

# PUBH 6001 EPIDEMIOLOGY OF CLIMATE CHANGE

**Credit Points** 10

**Coordinator** Haider Mannan ([https://directory.westernsydney.edu.au/search/name/Haider Mannan/](https://directory.westernsydney.edu.au/search/name/Haider%20Mannan/))

**Description** By looking at air quality, nutrition, infectious diseases, and human migration, this subject explains how increases in greenhouse gases impact public health and people around the globe, and how climate change directly affects us and our lives. It details things we can do to mitigate negative health risks associated with rising temperatures and what factors make some populations more vulnerable than others to climate change's negative health impacts. Finally, it explains how measures to reduce greenhouse gas emissions can not only limit future climate changes but can also generate substantial immediate health "co-benefits" over and above the benefit of reducing climate change.

**School** Medicine

**Discipline** Epidemiology

**Student Contribution Band** HECS Band 2 10cp

**Level** Postgraduate Coursework Level 6 subject

**Assumed Knowledge**

It is assumed that students have knowledge of concepts covered in PUBH 7016 Introduction to Epidemiology or PUBH 7015 Introduction to Clinical Epidemiology.

## Learning Outcomes

1. Describe how the climate has changed, explain the role of greenhouse gases in climate change, and describe how the climate is predicted to change in the future.
2. Describe the pathways from climate change to human diseases particularly those which are related to heat, air quality, infections, nutrition and migration
3. Describe how climate change adversely impacts population health, with differing vulnerability across population sub-groups, through direct effects; through ecosystem transformation and degradation (loss in biodiversity); and through the stress it places on political, economic, and social systems.
4. Critically discuss issues in exposure assessment.
5. Explain important methodological and contextual challenges in epidemiology of climate change including the strengths and weaknesses of the main types of study designs.
6. Debate contemporary issues in epidemiology of climate change.
7. Explain how strategies for adaptation and mitigation of the effect of climate change including that on migration can reduce adverse health impacts of climate change and can generate substantial non-climate health benefits in a just and equitable manner.
8. Design an epidemiological study to address a climate change exposure topic.

## Subject Content

- Climate change and its impact
- Climate change and population health
- Contemporary topics in climate change
- Exposure or vulnerability assessment for a defined population
- Study designs in context of epidemiology of climate change

- Health risk assessment
- Climate change epidemiology in practice
- Responding to climate change

## Assessment

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are regularly updated, where there is a difference your Learning Guide takes precedence.

Type	Length	Percent	Threshold	Individual/Group Task
Case Study	2500 words	30	N	Individual
Report	2000 words	40	N	Individual
Viva Voce	Not Applicable	30	N	Individual

Teaching Periods

## Autumn (2023)

### Online

#### Online

**Subject Contact** Haider Mannan ([https://directory.westernsydney.edu.au/search/name/Haider Mannan/](https://directory.westernsydney.edu.au/search/name/Haider%20Mannan/))

View timetable ([https://classregistration.westernsydney.edu.au/odd/timetable/?subject\\_code=PUBH6001\\_23-AUT\\_ON\\_2#subjects](https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=PUBH6001_23-AUT_ON_2#subjects))

### Parramatta - Victoria Rd

#### On-site

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