



EVST13017 Catchment to Reef Management

Term 2 - 2022

Profile information current as at 06/05/2024 08:25 am

All details in this unit profile for EVST13017 have been officially approved by CQUniversity and represent a learning partnership between the University and you (our student). The information will not be changed unless absolutely necessary and any change will be clearly indicated by an approved correction included in the profile.

General Information

Overview

Catchment to Reef Management is a capstone unit in which you will synthesise the skills and knowledge developed in your degree to date. You will study how abiotic and biotic factors affect ecosystem development in the major regions of a catchment and examine anthropogenic issues in catchment management. During an extended field trip, you will work in teams to quantitatively and qualitatively examine and evaluate a Central Queensland catchment and then develop elements of a whole of catchment management plan. While planning and undertaking field work you will consider the role and needs of stakeholders, including Traditional Owners, Australian legislative and ethical requirements, and environmental and economic factors.

Details

Career Level: *Undergraduate*

Unit Level: *Level 3*

Credit Points: 6

Student Contribution Band: 8

Fraction of Full-Time Student Load: 0.125

Pre-requisites or Co-requisites

Students must successfully complete 96 credit points of study before undertaking this unit. Prerequisites: 96 credit points in an allied discipline (e.g. CV85, CU18, CC13 or other STEM courses).

Important note: Students enrolled in a subsequent unit who failed their pre-requisite unit, should drop the subsequent unit before the census date or within 10 working days of Fail grade notification. Students who do not drop the unit in this timeframe cannot later drop the unit without academic and financial liability. See details in the [Assessment Policy and Procedure \(Higher Education Coursework\)](#).

Offerings For Term 2 - 2022

- Mixed Mode

Attendance Requirements

All on-campus students are expected to attend scheduled classes – in some units, these classes are identified as a mandatory (pass/fail) component and attendance is compulsory. International students, on a student visa, must maintain a full time study load and meet both attendance and academic progress requirements in each study period (satisfactory attendance for International students is defined as maintaining at least an 80% attendance record).

Residential Schools

This unit has a Compulsory Residential School for distance mode students and the details are:

Click here to see your [Residential School Timetable](#).

Website

[This unit has a website, within the Moodle system, which is available two weeks before the start of term. It is important that you visit your Moodle site throughout the term. Please visit Moodle for more information.](#)

Class and Assessment Overview

Recommended Student Time Commitment

Each 6-credit Undergraduate unit at CQUniversity requires an overall time commitment of an average of 12.5 hours of study per week, making a total of 150 hours for the unit.

Class Timetable

[Regional Campuses](#)

Bundaberg, Cairns, Emerald, Gladstone, Mackay, Rockhampton, Townsville

[Metropolitan Campuses](#)

Adelaide, Brisbane, Melbourne, Perth, Sydney

Assessment Overview

1. **Learning logs / diaries / Journal / log books**

Weighting: 20%

2. **Research Assignment**

Weighting: 30%

3. **Portfolio**

Weighting: 50%

Assessment Grading

This is a graded unit: your overall grade will be calculated from the marks or grades for each assessment task, based on the relative weightings shown in the table above. You must obtain an overall mark for the unit of at least 50%, or an overall grade of 'pass' in order to pass the unit. If any 'pass/fail' tasks are shown in the table above they must also be completed successfully ('pass' grade). You must also meet any minimum mark requirements specified for a particular assessment task, as detailed in the 'assessment task' section (note that in some instances, the minimum mark for a task may be greater than 50%). Consult the [University's Grades and Results Policy](#) for more details of interim results and final grades.

CQUniversity Policies

All University policies are available on the [CQUniversity Policy site](#).

You may wish to view these policies:

- Grades and Results Policy
- Assessment Policy and Procedure (Higher Education Coursework)
- Review of Grade Procedure
- Student Academic Integrity Policy and Procedure
- Monitoring Academic Progress (MAP) Policy and Procedure – Domestic Students
- Monitoring Academic Progress (MAP) Policy and Procedure – International Students
- Student Refund and Credit Balance Policy and Procedure
- Student Feedback – Compliments and Complaints Policy and Procedure
- Information and Communications Technology Acceptable Use Policy and Procedure

This list is not an exhaustive list of all University policies. The full list of University policies are available on the [CQUniversity Policy site](#).

Unit Learning Outcomes

On successful completion of this unit, you will be able to:

1. Differentiate the ecology of the major regions within a catchment system
2. Articulate the major drivers of issues in catchment management
3. Critically explain ecosystem structure and abiotic changes along the length of a catchment system
4. Evaluate current catchment management programs and practices
5. Plan and complete elements of a whole of catchment survey
6. Assess disturbances caused by natural and anthropogenic processes within a catchment system
7. Develop elements of a whole of catchment management plan that considers environmental and economic factors, Australian legislative frameworks, community stakeholders and traditional knowledge.

