

ENGR 2024 DESIGN GRAPHICS: COMMUNICATION FOR MANUFACTURE

Credit Points 10

Legacy Code 301290

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

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 HECS Band contribution amount via the 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 Principals) 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
Applied Project	Surface modelling project: 5 parts; Solid modelling project: 5 parts; Full set of engineering drawings (draft 20 pages)	20	N	Individual
Applied Project	Part assembly: 25 parts	40	N	Individual
Applied Project	Full set of engineering drawings (final 30 pages)	40	N	Individual

Prescribed Texts

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

Teaching Periods

Autumn (2022)

Parramatta - Victoria Rd

Day

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View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=ENGR2024_22-AUT_PS_D#subjects)

Sydney City Campus - Term 2 (2022)

Sydney City

Day

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Autumn (2023)

Parramatta City - Macquarie St

On-site

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View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=ENGR2024_23-AUT_PC_1#subjects)

Sydney City Campus - Term 1 (2023)

Sydney City

On-site

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Sydney City Campus - Term 3 (2023)

Sydney City

On-site

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View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=ENGR2024_23-SC3_SC_1#subjects)