EVST19023 *Water Resource Management*
Term 1 - 2024

Profile information current as at 12/05/2024 01:52 pm

General Information

Overview
On completion of this unit, you will have an understanding of the basic relationships between catchment health, water quality and ecosystem health in receiving waters. You will be able to explain the major threats to water quality and the ways to monitor and manage those threats through the monitoring of physical, chemical and biological parameters and through the preparation of water quality assessment plans. You must attend a compulsory residential school as part of this unit.

Details
Career Level: *Undergraduate*
Unit Level: *Level 2*
Credit Points: *6*
Student Contribution Band: *8*
Fraction of Full-Time Student Load: *0.125*

Pre-requisites or Co-requisites
Prerequisite: 24 credit points.
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 1 - 2024

- 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. **Practical Assessment**
Weighting: Pass/Fail
2. **Practical and Written Assessment**
Weighting: 30%
3. **Written Assessment**
Weighting: 35%
4. **Online Test**
Weighting: 35%

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.

Previous Student Feedback

Feedback, Recommendations and Responses

Every unit is reviewed for enhancement each year. At the most recent review, the following staff and student feedback items were identified and recommendations were made.

Feedback from Student feedback (unrecorded, verbal) and direct evidence of assessment completion rates.

Feedback

Water Resource Management Plan assessment item was hard to complete.

Recommendation

Update weekly tutorial to include Q&A feedback and demonstrations on how to start and complete aspects of the assignment e.g. how to fill out the risk assessment form (examples but no answers to be provided).

Feedback from SUTE

Feedback

Improve organisation of learning material.

Recommendation

Review order of weekly content. Typically, content is made available a few weeks in advance so students can access important information to complete aspects of their assignments, etc. However, we are confined by the timing of holidays and the intensive residential school period as to when and how this content is delivered.

Unit Learning Outcomes

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

1. Describe the basic relationships between catchment health, water quality and end of catchment health
2. Describe the major threats to instream and coastal water quality and the effects of land based pollutants on ecosystem health
3. Explain the important physico-chemical and biological indicators of water quality and their application
4. Discuss different management strategies to reduce diffuse and point source pollutants
5. Apply appropriate standards and national guidelines, interpret data and results when designing a water quality assessment plan
6. Work with others to assess water quality and ecosystem health in aquatic systems.

Alignment of Learning Outcomes, Assessment and Graduate Attributes

— N/A Level | • Introductory Level | • Intermediate Level | • Graduate Level | ◦ Professional Level | ◦ Advanced Level

Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes					
	1	2	3	4	5	6
1 - Written Assessment - 35%			•	•	•	•
2 - Practical and Written Assessment - 30%	•	•	•	•	•	
3 - Practical Assessment - 0%						•
4 - Online Test - 35%	•	•	•	•		

Alignment of Graduate Attributes to Learning Outcomes

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

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)
- Word processing software such as MS Word

Referencing Style

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

Teaching Contacts

Alex Kenins Unit Coordinator
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Schedule

Week 1 - 04 Mar 2024

Module/Topic	Chapter	Events and Submissions/Topic
Week 1. Study Guide. Water as a Resource		

Week 2 - 11 Mar 2024

Module/Topic	Chapter	Events and Submissions/Topic
Week 2. Study Guide. Physical and chemical properties of water.		

Week 3 - 18 Mar 2024

Module/Topic	Chapter	Events and Submissions/Topic
Week 3. Study Guide. Water pollutants and their sources.		

Week 4 - 25 Mar 2024

Module/Topic	Chapter	Events and Submissions/Topic
Week 4. Study Guide. Microbiology of water.		

Week 5 - 01 Apr 2024

Module/Topic	Chapter	Events and Submissions/Topic
Week 5. Study Guide. Water treatment.		

Vacation Week - 08 Apr 2024

Module/Topic	Chapter	Events and Submissions/Topic

Week 6 - 15 Apr 2024

Module/Topic	Chapter	Events and Submissions/Topic
		RESIDENTIAL SCHOOL
Week 6. Study Guide. Wastewater treatment.		**Competency Assessment** Due: Week 6 Monday (15 Apr 2024) 11:45 pm AEST

Week 7 - 22 Apr 2024

Module/Topic	Chapter	Events and Submissions/Topic
Week 7. Study Guide. Project design, monitoring, quality assurance and reporting.		

Week 8 - 29 Apr 2024

Module/Topic	Chapter	Events and Submissions/Topic
Week 8. Study Guide. Water quality standards, quality assurance and quality control.		**Residential School Report** Due: Week 8 Friday (3 May 2024) 11:30 pm AEST

Week 9 - 06 May 2024

Module/Topic	Chapter	Events and Submissions/Topic
Week 9. Study Guide. Integrated habitat assessment.		

Week 10 - 13 May 2024

Module/Topic	Chapter	Events and Submissions/Topic
Week 10. Study Guide. Management of water resources.		**Water Management Plan** Due: Week 10 Friday (17 May 2024) 11:30 pm AEST

Week 11 - 20 May 2024

Module/Topic	Chapter	Events and Submissions/Topic
Week 11. Study Guide. Catchment management.		

