



# HLTH13031 *Population Health Epidemiology*

## Term 3 - 2024

Profile information current as at 16/07/2025 05:17 am

All details in this unit profile for HLTH13031 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

This unit explores the importance and role of epidemiology as an approach to both public health and clinical practice. You will be able to use evidence from epidemiological investigations, to understand the distribution of health outcomes in populations and understand the influence of factors that determine this distribution. The critical function of epidemiology will be reviewed including areas of anticipated needs, identified risk conditions, definition of priorities and the use of available resources for planning and administering health care services.

#### 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

Prereq: 72 credit points (any tertiary level units)

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 3 - 2024

- Online

#### 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).

#### 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. **Poster Sessions**

Weighting: 25%

#### 2. **Online Quiz(zes)**

Weighting: 25%

#### 3. **Written Assessment**

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](#).

## 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 Observation, feedback from Unit Coordinator.

**Feedback**

Attendance at tutorials continues to be low.

**Recommendation**

Consider greater structure to the tutorials.

#### Feedback from Feedback from Unit Coordinator

**Feedback**

Material needs revision.

**Recommendation**

Consider revising material for future offerings.

## Unit Learning Outcomes

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

1. Calculate and communicate epidemiological statistics relating to the measurement of health, wellness and disease.
2. Interpret epidemiological data within theories and frameworks of social justice and cultural diversity for effective knowledge transfer and exchange.
3. Evaluate epidemiological investigations and sources of epidemiological data to identify inequities, enable change and advocate for health.
4. Argue for a population health outcome using relevant research methods and approaches.
5. Explain principles of data confidentiality and disclosure, and apply the ethical use of data.

## Alignment of Learning Outcomes, Assessment and Graduate Attributes

 N/A Level	 Introductory Level	 Intermediate Level	 Graduate Level	 Professional Level	 Advanced Level
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### Alignment of Assessment Tasks to Learning Outcomes

Assessment Tasks	Learning Outcomes				
	1	2	3	4	5
1 - Poster Sessions - 25%	•	•			
2 - Online Quiz(zes) - 25%			•	•	•
3 - Written Assessment - 50%	•	•	•	•	•

### Alignment of Graduate Attributes to Learning Outcomes

Graduate Attributes	Learning Outcomes				
	1	2	3	4	5
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

HLTH13031

#### Prescribed

##### **Essential Epidemiology: An introduction for students and health professionals**

Edition: 4 (2020)

Authors: Penelope Webb, Chris Bain, & Andrew Page

Cambridge University Press

ISBN: 1-108-76680-3

Binding: Paperback

#### **Additional Textbook Information**

This textbook is available electronically through the CQUniversity Library. Students do not need to purchase the text.

### IT Resources

#### **You will need access to the following IT resources:**

- CQUniversity Student Email
- Internet
- Unit Website (Moodle)
- Zoom access: microphone and webcam required

## Referencing Style

#### **All submissions for this unit must use the referencing styles below:**

- [Harvard \(author-date\)](#)
- [American Psychological Association 7th Edition \(APA 7th edition\)](#)

For further information, see the Assessment Tasks.

## Teaching Contacts

**Lisa Bricknell** Unit Coordinator

[l.bricknell@cqu.edu.au](mailto:l.bricknell@cqu.edu.au)

## Schedule

### **Week 1: Introduction to Population Health & Epidemiology - 04 Nov 2024**

Module/Topic	Chapter	Events and Submissions/Topic
<b>Tutorial:</b> Orientation to the unit <ul style="list-style-type: none"><li>• Assessment</li><li>• Academic integrity and AI</li><li>• Student wellbeing</li></ul>	See eReading list on the Moodle site	

### **Week 2: Measuring the health of the population - 11 Nov 2024**

Module/Topic	Chapter	Events and Submissions/Topic
<b>Tutorial:</b> Basic measures in epidemiology part A <ul style="list-style-type: none"><li>• Morbidity and mortality</li><li>• Incidence and prevalence</li><li>• Rates</li></ul>	See eReading list on the Moodle site	<b>Assessment 2:</b> Quiz on week 1 learning material due Monday (Weighting: 5%)

