

CIVL 7017 WASTEWATER TREATMENT AND RECYCLING

Credit Points 10

Legacy Code 301278

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 teaches students the fundamental science and hydraulic engineering principles necessary to design, operate and troubleshoot wastewater systems consisting of collection, treatment and recycling and resource recovery. Students will be exposed to emerging wastewater 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

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 wastewater treatment processes.
2. Design the elements of the wastewater treatment units in more detail with appropriate dimensions.
3. Conceptually design wastewater treatment processes for different applications.
4. Explain the emerging treatment processes through a research project.
5. Design the sludge treatment and management process.
6. Apply the principles and process of resources recovery.

Subject Content

1. Sources and quality of wastewater including storm water sources
2. Principles of wastewater treatment process
3. Conventional wastewater treatment process design
4. Treatment and disposal of wastewater sludge
5. Emerging and advanced wastewater treatment processes for recycled water production
6. Resources recovery from wastewater and 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/ Group Task
Report	15-20 pages	25	N	Individual
Report	3,000 words	25	N	Group

Quiz	15 min long each x 12 weeks	15	N	Individual
Final Exam	2 hours	35	Y	Individual

Teaching Periods

Autumn (2022)

Parramatta City - Macquarie St

Day

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=CIVL7017_22-AUT_PC_D#subjects)

Autumn (2023)

Parramatta City - Macquarie St

On-site

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