

RECOMMENDED STUDY PLAN

2022

DEGREE [Graduate Diploma of Science](#) STREAM [Environmental Earth Science \(ESS\)](#)

NAME _____ STUDENT NUMBER _____

Course information – Graduate Diploma of Science (GradDipSc)

This degree is structured such that students take sets of foundational ‘*knowledge*’ specific subjects to their major, technical and / or analytical ‘*skills*’ subjects, and *elective* subjects. Additionally all students take the core subject [SC5200](#) Professional Employability.

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 stream in the program is listed [here](#). When you are ready to enrol in subjects proceed to your eStudent account.

For more information relevant to the degree see the JCU Course handbook for the [Graduate Diploma 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. The following study plan is mirrored to the MSc Professional structure as a pathway towards completing that degree.

Environmental Earth Science Stream (2) structure

1. Take the 2 of the following **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 these **Skills** subjects:

- 2.1. [SC5200](#) Professional Employability (SP1 OR SP2)
AND
- 2.2. [EA5018](#) Field Studies in Tropical Land and Water Science (SP6)

AND take 1 additional skill subject from [List 1](#).

- For your stream we recommend [EA5330](#) Field Techniques OR [EA5044](#) Geological Mapping OR [EV5505](#) Introduction to GIS. Note that the co-requisite to EA5044 is EA5045. Together these subjects are designed to provide additional field experience for students.

3. Take 3 **Elective** subjects

See recommendations for your stream below.

Descriptions and availabilities of all subjects can be found online using the [Subject Search](#) tool. Use this 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 SP11 (November) a student can take both EV5502 and EA5640.

Please note that availability of some subjects sometimes changes. 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.

YOUR STUDY PLANNER

Fill in the cells below with your planned subjects. You can re-arrange when you take your skill and elective subjects depending 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 Study Period 1 (SP1) or Study Period 2 (SP2). Pink are core subjects.

February start

Year 1 Take 8 subjects (24 credit points) with approx. 4 subjects per 6 month Teaching Period

| Teaching Period 1 (January – June) | | | Teaching Period 2 (July – December) | |
|------------------------------------|--|--|--|---|
| SP 3 (Feb-Jun) | Study Period 1 (Feb-Jun) | SP 6 (May-Jul) SP 7 (Jun-Jul) | Study Period 2 (Jul-Nov) | SP 9 (Sept-Nov) SP 10 (Nov-Jan) SP 11 (Nov-Feb) |
| | Degree Core: <u>SC5200</u> Professional Employability – available SP1 & SP2 | Stream Core: <u>EA5018</u> Field Studies in Tropical Land and Water Science | Stream Option: <u>EA5017</u> Soil Properties and Processes - RECOMMENDED <i>see structure above for all options</i> | List 1 (Skills) or Elective |
| | Stream Option: <u>EA5016</u> Hydrology – RECOMMENDED <i>see structure above for all options</i> | | Elective: <u>EA5046</u> Earth and Environmental Geochemistry - RECOMMENDED | |
| | List 1 (Skills) or Elective | | Elective: <u>EA5404</u> From Icehouse to Greenhouse - RECOMMENDED | |

Notes: Blue are core knowledge subjects, Pink are skills subjects, White are electives. Timings of electives and skills subjects are suggestions.

July start

Year 1: Take 4 subjects (or 12 credit points) in teaching period 2.

| Teaching Period 2 (July – December) | |
|--|--|
| Study Period 2 (Jul-Nov) | SP 9 (Sept-Nov) SP 10 (Nov-Jan) SP 11 (Nov-Feb) |
| Stream Option: <u>EA5017</u> Soil Properties and Processes - RECOMMENDED <i>see structure above for all options</i> | List 1 (Skills) or Elective |
| Elective: <u>EA5046</u> Earth and Environmental Geochemistry - RECOMMENDED | |
| Elective: <u>EA5404</u> From Icehouse to Greenhouse - RECOMMENDED | |

Year 2: Take 12 credit points in teaching period 1.

| Teaching Period 1 (January – June) | | |
|------------------------------------|--|--|
| SP 3 (Feb-Jun) | Study Period 1 (Feb-Jun) | SP 6 (May-Jul) SP 7 (Jun-Jul) |
| | Degree Core: <u>SC5200</u> Professional Employability – available SP1 & SP2 | Stream Core: <u>EA5018</u> Field Studies in Tropical Land and Water Science |
| | Stream Option: <u>EA5016</u> Hydrology – RECOMMENDED <i>see structure above for all options</i> | |
| | List 1 (Skills) or Elective | |

List 1. Skill Subjects - Choose 1 subject

Ensure you check if the subject is available at your required campus Townsville (TSV) and / or Cairns (CNS). Most of these subjects have pre-requisite or co-requisite subjects. Make sure you check and have fulfilled that requirement.

| Study Period 3 (Feb-Jun) | Study Period 1 (Feb-Jun) | Study Period 6 (May-Jul) Study Period 7 (Jun-Jul) | Study Period 2 (Jul-Nov) | Study Period 9 (Sept-Nov) Study Period 10 (Nov-Jan) Study Period 11 (Nov-Feb) |
|--|---|---|--|--|
| <u>EV5020</u> Human Dimensions of Nature, Environment and Conservation | <u>BS5260</u> Modelling Ecological Dynamics | SP6 <u>EA5018</u> Field Studies in Tropical Land and Water Science | <u>BC5203</u> Advanced Bioinformatics | SP9 <u>EV5506</u> Remote Sensing |
| | <u>SC5202</u> Quantitative Methods in Science | SP6 <u>EA5044</u> Geological Mapping | <u>BZ5225</u> Technological Applications in Ecology | SP11 <u>EA5640</u> Advanced Marine Geoscience Technologies and Applications |
| | | SP7 <u>BZ5990</u> Toolkit for the Field Biologist | <u>BZ5450</u> Ecological and Conservation Genetics | SP11 <u>EV5502</u> Advanced Geographic Information Systems |
| | | SP7 <u>EA5045</u> Field Techniques in Geology | <u>CH5203</u> Analytical Chemistry (Advanced) | |
| | | SP7 <u>EA5330</u> Field Techniques | <u>EV5110</u> Environmental and Social Impact Assessment | |
| | | | <u>EV5505</u> Introduction to Geographic Information Systems | |
| | | | <u>MA5405</u> Data Mining | |
| | | | <u>SC5502</u> Design and Analyses in Ecological Studies | |

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.

| Subject | Study Period | Campus |
|---|--------------|---------------------|
| EV5020:03 Human Dimensions of Nature, Environment & Conservation | 3 | Cairns & Townsville |
| 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 |
| EV5701:03 Coastal and Marine Management and Conservation | 1 | Cairns & Townsville |
| EA5048:03 Minerals and Magmas | 1 | Townsville |
| EA5211:03 Structural Geology and Tectonics | 1 | Cairns & Townsville |
| EV5200:03 Natural Resource Management | 2 | Townsville |
| EA5046:03 Earth and Environmental Geochemistry | 2 | Cairns & Townsville |
| EA5650:03 Sedimentary Environments and Energy Resources | 2 | Townsville |
| EA5120:03 The Fossil Record: Dinosaurs and Vertebrates Through Time | 2 | 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 |
| EA5640:03 Advanced Marine Geoscience Technologies and Applications | 11 | Townsville |
| EV5404:03 Field Studies in Tropical Geography <i>Only taught in even-numbered years.</i> | 11 | Townsville |