

# ENGR 4017 DESIGN THINKING FOR COMPETITIVE ADVANTAGE

**Credit Points** 10

**Legacy Code** 301302

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

**Description** Design Thinking has become widely adopted as a novel problem solving mechanism and asset to market growth, resource utilisation, and competitiveness. This approach incorporates human-centric attributes and iterative processes which are features of professional designers co-creating with stakeholders. In this unit, students focus on empathic viewpoints associated with understanding people, markets and the environment. They explore future possibilities for communities using decision-making processes, informed by global challenges as represented through the UNSDGs. This new global societal driver for equitable living standards, economic prosperity, and sustainable societies is explored through online study involving a series of webinars, digital interactions, and conclude with a student prototype presentation.

**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/](https://www.westernsydney.edu.au/currentstudents/current_students/fees/)) page.

**Level** Undergraduate Level 4 subject

## Learning Outcomes

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

1. Evaluate opportunities for competitive advantage using Design Thinking methodology and employing empathetic viewpoints and visualisation techniques.
2. Synthesise knowledge into a human-centred approach that engages with an aspect of the UNSDGs and produces a differentiated outcome
3. Convince a range of stakeholders in multi-disciplinary contexts of the use of Design Thinking for competitive opportunities and outcomes

## Subject Content

1. Design Thinking overview and as a strategic competitiveness method
2. Design Thinking as an organisational influencer
3. Empathic viewpoints that accelerate new product development
4. Framing a UNSDG-oriented project brief for new product development
5. Strategic decision-making around UNSDG outcome implementation and commercialisation

## 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
Critical Review	1,000 words; and contextual images	30	N	Individual
Applied Project	1,000 words; and visualisation	30	N	Individual
Report	1,200 words (report) and Prototype and 3 minutes (presentation)	40	N	Individual

Teaching Periods

### Spring (2022)

Online

Online

**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=ENGR4017\\_22-SPR\\_ON\\_0#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=ENGR4017_22-SPR_ON_0#subjects))

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