Not applicable.

Alignment of Learning Outcomes, Assessment and Graduate Attributes



Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes						
	1	2	3	4	5	6	7
1 - Research Assignment - 30%	•	•	•	•			
2 - Learning logs / diaries / Journal / log books - 20%					•	•	
3 - Portfolio - 50%			•	•	•	•	•

Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes						
	1	2	3	4	5	6	7
1 - Communication	•	•	•	•			•
2 - Problem Solving	•					•	
3 - Critical Thinking			•	•			
4 - Information Literacy	•	•	•			•	•
5 - Team Work					•	•	•
6 - Information Technology Competence	•						•
7 - Cross Cultural Competence					•		•
8 - Ethical practice					•		•

Graduate Attributes	Learning Outcomes						
	1	2	3	4	5	6	7
9 - Social Innovation							•
10 - Aboriginal and Torres Strait Islander Cultures							

Alignment of Assessment Tasks to Graduate Attributes

Assessment Tasks	Graduate Attributes									
	1	2	3	4	5	6	7	8	9	10
1 - Research Assignment - 30%	•	•	•	•		•				
2 - Learning logs / diaries / Journal / log books - 20%		•		•	•		•	•		
3 - Portfolio - 50%	•	•	•	•	•	•	•	•	•	

Textbooks and Resources

Textbooks

There are no required textbooks.

IT Resources

You will need access to the following IT resources:

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)

Referencing Style

All submissions for this unit must use the referencing style: [Harvard \(author-date\)](#)
For further information, see the Assessment Tasks.

Teaching Contacts

Andrew Irving Unit Coordinator
a.irving@cqu.edu.au

Schedule

Week 1 - 11 Jul 2022

Module/Topic	Chapter	Events and Submissions/Topic
Unit overview		
• What are catchments?		
• Multiple users, multiple needs		

Week 2 - 18 Jul 2022

Module/Topic	Chapter	Events and Submissions/Topic
Profile of a catchment <ul style="list-style-type: none"> • Water & geology • Physical, chemical, & biological characteristics 		

Week 3 - 25 Jul 2022

Module/Topic	Chapter	Events and Submissions/Topic
RESIDENTIAL SCHOOL 26th - 29th July **No lectures will run this week**		

Week 4 - 01 Aug 2022

Module/Topic	Chapter	Events and Submissions/Topic
Catchment Issues <ul style="list-style-type: none"> • Modification of flow • Algae and algal blooms - A/Prof. Larelle Fabbro, guest lecture 		Field data logs and observation notebook Due: Week 4 Monday (1 Aug 2022) 11:45 pm AEST

Week 5 - 08 Aug 2022

Module/Topic	Chapter	Events and Submissions/Topic
Catchment issues <ul style="list-style-type: none"> • Sedimentation • Nutrients & Eutrophication 		

Vacation Week - 15 Aug 2022

Module/Topic	Chapter	Events and Submissions/Topic
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Week 6 - 22 Aug 2022

Module/Topic	Chapter	Events and Submissions/Topic
Catchment issues <ul style="list-style-type: none"> • Over-fishing • Coastal and reef impacts 		

Week 7 - 29 Aug 2022

Module/Topic	Chapter	Events and Submissions/Topic
Guest lectures: Dr Megan Ellis - Gladstone Ports Corporation Dr Adam Rose - "Slow The Flow"		Catchment Health Report Card Due: Week 7 Friday (2 Sept 2022) 11:45 pm AEST

Week 8 - 05 Sep 2022

Module/Topic	Chapter	Events and Submissions/Topic
Catchment solutions <ul style="list-style-type: none"> • Managing Flow • Over-fishing & Aquaculture 		

Week 9 - 12 Sep 2022

Module/Topic	Chapter	Events and Submissions/Topic
Catchment solutions <ul style="list-style-type: none"> • Detecting the Problems part 1 - Adequacy of Sampling • Detecting the Problems part 2 - Impact Assessment 		

Week 10 - 19 Sep 2022

Module/Topic	Chapter	Events and Submissions/Topic
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Guest lectures:**Dr Leigh Stitz - Fitzroy****Partnership for River Health****Dr Julie Malan - Carbon Link****Week 11 - 26 Sep 2022**

Module/Topic	Chapter	Events and Submissions/Topic
Catchment Management <ul style="list-style-type: none">• The DPSWR Framework• What's in the Future for Catchment Management?		

