RECOMMENDED STUDY PLAN 2021-2022

NAME _____ **STUDENT NUMBER** _____

DEGREE Master of Science **MAJOR Environmental Earth Science (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, 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.

Environmental Earth Science major structure

1. Take the following 4 prescribed **Knowledge** subjects:
   - 1.1. EA5016 Hydrology (SP1)
   - 1.2. EA5017 Soil Properties and Processes (SP2)
   - 1.3. EA5046 Earth and Environmental Geochemistry (SP2)
   - 1.4. EA5404 From Icehouse to Greenhouse (SP2)
2. Take 4 **Skills** subjects:
   - 2.1. Take EA5018 Field Studies in Tropical Land and Water Science (SP7) (***obligatory***); ***Plus***:
   - 2.2. ***One*** of the following Advanced skill subjects from List 1 below:
     - 2.2.1. EV5110 Environmental and Social Impact Assessment (SP2)
     - 2.2.2. EV5502 Advanced Geographic Information Systems (SP11)
     - 2.2.3. EV5506 Remote Sensing (SP9 / SP11)
     - 2.2.4. SC5502 Design and Analyses in Ecological Studies (SP3)
     - 2.2.5. BS5260 Modelling Ecological Dynamics (SP2)
     - 2.2.6. BZ5450 Ecological and Conservation Genetics (SP2)
   - 2.3. ***Two*** subjects from the additional skill subjects in List 2 below.
     Of these SC5200 Professional Employability (SP1 and SP2) is recommended for all students in their first semester of study & is compulsory if you are planning on taking the internship program (SC5009) in the MSc Professional degree.
3. Take 4 **Elective** subjects from List 3 below.

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 in SP10 (November) a student can take both EV5502 and EA5640.

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	**SP7** June - July	**SP2** July - Nov	**SP9** Sept to Dec **SP10 / 11** Nov -
			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 LTD (SP9: 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
MB5300:03 Sampling and Experimental Design [1]	SC5200:03 Professional Employability	EA5330:03 Field Techniques	SC5200:03 Professional Employability	AQ5004:03 Aquaculture: Stock Improvement
SC5502:03 Design and Analyses in Ecological Studies	SC5202:03 Quantitative Methods in Science	EA5044:03 Geological Mapping	BZ5450:03 Ecological and Conservation Genetics	EV5502:03 Advanced Geographic Information Systems - TSV
	EV5020:03 Human Dimensions of Nature, Environment and Conservation	BZ5990:03 Toolkit for the Field Biologist *(Terrestrial studies)*	CH5203:03 Analytical Chemistry (Advanced)	EV5506:03 Remote Sensing - CNS (SP9 start)
			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	
			BS5260:03 Modelling Ecological Dynamics	
			BC5203:03 Advanced Bioinformatics	

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

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 the ENVIRONMENTAL EARTH SCIENCE Major - These are our recommended and most popular units in your major.

Subject	Study Period	Campus
CH5041:03 Environmental Chemistry	1	Cairns & Townsville
EA5090:03 Applied Hydrology	1	Cairns
EA5320:03 Earth Resources, Exploration and Environment	1	Townsville
EV5015:03 Sustainability in Practice	1	Cairns & Townsville
EV5406:03 Coral Reef Geomorphology	1	Townsville
EV5200:03 Natural Resource Management	1	Townsville
EV5701:03 Managing Coastal & Marine Environments	1	Townsville
EV5020:03 Human Dimensions of Nature, Environment & Conservation	1	Townsville
BZ5480:03 Restoration Ecology	1	Cairns
EA5046:03 Earth and Environmental Geochemistry	2	Cairns & Townsville
EA5650:03 Sedimentary Environments and Energy Resources	2	Townsville
EV5401:03 Coastal and Catchment Geomorphology	2	Cairns & Townsville
EV5454:03 Natural Hazards	2	Cairns & Townsville
EV5003:03 Environmental Economics	2	Cairns & Townsville
EA5640:03 Advanced Marine Geoscience Technologies and Applications	11	Townsville
EV5404:03 Field Studies in Tropical Geography *Only taught in even-numbered years.*	11	
SC5901:03 Special Topic * - Do a mini project with a research supervisor (130 hours)	Any	Any
SC5008:03 Professional Placement* - Do a 130 hour work placement	Any	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: EA5016:03 Hydrology TSV + CNS	**Major Skill Core:** EA5018:03 Field Studies in Tropical Land and Water Science	**Major Core:** EA5017:03 Soil Properties and Processes. TSV + CNS	**Advanced Skill subject**
	Skill subject SC5200:03 Professional Employability *recommended.*		**Major Core:** EA5046:03 Earth and Environmental Geochemistry	
	Skill subject		**Major Core:** EA5404:03 From Icehouse to Greenhouse	

***Notes**:* Pink are core knowledge subjects, Grey are skills subjects, White are electives.

<table>
<tr><td colspan="5">Year 2 Take 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 rowspan="4"></td><td>Core units or Skills or Elective</td><td rowspan="4" colspan="3"></td></tr>
<tr><td>Elective</td></tr>
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***Notes**:* Timing of Electives are suggestion only