

## EPID6420: Fundamentals of Epidemiology

Callaghan and Online  
Semester 1 - 2024



THE UNIVERSITY OF  
NEWCASTLE  
AUSTRALIA

## OVERVIEW

<b>Course Description</b>	Introduces students to the basic concepts of epidemiology. Epidemiology is the study of the distribution and determinants of disease in specific populations and the application of this knowledge to the evaluation and control of health problems in the community.
<b>Academic Progress Requirements</b>	Nil
<b>Contact Hours</b>	<b>CALLAGHAN</b>  <b>Online Activity</b> Online 2 hour(s) per week(s) for 13 week(s) starting Week 1 Contact hours are an indication only.  <b>Self-Directed Learning</b> Online 8 hour(s) per week(s) for 13 week(s) starting Week 1  <b>Tutorial</b> Face to Face On Campus 1 hour(s) per week(s) for 13 week(s) starting Week 1  <b>ONLINE</b>  <b>Online Activity</b> Online 2 hour(s) per week(s) for 13 week(s) starting Week 1 Contact hours are an indication only.  <b>Self-Directed Learning</b> Online 8 hour(s) per week(s) for 13 week(s) starting Week 1
<b>Unit Weighting</b>	10
<b>Workload</b>	Students are required to spend on average 120-140 hours of effort (contact and non-contact) including assessments per 10 unit course.

# COURSE OUTLINE

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# CONTACTS

<b>Course Coordinator</b>	<b>Callaghan and Online</b> Dr Catherine Chojenta <a href="mailto:Catherine.Chojenta@newcastle.edu.au">Catherine.Chojenta@newcastle.edu.au</a> (02) 4042 0672
<b>Teaching Staff</b>	Other teaching staff will be advised on the course Canvas site.
<b>School Office</b>	<b>School of Medicine and Public Health Education Office</b> <a href="mailto:SMPH-edoffice@newcastle.edu.au">SMPH-edoffice@newcastle.edu.au</a> +61 2 404 20550

# SYLLABUS

<b>Course Content</b>	Learning modules covered in this course include: Module 1: Descriptive epidemiology Module 2: Analytic observational studies Module 3: Error Module 4: Systematic review and meta-analysis
<b>Course Learning Outcomes</b>	<b>On successful completion of this course, students will be able to:</b> <ol style="list-style-type: none"><li>1. Recall common population health/social indicators and calculate common measures of disease/death frequency, and crude, specific and standardised rates.</li><li>2. Recall the range of sampling strategies and determine which is optimal to recruit subjects for a particular study.</li><li>3. Differentiate between the types of descriptive studies, and identify their importance and limitations.</li><li>4. Distinguish between association and causation, and identify the errors that can weaken the demonstration of a causative link.</li><li>5. Apply the Bradford Hill criteria of causation to an association to evaluate if this is likely to be causal.</li><li>6. Construct and use a 2X2 table to calculate and interpret measures of effect from cross-sectional studies, case control studies, cohort studies, and randomised controlled trials.</li><li>7. Interpret a forest plot, pooled effect size, and measures of heterogeneity and publication bias from a systematic review and meta-analysis.</li><li>8. Identify strengths and limitations related to the quality of a case control study, cohort study, randomised controlled trial and/or systematic review and meta-analysis.</li></ol>
<b>Course Materials</b>	<b>Other Resources:</b> <ul style="list-style-type: none"><li>- See Canvas for course materials.</li></ul>

# ASSESSMENTS

This course has 4 assessments. Each assessment is described in more detail in the sections below.

	Assessment Name	Due Date	Involvement	Weighting	Learning Outcomes
1	Online Quiz 1	Week 4 Thursday 21 March 2024 by 11:59pm AEDT	Individual	25%	1, 3
2	Online Quiz 2	Week 7 Thursday, 11 April 2024 by 11:59pm AEST	Individual	25%	4, 5, 6, 8
3	Online Quiz 3	Week 10 Thursday, 16 May 2024 by 11:59PM AEST	Individual	25%	2, 4, 6, 8
4	Online Quiz 4	Week 13 Thursday, 6 June 2024 by 11:59PM AEST	Individual	25%	7, 8

**Late Submissions** The mark for an assessment item submitted after the designated time on the due date, without an approved extension of time, will be reduced by 10% of the possible maximum mark for that assessment item for each day or part day that the assessment item is late. Note: this applies equally to week and weekend days.

