

ENVL 3009 AIR QUALITY AND CLIMATE CHANGE

Credit Points 10

Coordinator Maggie Davidson ([https://directory.westernsydney.edu.au/search/name/Maggie Davidson/](https://directory.westernsydney.edu.au/search/name/Maggie%20Davidson/))

Description Deteriorating air quality and climate change are two major challenges facing humanity and threatening environmental sustainability and human health. As such, air quality and climate change are of International, National, State and local community concern. This unit critically analyses the many issues that relate to air pollution, including its nature, extent, impacts and monitoring. Students will examine an air pollution issue of their choice.

School Science

Student Contribution Band HECS Band 2 10cp

Check your HECS Band contribution amount via the Fees (https://www.westernsydney.edu.au/currentstudents/current_students/fees/) page.

Level Undergraduate Level 3 subject

Equivalent Subjects PUBH 3001 - Air Quality and Climate Change LGYA 6192 - Air Quality Management

Restrictions Successful completion of 60 credit points at Level 1 and 40 credit points at Level 2.

Learning Outcomes

On successful completion of this subject, students should be able to:

1. Evaluate the major sources of air pollution and critically analyse associated impacts on human health and environmental sustainability.
2. Describe the impact of meteorology on air pollution in a local area.
3. Critically analyse the health effects of air pollution.
4. Evaluate and analyse the monitoring and assessment of air pollution.
5. Critically analyse the causes and the main methods of controlling point sources of air pollution.
6. Apply and evaluate basic air modelling techniques.
7. Evaluate indoor air problems.

Subject Content

Introduction to Air Pollution
 Impact of legislation on Ambient Air Pollution
 Sources of Air Pollution
 Motor Vehicles and their impact on air pollution
 Sources and human health effects of air pollution
 Climatology
 Air quality assessment and air modelling
 What is a critical literature review relating to air pollution
 Indoor Air Quality Odour Assessment
 Global Issues - Climate Change

Prescribed Texts

- Vallero, D. (2014). Fundamentals of air pollution (5th ed.). Amsterdam, Netherlands : Elsevier

Teaching Periods