

# ENGR 2024 DESIGN GRAPHICS: COMMUNICATION FOR MANUFACTURE

**Credit Points** 10

**Legacy Code** 301290

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

**Description** Students will design manufacture ready product samples through the use of computer graphics including three-dimensional (3D) surfacing and solids modelling methods used by professionals engaged in engineering and industrial design practice. Students will produce two-dimensional (2D) and three-dimensional (3D) documentation, which can be widely applied to facilitate the understanding and production of parts and assemblies.

**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 2 subject

**Pre-requisite(s)** ENGR 2025

**Equivalent Subjects** ENGR 2014 Industrial Graphics 2 Transition

**Assumed Knowledge**

Prior knowledge of computer aided design modelling as well as working knowledge of Australian Standard AS1100 for engineering drawing would be desirable.

## Learning Outcomes

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

1. Incorporate sustainability manufacturing to product development and manufacturing.
2. Use 3D surface and solid modelling to design parts.
3. Produce engineering drawings in compliance with Australian Standards (AS) 1100 Parts 101 (General Principles) and 201 (Mechanical Drawing).
4. Design products specific to a variety of manufacturing processes.

## Subject Content

1. Surface modelling
2. Engineering Drawing to AS1100
3. Manufacturing parts ready for manufacturing
4. Materials and manufacturing processes

## 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	Mandatory
Applied Project	Surface modelling project: 5 parts; Solid modelling project: 5 parts; Full set of engineering drawings (draft 20 pages)	20	N	Individual	Y
Applied Project	Part assembly: 25 parts	40	N	Individual	Y
Applied Project	Full set of engineering drawings (final 30 pages)	40	N	Individual	Y

## Prescribed Texts

- Boundy, AW 2011, Engineering drawing, 8th edn, McGraw-Hill Australia, North Ryde, N.S.W.

## Teaching Periods

### Autumn (2025)

#### Parramatta City - Macquarie St

##### On-site

**Subject Contact** Mauricio Novoa (<https://directory.westernsydney.edu.au/search/name/Mauricio Novoa/>)

View timetable ([https://classregistration.westernsydney.edu.au/odd/timetable/?subject\\_code=ENGR2024\\_25-AUT\\_PC\\_1#subjects](https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=ENGR2024_25-AUT_PC_1#subjects))

### Sydney City Campus - Term 1 (2025)

#### Sydney City

##### On-site

**Subject Contact** Peter Lendrum (<https://directory.westernsydney.edu.au/search/name/Peter Lendrum/>)

View timetable ([https://classregistration.westernsydney.edu.au/odd/timetable/?subject\\_code=ENGR2024\\_25-SC1\\_SC\\_1#subjects](https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=ENGR2024_25-SC1_SC_1#subjects))

### Sydney City Campus - Term 3 (2025)

#### Sydney City

##### On-site

**Subject Contact** Peter Lendrum (<https://directory.westernsydney.edu.au/search/name/Peter Lendrum/>)

View timetable ([https://classregistration.westernsydney.edu.au/odd/timetable/?subject\\_code=ENGR2024\\_25-SC3\\_SC\\_1#subjects](https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=ENGR2024_25-SC3_SC_1#subjects))