### **Week 3: Descriptive Epidemiology Part 1 - 18 Nov 2024**

Module/Topic	Chapter	Events and Submissions/Topic
<b>Tutorial:</b> Basic measures in epidemiology part B <ul style="list-style-type: none"> <li>• Probability and inference</li> <li>• Relative risk</li> <li>• Odds ratios</li> </ul>	See eReading list on the Moodle site	<b>Assessment 2:</b> Quiz on week 2 learning material due Monday (Weighting: 5%)

#### Week 4: Descriptive Epidemiology Part 2 - 25 Nov 2024

Module/Topic	Chapter	Events and Submissions/Topic
<b>Tutorial:</b> Monitoring population health - Indicators vs outcomes		<b>Assessment 2:</b> Quiz on week 3 learning material due Monday (Weighting: 5%)

#### Week 5: Measures and interpretation of association and causality - 02 Dec 2024

Module/Topic	Chapter	Events and Submissions/Topic
<b>Tutorial:</b> Association vs Causation in population health epidemiology	See eReading list on the Moodle site	<b>Assessment 2:</b> Quiz on week 4 learning material due Monday (Weighting: 5%)

#### Week 6: Analytic Epidemiology Part 1 - 09 Dec 2024

Module/Topic	Chapter	Events and Submissions/Topic
<b>Tutorial:</b> How different study designs answer different questions	See eReading list on the Moodle site	<b>Assessment 2:</b> Quiz on week 5 learning material due Monday (Weighting: 5%)

#### Week 7: Analytic Epidemiology Part 2 - 16 Dec 2024

Module/Topic	Chapter	Events and Submissions/Topic
<b>Tutorial:</b> Descriptive, Analytical and Experimental studies - Ethical issues	See eReading list on the Moodle site	<b>Assessment 1: Poster</b> Due: Week 7 Friday (20 Dec 2024) 11:59 pm AEST

#### Vacation Week - 23 Dec 2024

Module/Topic	Chapter	Events and Submissions/Topic
No tutorial during mid-term break		

#### Vacation Week - 30 Dec 2024

Module/Topic	Chapter	Events and Submissions/Topic
No tutorial during mid-term break		

#### Week 8: Experimental Studies - 06 Jan 2025

Module/Topic	Chapter	Events and Submissions/Topic
<b>Tutorial:</b> Descriptive, Analytical and Experimental studies – absence, bias and silences	See eReading list on the Moodle site	

#### Week 9: Critical Appraisal of Epidemiological Studies - 13 Jan 2025

Module/Topic	Chapter	Events and Submissions/Topic
<b>Tutorial:</b> Evidence synthesis part A – asking clear questions	See eReading list on the Moodle site	

#### Week 10: Epidemiology of Social Determinants of Health - 20 Jan 2025

Module/Topic	Chapter	Events and Submissions/Topic
<b>Tutorial:</b> Evidence synthesis part B – reporting your results – person, place and time matters!	See eReading list on the Moodle site	

#### Week 11: Population Health Interventions - 27 Jan 2025

Module/Topic	Chapter	Events and Submissions/Topic
<b>Tutorial:</b> The Big Ask – your grant proposal	See eReading list on the Moodle site	

## Week 12: Epidemiology in Practice - 03 Feb 2025

Module/Topic	Chapter	Events and Submissions/Topic
<b>Tutorial:</b> What works, what does not and why not in population health epidemiology	See eReading list on the Moodle site	<b>Assessment 3: Funding Application</b> Due: Week 12 Friday (7 Feb 2025) 11:59 pm AEST
<b>Exam Week - 10 Feb 2025</b>		
Module/Topic	Chapter	Events and Submissions/Topic
No tutorial		

## Term Specific Information

In this unit, students are permitted to utilise generative AI tools to enhance their learning and creativity. However, it is imperative to use these tools with integrity. This means:

- **Acknowledging AI Assistance:** Clearly indicate when and how AI tools have been used in your work.
- **Originality:** Ensure that your submissions reflect your own understanding and effort. AI tools should support, not replace, your critical thinking and creativity.
- **Ethical Use:** Do not use AI to generate content that misrepresents your abilities or knowledge. **Plagiarism, even with AI-generated content, is strictly prohibited.**
- **Respect for Guidelines:** Follow all academic guidelines and policies regarding the use of AI tools in your coursework.

