomorphology	1
EA5640:03 Advanced Marine Geoscience Technologies and Applications	11
<i>Surface Processes</i>	
EV5015:03 Sustainability in Practice	1
EV5406:03 Coral Reef Geomorphology	1
EV5401:03 Coastal and Catchment Geomorphology	2
EV5454:03 Natural Hazards	2
EA5340:03 Disturbed Site Repair	2