

# PUBH 3021 AIR POLLUTION & CONTROL

**Credit Points** 10

**Legacy Code** 301276

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

**Description** Air Pollution and Control introduces students with an interest in working in the fields of environmental science, environmental consulting, environmental management and environmental health to the basic principles and practices of air quality assessment and management. Air pollution does not recognise socio-political boundaries, and air pollutants transfer intercontinentally through pathways both close to the Earth's surface and upper atmosphere. Air Quality management represents a major challenge facing humanity because it poses a threat to human health, agriculture and environmental sustainability, as it can penetrate even remote and once pristine environments. As such, air pollution management and control is of International, National, State and Local government and community concern. This unit critically analyses the natural and anthropogenic sources of air pollution, their nature, health and environmental impacts, monitoring, regulation and control.

**School** Science

**Discipline** Environmental Health

**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/](https://www.westernsydney.edu.au/currentstudents/current_students/fees/)) page.

**Level** Undergraduate Level 3 subject

**Pre-requisite(s)** MATH 1026 OR  
MATH 1014 AND  
NATS 1019 AND  
CHEM 1008 AND  
BIOS 2022 AND  
BIOS 1012

**Incompatible Subjects** PUBH 3002 Air Quality and Climate Change

**Restrictions** Students must have achieved 80 credit points to enrol in this subject which is intended for 3rd year students.

**Assumed Knowledge**

Basic chemistry, biology and microbiology.

## Learning Outcomes

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

1. Appraise and categorise human and natural sources of air pollution
2. Identify, define and compare tools for regulatory assessment and research of air pollution (ambient, public health and occupational exposures).
3. Interpret the impact of meteorology on air pollution in a local area.
4. Discuss the health effects associated with criteria of National Environmental Pollution measures (NEPMs) defined as air pollutants and air toxics.
5. Evaluate the major sources of air pollution
6. Compare and contrast basic air modelling techniques.

7. Design baseline indoor air quality assessment
8. Prepare a critical literature review of an ambient, public health or occupational air quality issue.

## Subject Content

- Sources of Air Pollution (natural and anthropogenic)
- Health Impacts of Air Pollutants
- Interaction between meteorology and air pollution
- Air quality assessment tools
- Introduction to air pollution modelling
- Air Quality regulation and policy
- Interpretation and application criteria, occupational and public health air quality exposure limits
- Indoor Air Quality
- Odour Assessment
- Emerging issues

## 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.

Item	Length	Percent	Threshold	Individual/Group Task
Annotated Bibliography	1,500 words	20	N	Individual
Report	2,000 words	40	N	Individual
Literature Review	2,000 words	40	N	Individual

Prescribed Texts

- Vallero, D. (2014). Fundamentals of air pollution (5th ed.) ? or latest edition.

Teaching Periods

## Autumn Hawkesbury

**Composite**

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

View timetable ([https://classregistration.westernsydney.edu.au/even/timetable/?subject\\_code=PUBH3021\\_22-AUT\\_HW\\_C#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=PUBH3021_22-AUT_HW_C#subjects))