

# ENGR 1006 DESIGN STUDIO 2: FORM AND PRODUCTION

**Credit Points** 10

**Legacy Code** 301075

**Coordinator** Karen Yevenes (<https://directory.westernsydney.edu.au/search/name/Karen Yevenes/>)

**Description** From Spring 2020, this subject will be replaced by 301286

- Designing for People: Applied Ergonomics. This subject equips students with the skills to use creative design and structured decision making to solve challenging problems. Students will develop their understanding of design process by creating experimental models using various methods, including 3D rapid prototyping. Students will also record their design process via multimodal media, in both digital and non-digital format. They will also reflect upon the design process through the CDIO framework (Conceive, Design, Implement, Operate) and CAD (Computer-Aided Design).

**School** Eng, Design & Built Env

**Discipline** Other Engineering And Related Technologies

**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** Undergraduate Level 1 subject

**Equivalent Subjects** ENGR 1017 - Form and Production ENGR 1014 - Engineering and Design Concepts

## Learning Outcomes

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

1. Conceive design solutions to meet a brief, taking into account mechanical, structural, human and contextual requirements.
2. Develop and justify a design solution through an iterative process involving peer feedback.
3. Implement and test a design using prototyping.
4. Critically reflect on and document the design process and suggest improvement opportunities (using the CDIO framework).
5. Produce a project report reflecting design and engineering content.

## Subject Content

History of creativity in design and engineering

Design brief interpretation and reframing

Functional analysis

Project reporting for designers

## 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
Assessment 1: Object design in 3D in groups, evaluation report	Full scale physical model, e-portfolio. Consisting of 5 pages. and visual process diary as e-portfolio.	30	N	Group
Assessment 2: Object design - presentation of digital narrative and evaluation	10 minutes presentation of design solution including evaluation of design outcome.	30	N	Individual
Assessment 3: Project report and demo	10 page e-portfolio and 10 minutes presentation and 1:1 scale kinetic model. detailing abstract kinetic object design.	40	N	Individual

## Prescribed Texts

- Dowling, DG, Carew, A & Hadgraft, RG 2013, Engineering your future : an Australasian guide, 2nd edn, John Wiley and Sons Australia, Milton, Qld.