

ENGR 3025 DESIGNING FOR CIRCULAR ECONOMY (ADVANCED)

Credit Points 10

Legacy Code 301293

Coordinator Sasha Alexander ([https://directory.westernsydney.edu.au/search/name/Sasha Alexander/](https://directory.westernsydney.edu.au/search/name/Sasha%20Alexander/))

Description Societies today face up to considerable challenges around the sustainable use of human and physical resources. According to the United Nations Sustainable Development Goals 2030 (UNSDGs) there are certainly rewards for professions that carefully consider current, evolving and future systems with a view of providing an integrated response to the sustainable use of resources in local, city-based or regional built environments. This unit requires students to develop an evidence-based sustainable design proposal through the evaluation of value streams, circular economy impacts, and self-prioritised UNSDGs targets with a view to commercialise. Students will develop a Futures Strategy report on their design challenge informed by industry or community based observations.

School Eng, Design & Built Env

Discipline Other Engineering And Related Technologies

Student Contribution Band HECS Band 2 10cp

Check your HECS Band contribution amount via the Fees (https://www.westernsydney.edu.au/currentstudents/current_students/fees/) page.

Level Undergraduate Level 3 subject

Equivalent Subjects ENGR 2021 Sustainable Design Sustainable Futures

Restrictions Students must have completed 100 credit points

Assumed Knowledge

Sufficient practical knowledge and skills in sustainable design and/or materials related life cycle is desirable.

Learning Outcomes

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

1. Apply Circular Economy principles in response to a socio-technical-environmental challenge.
2. Develop an advanced proposal using Circular Economy principles that references select United Nations Sustainable Development Goals 2030.
3. Apply evidenced-based approach in responding to a development challenge within a specific area and in collaboration with a project industry partner.
4. Propose and present a Futures Strategy for collaborations and investment guided by one's own advanced Circular Economy solution

Subject Content

1. New product or service development guided by Circular Economy principles in cooperation with UNSDGs.
2. Value Stream Mapping from a community impact perspective

3. Developing an advanced sustainable design proposal responding to Circular Economy principles.

4. Futures strategy development timeline for a Circular Economy innovation proposal.

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.

Item	Length	Percent	Threshold	Individual/Group Task
Annotated Bibliography and Report	1500 words	20%	N	Individual
Report and Presentation	1000 words 3 x A3 size conceptualisa Presentation (3 minutes)	30%	N	Individual
Report and Presentation	1250 words 1 x A3 conceptualisation Presentation (5 minutes)	50%	N	Individual

Teaching Periods

Spring

Penrith (Kingswood)

Day

Subject Contact Sasha Alexander ([https://directory.westernsydney.edu.au/search/name/Sasha Alexander/](https://directory.westernsydney.edu.au/search/name/Sasha%20Alexander/))

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=ENGR3025_22-SPR_KW_D#subjects)

Parramatta - Victoria Rd

Day

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