## Assessment 1 - Online Quiz 1

**Assessment Type** Quiz  
**Description** See Canvas for Quiz details.  
**Weighting** 25%  
**Due Date** Week 4 - Thursday 21 March 2024 by 11:59pm AEDT  
**Submission Method** Online

## Assessment 2 - Online Quiz 2

**Assessment Type** Quiz  
**Description** See Canvas for Quiz details  
**Weighting** 25%  
**Due Date** Week 7 - Thursday, 11 April 2024 by 11:59pm AEST  
**Submission Method** Online

## Assessment 3 - Online Quiz 3

**Assessment Type** Quiz  
**Description** See Canvas for Quiz details  
**Weighting** 25%  
**Due Date** Week 10 - Thursday, 16 May 2024 by 11:59PM AEST  
**Submission Method** Online

## Assessment 4 - Online Quiz 4

**Assessment Type** Quiz  
**Description** See Canvas for Quiz details  
**Weighting** 25%  
**Due Date** Week 13 - Thursday, 6 June 2024 by 11:59PM AEST  
**Submission Method** Online

# ADDITIONAL INFORMATION

## Grading Scheme

This course is graded as follows:

Range of Marks	Grade	Description
85-100	High Distinction (HD)	Outstanding standard indicating comprehensive knowledge and understanding of the relevant materials; demonstration of an outstanding level of academic achievement; mastery of skills*; and achievement of all assessment objectives.
75-84	Distinction (D)	Excellent standard indicating a very high level of knowledge and understanding of the relevant materials; demonstration of a very high level of academic ability; sound development of skills*; and achievement of all assessment objectives.
65-74	Credit (C)	Good standard indicating a high level of knowledge and understanding of the relevant materials; demonstration of a high level of academic achievement; reasonable development of skills*; and achievement of all learning outcomes.
50-64	Pass (P)	Satisfactory standard indicating an adequate knowledge and understanding of the relevant materials; demonstration of an adequate level of academic achievement; satisfactory development of skills*; and achievement of all learning outcomes.
0-49	Fail (FF)	Failure to satisfactorily achieve learning outcomes. If all compulsory course components are not completed the mark will be zero. A fail grade may also be awarded following disciplinary action.

\*Skills are those identified for the purposes of assessment task(s).

## Communication Methods

Communication methods used in this course include:

- Canvas Course Site: Students will receive communications via the posting of content or announcements on the Canvas course site.
- Email: Students will receive communications via their student email account.

## Course Evaluation

Each year feedback is sought from students and other stakeholders about the courses offered in the University for the purposes of identifying areas of excellence and potential improvement.

## Oral Interviews (Vivas)

As part of the evaluation process of any assessment item in this course an oral examination (viva) may be conducted. The purpose of the oral examination is to verify the authorship of the material submitted in response to the assessment task. The oral examination will be conducted in accordance with the principles set out in the [Oral Examination \(viva\) Procedure](#). In cases where the oral examination reveals the assessment item may not be the student's own work the case will be dealt with under the [Student Conduct Rule](#).

## Academic Misconduct

All students are required to meet the academic integrity standards of the University. These standards reinforce the importance of integrity and honesty in an academic environment. Academic Integrity policies apply to all students of the University in all modes of study and in all locations. For the Student Academic Integrity Policy, refer to <https://policies.newcastle.edu.au/document/view-current.php?id=35>.

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**Adverse  
Circumstances**

The University acknowledges the right of students to seek consideration for the impact of allowable adverse circumstances that may affect their performance in assessment item(s).

Applications for special consideration due to adverse circumstances will be made using the online Adverse Circumstances system where:

1. the assessment item is a major assessment item; or
2. the assessment item is a minor assessment item and the Course Co-ordinator has specified in the Course Outline that students may apply the online Adverse Circumstances system;
3. you are requesting a change of placement; or
4. the course has a compulsory attendance requirement.

Before applying you must refer to the Adverse Circumstance Affecting Assessment Items Procedure available at:

<https://policies.newcastle.edu.au/document/view-current.php?id=236>

**Important Policy  
Information**

The Help button in the Canvas Navigation menu contains helpful information for using the Learning Management System. Students should familiarise themselves with the policies and procedures at <https://www.newcastle.edu.au/current-students/respect-at-uni/policies-and-procedures> that support a safe and respectful environment at the University.

*This course outline was approved by the Head of School. No alteration of this course outline is permitted without Head of School approval. If a change is approved, students will be notified and an amended course outline will be provided in the same manner as the original.*

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