

# CIVL 7018 WATER TREATMENT AND DISTRIBUTION

**Credit Points** 10

**Legacy Code** 301279

**Coordinator** Sathaa Arumugam Sathasivan ([https://directory.westernsydney.edu.au/search/name/Sathaa Arumugam Sathasivan/](https://directory.westernsydney.edu.au/search/name/Sathaa%20Arumugam%20Sathasivan/))

**Description** This subject focuses on the design of conventional and emerging water treatment unit processes using fundamental science and hydraulic engineering principles. The emphasis is on practical design and water quality management in the distribution system. Students will be exposed to emerging water treatment processes and its applications through research and practical work.

**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** Postgraduate Coursework Level 7 subject

## Restrictions

Students must be enrolled in a postgraduate program.

## Learning Outcomes

After successful completion of this subject, students will be able to:

1. Apply the principles of water treatment processes.
2. Design the elements of the water treatment units in more detail with appropriate dimensions.
3. Design water treatment processes for different applications.
4. Explain the emerging treatment processes through research project.
5. Design water treatment processes to obtain distribution systems goals.
6. Successfully manage selected quality issues in the distribution system.
7. Conceptually design the stormwater treatment systems.

## Subject Content

1. Introduction to source water quality
2. Conventional water treatment processes
3. Water quality management in the distribution system
4. Distribution system issues
5. Emerging and advanced water treatment processes
6. Disposal/reuse of water treatment plant sludge.

## 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/<br>Group Task |
|------------|-------------|---------|-----------|---------------------------|
| Report     | 15-20 pages | 35      | N         | Individual                |
| Report     | 3,000 words | 25      | N         | Group                     |
| Final Exam | 2 hours     | 40      | Y         | Individual                |

Teaching Periods

## Spring (2024)

**Parramatta City - Macquarie St**

### On-site

**Subject Contact** Sathaa Arumugam Sathasivan ([https://directory.westernsydney.edu.au/search/name/Sathaa Arumugam Sathasivan/](https://directory.westernsydney.edu.au/search/name/Sathaa%20Arumugam%20Sathasivan/))

View timetable ([https://classregistration.westernsydney.edu.au/even/timetable/?subject\\_code=CIVL7018\\_24-SPR\\_PC\\_1#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=CIVL7018_24-SPR_PC_1#subjects))