

# CIVL 2002 ENVIRONMENTAL ENGINEERING

**Credit Points** 10

**Legacy Code** 300737

**Coordinator** Mariam Darestani (<https://directory.westernsydney.edu.au/search/name/Mariam Darestani/>)

**Description** This subject teaches the fundamental theory and methods of environmental engineering required for students studying civil engineering and other disciplines. Students will explore a wide range of issues including water quality and treatment, waste management, and air and noise pollution in order to solve environmental issues in a sustainable manner. To provide experience in real world professional applications of their learning students will generate a portfolio in addition to participating in a group project, labs and a field trip.

**School** Eng, Design & Built Env

**Discipline** Water and Sanitary Engineering

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

Check your fees 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 2 subject

**Equivalent Subjects** CIVL 4006 - Environmental Engineering

## Learning Outcomes

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

1. Apply appropriate drinking water and wastewater treatment techniques.
2. Explain climate change issues and its implication.
3. Examine basic air and noise pollution control techniques.
4. Examine basic solid and hazardous waste management techniques in urban and rural environments.
5. Examine basic environmental impact assessment and life cycle assessment methods.
6. Propose and communicate effectively a solution for an environmental problem as a team.

## Subject Content

1. Introduction and general principle of ecologically sustainable development
2. Climate change and Emerging environmental issues
3. Water chemistry
4. Drinking water treatment
5. Water quality management
6. Wastewater treatment
7. Emerging water and water treatment and desalination technologies
8. Solid and hazardous waste management
9. Air and noise pollution
10. Life cycle assessment
11. Environmental planning and environmental impact assessment

## 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
Participation	1 hour (per week)	10	N	Individual
Intra-session Exam	60 minutes	25	Y	Individual
End-of-session Exam	45minutes	15	Y	Individual
Applied Project	Report (1000 words) Video (3 minutes) Presentation (3-5 minutes)	30	N	Group
Report	3000 - 5000 words	20	N	Individual

## Teaching Periods

### Sydney City Campus - Term 1 (2024)

#### Sydney City

##### On-site

**Subject Contact** Mariam Darestani (<https://directory.westernsydney.edu.au/search/name/Mariam Darestani/>)

View timetable ([https://classregistration.westernsydney.edu.au/even/timetable/?subject\\_code=CIVL2002\\_24-SC1\\_SC\\_1#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=CIVL2002_24-SC1_SC_1#subjects))

### Spring (2024)

#### Penrith (Kingswood)

##### On-site

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View timetable ([https://classregistration.westernsydney.edu.au/even/timetable/?subject\\_code=CIVL2002\\_24-SPR\\_KW\\_1#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=CIVL2002_24-SPR_KW_1#subjects))

### Parramatta City - Macquarie St

##### On-site

**Subject Contact** Mariam Darestani (<https://directory.westernsydney.edu.au/search/name/Mariam Darestani/>)

View timetable ([https://classregistration.westernsydney.edu.au/even/timetable/?subject\\_code=CIVL2002\\_24-SPR\\_PC\\_1#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=CIVL2002_24-SPR_PC_1#subjects))

### Sydney City Campus - Term 3 (2024)

#### Sydney City

##### On-site

**Subject Contact** Mariam Darestani (<https://directory.westernsydney.edu.au/search/name/Mariam Darestani/>)

View timetable ([https://classregistration.westernsydney.edu.au/even/timetable/?subject\\_code=CIVL2002\\_24-SC3\\_SC\\_1#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=CIVL2002_24-SC3_SC_1#subjects))