SUSTAINABILITY ENGINEERING, CONCENTRATION (0281)

Western Sydney University Concentration Code: 0281

Previous Code: SM3118.1

Available to students in other Western Sydney University programs?
No

This minor develops the knowledge and practical skills needed to design infrastructure that is sustainable, climate-resilient, and smart. Students engage in real-world projects and integrated system analysis to explore the planning and development of liveable cities, green buildings, blue-green spaces, and sustainable transport networks. The minor covers sustainability analysis, climate-smart engineering approaches, renewable energy system design, sustainable water supply and wastewater treatment, and circular economy principles in waste management. Emphasis is placed on emerging technologies, environmental and social responsibility, and practical design solutions for both urban and rural contexts. Graduates will be equipped to tackle contemporary engineering challenges and contribute to global sustainability goals through innovative, future-focused engineering solutions. After successful completion of this minor, graduates will be able to apply the principles of sustainability analysis and design in their own engineering specialisation area.

Location

Campus	Mode	Advice
Parramatta City Campus-Macquarie Street	Internal	Program Advice (https://directory.westernsydney.edu.au/search/email/edbe@westernsydney.edu.au)
Penrith Campus	Internal	edbe@westernsydney.edu.au

Concentration Structure

From 2024, please refer to Sustainability Engineering, Minor (0281) (https://hbook.westernsydney.edu.au/archives/2024-2025/majors-minors/sustainability-engineering-minor/). This minor is available to all students in Bachelor of Engineering (Honours) (3740) (https://hbook.westernsydney.edu.au/archives/2024-2025/programs/bachelor-engineering-honours/) and Bachelor of Engineering Advanced (Honours) (3771) (https://hbook.westernsydney.edu.au/archives/2024-2025/programs/bachelor-engineering-advanced-honours/).

Students must complete 40 credit points as follows:

Subject	Title	Credit Points
Students must complete the following two core subjects		
ENGR 2032	Sustainability Analysis and Design	10
ELEC 3010	Renewable Energy Systems Design	10
Students must complete two subjects from the following:		20
ENGR 4035	Smart and Liveable Cities	
ENGR 4034	Climate Smart Engineering	
CIVL 2018	Water Supply Systems Design	
CIVL 3019	Wastewater Systems Design	
CIVL 4021	Sustainable Waste Engineering	
Total Credit Points		**40**

Related Programs

Bachelor of Engineering (Honours) (3740) (https://hbook.westernsydney.edu.au/archives/2024-2025/programs/bachelor-engineering-honours/)

Bachelor of Engineering Advanced (Honours) (3771) (https://hbook.westernsydney.edu.au/archives/2024-2025/programs/bachelor-engineering-advanced-honours/)