Week 12 - 03 Oct 2022

Module/Topic	Chapter	Events and Submissions/Topic
Unit Readings		

Review/Exam Week - 10 Oct 2022

Module/Topic	Chapter	Events and Submissions/Topic
		Catchment Management Plan Due: Review/Exam Week Friday (14 Oct 2022) 11:45 pm AEST

Exam Week - 17 Oct 2022

Module/Topic	Chapter	Events and Submissions/Topic
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Term Specific Information

This unit will comprise a weekly series of live online content and guest lectures, as well as a compulsory 4-day residential school. The residential school will involve considerable travel over land and sea associated with the Fitzroy River Catchment, and will involve a healthy amount of field work. The residential school will be essential to your ability to successfully complete the assessment components of the unit.

Assessment Tasks

1 Field data logs and observation notebook

Assessment Type

Learning logs / diaries / Journal / log books

Task Description

You are required to submit a copy of your field data log and observation notebook based on the activities completed during the residential school. Your log book needs to be an accurate daily account of the activities you have completed, any data obtained (including traceable records such as GPS points), observations made, and people you have interacted with for your research purposes. Importantly, the log book needs to be signed and dated by an independent person who can attest to its veracity (this will be one of your fellow students for your residential school). You will be using your log book as the foundation for the remaining assessment pieces for the unit, so keeping an excellent record of activities is going to help you to complete your remaining assessments to a high standard. There is no word limit for this assessment. You will need to submit copies of your log book shortly after finishing the residential school.

Assessment Due Date

Week 4 Monday (1 Aug 2022) 11:45 pm AEST

Please submit your work through Moodle as either scanned copies of your notes or photographs of your notes embedded into Word or Powerpoint in their correct order.

Return Date to Students

Vacation Week Monday (15 Aug 2022)

This marked assessment will be returned through Moodle.

Weighting

20%

Minimum mark or grade

50%

Assessment Criteria

Your field data log and observation notebook will be marked against the following criteria:

- Presentation of a clear and accurate daily record of activities (40 %)
- Presentation of a clear record of the raw data you have collected, as well as other field observations (e.g. qualitative, anecdotal) (40 %)
- Presentation of any interpretive notes and other important relevant information (e.g. GPS points, equipment used, contact names and organisations worked with) (10 %)
- Having your log book verified by an independent person each day (10 %)

Referencing Style

- [Harvard \(author-date\)](#)

Submission

Online

Submission Instructions

Please submit your work through Moodle as either scanned copies of your notes or photographs of your notes embedded into Word or Powerpoint in their correct order.

Learning Outcomes Assessed

- Plan and complete elements of a whole of catchment survey
- Assess disturbances caused by natural and anthropogenic processes within a catchment system

Graduate Attributes

- Problem Solving
- Information Literacy
- Team Work
- Cross Cultural Competence
- Ethical practice

2 Catchment Health Report Card

Assessment Type

Research Assignment

Task Description

For this assessment, you are required to produce a Catchment Health Report Card based on the data and information you have gathered during the residential school. Your report card should be in the format of a brochure/pamphlet, which presents, at least, the relevant processed data (graphs, tables etc.) and their associated high-level conclusions, along with appropriate justification and background information that explains the purpose of the report card. Your report card is to be no longer than three A4 pages. The Fitzroy Basin Report Card (discussed during term) will be a useful guide for this assessment.

Assessment Due Date

Week 7 Friday (2 Sept 2022) 11:45 pm AEST

Please submit your work as either a Word, Powerpoint, or PDF file via Moodle.

Return Date to Students

Week 9 Friday (16 Sept 2022)

This marked assessment will be returned through Moodle.

Weighting

30%

Minimum mark or grade

50%

Assessment Criteria

Your assessment will be marked against the following criteria:

- Appropriate and succinct background information needed to interpret your report card (10 %)
- Clear presentation of relevant processed data and summary findings (30 %)
- Reasoned and justified interpretation of your data in the context of river/catchment health, including a succinct report card grade (30 %)

- Consistent and engaging formatting, including diagrams/photographs where appropriate (10 %)
- Correct presentation of reference list (including in-text citations) (10 %)
- Correct spelling and grammar (10 %)

Referencing Style

- [Harvard \(author-date\)](#)

Submission

Online

Submission Instructions

Please submit your work as either a Word, Powerpoint, or PDF file via Moodle.

