

# ENGR 2025 DESIGN GRAPHICS: ENGINEERING DOCUMENTATION

**Credit Points** 10

**Legacy Code** 301287

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

**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

**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 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
Applied Project	20 x CAD exercises; & 10 sketchbook exercises	15	N	Individual
Annotated Bibliography	15 parts 3D Modelling and Full set of Engineering Drawings (30 pages)	40	N	Individual
Applied Project	15 parts 3D Modelling and Full set of Engineering Drawings (30 pages)	45	N	Individual

Teaching Periods

## Autumn

### Parramatta - Victoria Rd

#### Day

**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=ENGR2025\\_22-AUT\\_PS\\_D#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=ENGR2025_22-AUT_PS_D#subjects))

## Sydney City Campus - Term 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/))

View timetable ([https://classregistration.westernsydney.edu.au/even/timetable/?subject\\_code=ENGR2025\\_22-SC2\\_SC\\_D#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=ENGR2025_22-SC2_SC_D#subjects))

## Spring

### Parramatta - Victoria Rd

#### Day

**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=ENGR2025\\_22-SPR\\_PS\\_D#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=ENGR2025_22-SPR_PS_D#subjects))