

ENGR 2025 DESIGN GRAPHICS: ENGINEERING DOCUMENTATION

Credit Points 10

Legacy Code 301287

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

Description Current and future growth in the areas of product design, virtual reality, and high technology innovation industries require a foundation and working knowledge of 3D computer modelling. In this unit students will be introduced to 3D modelling software and the fundamental principles of current Australian Standards for engineering drawing and documentation. The skills gained will contribute to preparation for future complex projects in engineering, industrial design and creative industries that require prototyping, files for additive manufacturing (3D printing), and component designs that can perform at exact specifications and standards.

School Eng, Design & Built Env

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

Equivalent Subjects ENGR 2011 - Graphics 2 Visual Simulation

Learning Outcomes

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

1. Apply the principles of AS1100 to specify designed products and parts.
2. Use and interpret standard conventions used in engineering drawing.
3. Generate 2D part(s) and assembly engineering drawings using computer-aided design.
4. Communicate manufacturing requirements for designed parts and product assemblies using CAD software (engineering and reverse engineering).
5. Use 3D CAD modelling to design parts.
6. Design products specific to a variety of manufacturing processes.

Subject Content

Introduction to 3D modelling
Introduction to engineering drawing AS1100
Manufacturing processes
Materials specifications

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
CAD exercises: 20 x SolidWorks Tutorial exercises & Engineering Drawing & sketchbook exercises	20 x CAD exercises; & 10 sketchbook exercises	15	N	Individual
3D Modelling and Parts Assembly & Engineering Drawings	15 parts 3D Modelling and Full set of Engineering Drawings (30 pages)	40	N	Individual
3D Modelling and detailing	15 parts 3D Modelling and Full set of Engineering Drawings (30 pages)	45	N	Individual

Teaching Periods

2022 Semester 1

Parramatta - Victoria Rd

Day

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View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=ENGR2025_22-AUT_PS_D#subjects)

2022 Trimester 2

Sydney City

Day

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

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=ENGR2025_22-SC2_SC_D#subjects)

2022 Semester 2

Penrith (Kingswood)

Day

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View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=ENGR2025_22-SPR_KW_D#subjects)

Parramatta - Victoria Rd

Day

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