Learning Outcomes Assessed

- Differentiate the ecology of the major regions within a catchment system
- Articulate the major drivers of issues in catchment management
- Critically explain ecosystem structure and abiotic changes along the length of a catchment system
- Evaluate current catchment management programs and practices

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Information Technology Competence

3 Catchment Management Plan

Assessment Type

Portfolio

Task Description

Your task for this assessment is to prepare an in-depth catchment management plan for the area sampled during the residential school. Your plan must include a background to the broad environmental conditions of the catchment, including contemporary use and current issues/conflicts. The core of the plan is the identification of key issues that affect the sustainable management of the catchment (both aquatic and adjacent terrestrial environments), and to propose reasoned solutions that support a sustainable future for the environment and the varied stakeholders that depend upon it. These should be based both on the class data collected at the residential school, as well as your broader readings & data searches. The benefits of your proposed catchment management plan must be explained in terms of environmental outcomes, sustainable economic use and development, societal well-being (including Traditional Owners and practices), and meeting State and Federal legislative requirements. You are encouraged to refer to relevant report cards to support your work, including your own produced in assessment 2, as well as those produced by other entities (e.g. Gladstone Healthy Harbour Partnership, Fitzroy Basin Association, etc.). There is a limit of 3000 words for this assessment.

Assessment Due Date

Review/Exam Week Friday (14 Oct 2022) 11:45 pm AEST

Please submit your assessment as a Word document through Moodle. No PDF files will be accepted.

Return Date to Students

Exam Week Friday (21 Oct 2022)

Marked assessments will be returned through Moodle.

Weighting

50%

Minimum mark or grade

50%

Assessment Criteria

Your catchment management plan will be assessed against the following criteria:

- An executive summary identifying the key messages (particularly the identified problems and their solutions) of your catchment management plan (20 %)
- A clear and concise summary of background information for the catchment area (10 %)
- An in-depth description of the range of stakeholder interests and contemporary issues associated with the catchment (25 %)

- A discussion that justifies your proposed solutions to maintain/improve environmental and stakeholder sustainability within the catchment (25 %)
- Engaging formatting and presentation, including appropriate use of tables, figures, and photographs (5 %)
- Clear communication of your ideas, with correct spelling and grammar (5 %)
- A reference list of appropriate literature and information sources cited within the text of your report (5 %)
- Within word limits (3000 words +/-10 %) (5 %)

Referencing Style

- [Harvard \(author-date\)](#)

Submission

Online

Submission Instructions

Please submit your assessment as a Word document through Moodle. No PDF files will be accepted.

Learning Outcomes Assessed

- Critically explain ecosystem structure and abiotic changes along the length of a catchment system
- Evaluate current catchment management programs and practices
- Plan and complete elements of a whole of catchment survey
- Assess disturbances caused by natural and anthropogenic processes within a catchment system
- Develop elements of a whole of catchment management plan that considers environmental and economic factors, Australian legislative frameworks, community stakeholders and traditional knowledge.

Graduate Attributes

- Communication
- Problem Solving
- Critical Thinking
- Information Literacy
- Team Work
- Information Technology Competence
- Cross Cultural Competence
- Ethical practice
- Social Innovation

Academic Integrity Statement

As a CQUniversity student you are expected to act honestly in all aspects of your academic work.

Any assessable work undertaken or submitted for review or assessment must be your own work. Assessable work is any type of work you do to meet the assessment requirements in the unit, including draft work submitted for review and feedback and final work to be assessed.

When you use the ideas, words or data of others in your assessment, you must thoroughly and clearly acknowledge the source of this information by using the correct referencing style for your unit. Using others' work without proper acknowledgement may be considered a form of intellectual dishonesty.

Participating honestly, respectfully, responsibly, and fairly in your university study ensures the CQUniversity qualification you earn will be valued as a true indication of your individual academic achievement and will continue to receive the respect and recognition it deserves.

As a student, you are responsible for reading and following CQUniversity's policies, including the [Student Academic Integrity Policy and Procedure](#). This policy sets out CQUniversity's expectations of you to act with integrity, examples of academic integrity breaches to avoid, the processes used to address alleged breaches of academic integrity, and potential penalties.

What is a breach of academic integrity?

A breach of academic integrity includes but is not limited to plagiarism, self-plagiarism, collusion, cheating, contract cheating, and academic misconduct. The Student Academic Integrity Policy and Procedure defines what these terms mean and gives examples.

Why is academic integrity important?

A breach of academic integrity may result in one or more penalties, including suspension or even expulsion from the University. It can also have negative implications for student visas and future enrolment at CQUniversity or elsewhere. Students who engage in contract cheating also risk being blackmailed by contract cheating services.

Where can I get assistance?

For academic advice and guidance, the [Academic Learning Centre \(ALC\)](#) can support you in becoming confident in completing assessments with integrity and of high standard.

What can you do to act with integrity?



Be Honest

If your assessment task is done by someone else, it would be dishonest of you to claim it as your own



Seek Help

If you are not sure about how to cite or reference in essays, reports etc, then seek help from your lecturer, the library or the Academic Learning Centre (ALC)



Produce Original Work

Originality comes from your ability to read widely, think critically, and apply your gained knowledge to address a question or problem