Week 12 - 27 May 2024

Module/Topic	Chapter	Events and Submissions/Topic
Examination Review		

Review/Exam Week - 03 Jun 2024

Module/Topic	Chapter	Events and Submissions/Topic
		End of Term Online Test Due: Review/Exam Week Thursday (6 June 2024) 1:15 pm AEST

Exam Week - 10 Jun 2024

Module/Topic	Chapter	Events and Submissions/Topic

Assessment Tasks

1 Competency Assessment

Assessment Type
Practical Assessment

Task Description
You are required to collect field samples according to protocols and correctly complete a Chain of Custody Form that would be required in order to legally send these samples to a laboratory for further analysis. This task is completed at the compulsory Residential School. This is a Pass/Fail task.

Assessment Due Date
Week 6 Monday (15 Apr 2024) 11:45 pm AEST
Completed during Residential School.

Return Date to Students

Returned to students during Residential School.

Weighting
Pass/Fail

Assessment Criteria
You will be assessed on the use of correct sampling protocols, completeness, correct reference to samples collected and readability of the Chain of
Custody Form completed at the Residential School. This is a Pass/Fail Task.

Referencing Style

- Harvard (author-date)

Submission
Offline

Learning Outcomes Assessed

- Work with others to assess water quality and ecosystem health in aquatic systems.

2 Residential School Report

Assessment Type
Practical and Written Assessment

Task Description
There will be a practical and written component to this assessment. You will be required to complete a report sheet based on the residential school activities.
A template with the information required and the questions that need to be answered will be provided on the Moodle site.

Assessment Due Date
Week 8 Friday (3 May 2024) 11:30 pm AEST

Return Date to Students

Assessments will be returned within 14 days of being submitted.

Weighting
30%

Minimum mark or grade
50%

Assessment Criteria
The ability to perform laboratory and field tasks in addition to correctly answering questions on these is the basis of completing the Residential School Report.
The report will be assessed on the completeness and correctness of the answers.

Referencing Style

- Harvard (author-date)

Submission
Online

Submission Instructions
You will be required to perform the practical exercises during the residential school and will need to upload an electronic copy of the report sheet as a Word document as well as any additional Excel files into Moodle.

Learning Outcomes Assessed

- Describe the basic relationships between catchment health, water quality and end of catchment health
- Describe the major threats to instream and coastal water quality and the effects of land based pollutants on ecosystem health
- Explain the important physico-chemical and biological indicators of water quality and their application
- Discuss different management strategies to reduce diffuse and point source pollutants

- Apply appropriate standards and national guidelines, interpret data and results when designing a water quality assessment plan

3 Water Management Plan

Assessment Type
Written Assessment

Task Description
Design a monitoring plan for the waterway that is described in detail on the Moodle site. Identify the environmental stressors present in the system and discuss the field parameters and laboratory analyses that are relevant to them. Mention any health and safety issues that may be associated with the specific waterway. Complete the risk assessment that would also accompany this plan.

Assessment Due Date
Week 10 Friday (17 May 2024) 11:30 pm AEST

Return Date to Students

Assessments will be returned within 14 days of being submitted.

Weighting
35%

Minimum mark or grade
50%

Assessment Criteria
Discussion of the environmental values and water quality issues (35%)
Appropriate choice of parameters and analyses and reasons for their selection (40%)
Appropriate safety procedures covered in the Risk Assessment (10%)
Clear writing style in correct English, accurate referencing, appropriate length and format (15%)

Referencing Style

- Harvard (author-date)

Submission
Online

Learning Outcomes Assessed

- Explain the important physico-chemical and biological indicators of water quality and their application
- Discuss different management strategies to reduce diffuse and point source pollutants
- Apply appropriate standards and national guidelines, interpret data and results when designing a water quality assessment plan
- Work with others to assess water quality and ecosystem health in aquatic systems.

4 End of Term Online Test

Assessment Type
Online Test

Task Description
The online quiz/test is an assessment for EVST19023 and covers content you have studied within weeks 1 to 12. You will only be allowed 1 attempt at this assessment. This assessment has seven questions worth 15 marks each. The total marks allocated to this assessment item is 105. It contributes 35% of your final grade.

Assessment Due Date
Review/Exam Week Thursday (6 June 2024) 1:15 pm AEST
The online test opens Thursday 6 June at 10:00am AEST for 3 hours (plus 15 min. perusal time).

Return Date to Students

Results will be returned within 14 days.

Weighting
35%

Minimum mark or grade
50%

Assessment Criteria
The end of term online assessment will be assessed with respect to the completeness and correctness of the answers.

Referencing Style

- Harvard (author-date)

Submission
Online

Learning Outcomes Assessed

- Describe the basic relationships between catchment health, water quality and end of catchment health
- Describe the major threats to instream and coastal water quality and the effects of land based pollutants on ecosystem health
- Explain the important physico-chemical and biological indicators of water quality and their application
- Discuss different management strategies to reduce diffuse and point source pollutants

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