

PUBH 3021 AIR POLLUTION & CONTROL

Credit Points 10

Legacy Code 301276

Coordinator Maggie Davidson (<https://directory.westernsydney.edu.au/search/name/Maggie Davidson/>)

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 subject 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 fees via the Fees (https://www.westernsydney.edu.au/currentstudents/current_students/fees/) page.

Level Undergraduate Level 3 subject

Incompatible Subjects PUBH 3002 Air Quality and Climate Change

Restrictions

Successful completion of 120 credit points

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

1. Sources of Air Pollution (natural and human made)

2. Health Impact of Air Pollution
3. Interaction between meteorology and air pollutants
4. Assessing Air Quality (environmental and urban)
5. Introduction to air pollutant modelling
6. Regulation and exposure standards (advisory and mandatory)
7. Assessing the indoor environment
8. Odours, Vaping and Environmental Tobacco Smoke

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 | Mandatory |
|-------------------|--------------------------|---------|-----------|------------------------|-----------|
| Short Answer | 500 words max per module | 30 | N | Individual | N |
| Literature Review | 1,500 words (+/- 20%) | 30 | N | Individual | N |
| Professional Task | 2,000 words (+/-20%) | 40 | N | Individual | N |

Prescribed Texts

- N/A

Teaching Periods

Spring (2025)

Hawkesbury

Hybrid

Subject Contact Maggie Davidson (<https://directory.westernsydney.edu.au/search/name/Maggie Davidson/>)

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=PUBH3021_25-SPR_HW_3#subjects)