By adhering to these principles, you contribute to a fair and honest academic environment that values genuine learning and integrity. **Use of generative AI outside of these guidelines may be considered to be a breach of academic integrity, which will be officially reported and acted upon.**

*This statement was developed with assistance from Microsoft Copilot.*

## Assessment Tasks

### 1 Assessment 1: Poster

#### Assessment Type

Poster Sessions

#### Task Description

In your professional life, you will apply your knowledge of epidemiology to describe the impact of health outcomes, the patterns of disease, or the risks of a particular outcome in your work with clients, collaborators, or the general public. This assessment is a practical application of that.

In this assessment, you are asked to research, create, and develop a poster, suitable for presentation at an academic conference, that describes the population health impact of a health outcome that is of importance to the Australian population. Using appropriate measures, you must source, interpret and communicate the current epidemiological evidence. The audience for your poster will be health policymakers, health planners from the Department of Health, academics and researchers, and other health professionals.

Your poster needs to include:

- A clear introduction to the health issue that provides a clear definition and justification of why it is important.
- The use of a range of appropriate epidemiological measures to critically demonstrate the impact this health issue has on:
  - The Australian population as a whole and
  - Within or between different population groups of relevance (differential impact). For example, age, gender, geographic location, occupation
- The use of data visualization that contributes to the effective communication of the issue.
- A clear and concise conclusion that links to the introduction and the contents of the poster.

The topic you choose is up to you, but it must be a health issue that is important to public health in the Australian

context. You are encouraged to discuss your choice of topic with your lecturer. ***This is a poster submission assessment only. There is no presentation.***

**Assessment Due Date**

Week 7 Friday (20 Dec 2024) 11:59 pm AEST

**Return Date to Students**

Week 9 Friday (17 Jan 2025)

**Weighting**

25%

**Minimum mark or grade**

50%

**Assessment Criteria****Relevance (30%)**

- Alignment of selected topic to assignment question
- Use of epidemiological measures to critically demonstrate the impact the health issue has on the Australian population and identified at-risk groups
- Use of original data visualisations that are relevant to the epidemiological measure, the health issue, the audience and the poster format
- Factual accuracy
- Connections between content and evidence

**Validity (40%)**

- Depth and extent of research and analysis
- Strength and cohesion of justification of importance of the issue to public health
- Quality of communication
- Quality of visualisations
- Originality of the poster content
- Depth and extent of evidence used

**Organisation (20%)**

- Consideration of required components of the assigned task
- Structure and flow of information
- Coherence and clarity of expression (including spelling, grammar, syntax)
- Suitability of design for intended audience and setting

**Presentation (10%)**

- Quality of design
- Style and formatting in accordance with required academic standards
- Typographical matters
- Referencing protocols
- Length

**Referencing Style**

- [Harvard \(author-date\)](#)
- [American Psychological Association 7th Edition \(APA 7th edition\)](#)

**Submission**

Online

**Learning Outcomes Assessed**

- Calculate and communicate epidemiological statistics relating to the measurement of health, wellness and disease.
- Interpret epidemiological data within theories and frameworks of social justice and cultural diversity for effective knowledge transfer and exchange.

## 2 Assessment 2: Quizzes

**Assessment Type**

Online Quiz(zes)



**Task Description**

Assessment 2 is a series of quizzes that you will complete individually. Each quiz consists of multiple-choice questions. There are five quizzes in total, each worth 5%. You will complete one quiz every week from Week 2 to Week 6. Each quiz covers the materials that you learned in the previous week. For example, the quiz due in Week 2 assesses the materials that you learned in Week 1, the quiz due in Week 3 assesses the materials that you covered in Week 2, and so on.

Each quiz will have five multiple-choice questions from a question. You must choose the correct answer. You will have 15 minutes to complete each quiz and you cannot pause it. You will only have one attempt to complete each quiz, so it's important to have a reliable internet connection when taking the quiz.

You may use a cheat sheet with formulas and a simple calculator to assist you. The quiz will be available from 00:00 hours on Monday of each week until 23:59 hours on Monday of the following week. For example, the quiz for week 2 will be available from Monday of week 1 and will remain open until Monday of week 2 at 23:59. You will receive your score after the quiz has closed and all deferred quizzes have been completed. You will be shown which questions you answered correctly or incorrectly, with feedback to help you identify the areas that you need to revise.

**STUDENTS MUST NOT USE GENERATIVE AI TO COMPLETE THESE QUIZZES****Number of Quizzes**

5

**Frequency of Quizzes**

Weekly

**Assessment Due Date**

Quizzes will be due every Mondays at 11:59 PM AEST in weeks 2, 3, 4, 5, & 6

**Return Date to Students**

Grades will be available once each quiz has closed.

**Weighting**

25%

**Minimum mark or grade**

50%

**Assessment Criteria**

No Assessment Criteria

**Referencing Style**

- [Harvard \(author-date\)](#)
- [American Psychological Association 7th Edition \(APA 7th edition\)](#)

**Submission**

Online

**Learning Outcomes Assessed**

- Evaluate epidemiological investigations and sources of epidemiological data to identify inequities, enable change and advocate for health.
- Argue for a population health outcome using relevant research methods and approaches.
- Explain principles of data confidentiality and disclosure, and apply the ethical use of data.

### 3 Assessment 3: Funding Application

**Assessment Type**

Written Assessment

**Task Description**

In your professional life, you may use your knowledge of epidemiology to support applications for funding by your employer, either through grants or budget requests, to address health outcomes within your area. This assessment is a practical application of that scenario.

In this assessment task, you are required to research and write an application for funding. The funding will support an evidence-based intervention that will improve the health of a population concerning the health outcome you critically outlined in Assessment 1. Your task is to complete an application for funding to conduct an evidence-based population-level intervention to improve population health.

The application requires you to use an evaluation of relevant literature to propose an appropriate evidence-based, contextually relevant approach that addresses the health issue. You must research and design an evidence-based project to address the health outcome of interest that is suitable for the context in which you are implementing it. This is consistent with the goal of public health, which is to ask not just "what works" but to address "what works for whom, under what circumstances, and how".

The funding body has provided a template for the application with prescribed sections and strict word limits to explain your proposed project. You should source, interpret, critically evaluate and communicate the current epidemiological evidence, demonstrating your understanding of the available sources evidence and how they support your proposed project. You will submit your completed template, along with your references, via Moodle.

**Assessment Due Date**

Week 12 Friday (7 Feb 2025) 11:59 pm AEST

**Return Date to Students**

Following Certification of Grades.

**Weighting**

50%

**Minimum mark or grade**

50%

**Assessment Criteria****Relevance (30%)**

- Use of epidemiological measures to justify the selection of the health outcome
- Evidence of need established in the Australian context
- Suitability of proposed methodology
- Alignment of critical literature review with topic, need, methodology and anticipated impacts
- Relevance of proposed project impacts to identified health outcome
- Factual accuracy of statements
- Connections between content and evidence

**Validity (40%)**

- Strength of justification for the project
- Quality of critical literature review
- Effectiveness of proposed methodology to achieve identified outcomes
- Feasibility of project and anticipated impacts
- Extent and magnitude of anticipated impacts
- Originality of proposed project
- Depth, extent and quality of evidence used
- Strength of overall application
- Compliance of proposed project with ethical considerations

**Organisation (20%)**

- Consideration of required components of the assigned task
- Structure and flow of information
- Coherence and clarity of expression (including spelling, grammar, syntax)

**Presentation (10%)**

- Style and formatting in accordance with required academic standards
- Compliance with word limits
- Typographical matters
- Referencing protocols

**Referencing Style**

- [Harvard \(author-date\)](#)
- [American Psychological Association 7th Edition \(APA 7th edition\)](#)

**Submission**

Online

## Learning Outcomes Assessed

- Calculate and communicate epidemiological statistics relating to the measurement of health, wellness and disease.
- Interpret epidemiological data within theories and frameworks of social justice and cultural diversity for effective knowledge transfer and exchange.
- Evaluate epidemiological investigations and sources of epidemiological data to identify inequities, enable change and advocate for health.
- Argue for a population health outcome using relevant research methods and approaches.
- Explain principles of data confidentiality and disclosure, and apply the ethical use of data.

## 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