

ENGR 2025 DESIGN GRAPHICS: ENGINEERING DOCUMENTATION

Credit Points 10

Legacy Code 301287

Coordinator Michael Chapman (<https://directory.westernsydney.edu.au/search/name/Michael Chapman/>)

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 subject 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 fees 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.

| Type | Length | Percent | Threshold | Individual/ Group Task | Mandatory |
|------------------------|---|---------|-----------|------------------------|-----------|
| Applied Project | 20 x CAD exercises; & 10 sketchbook exercises | 15 | N | Individual | Y |
| Annotated Bibliography | 15 parts 3D Modelling and Full set of Engineering Drawings (30 pages) | 40 | N | Individual | Y |
| Applied Project | 15 parts 3D Modelling and Full set of Engineering Drawings (30 pages) | 45 | N | Individual | Y |

Teaching Periods

Sydney City Campus - Term 1 (2025)

Sydney City

On-site

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

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=ENGR2025_25-SC1_SC_1#subjects)

Spring (2025)

Parramatta City - Macquarie St

Hybrid

Subject Contact Michael Chapman (<https://directory.westernsydney.edu.au/search/name/Michael Chapman/>)

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=ENGR2025_25-SPR_PC_3#subjects)

Sydney City Campus - Term 3 (2025)

Sydney City

On-site

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

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=ENGR2025_25-SC3_SC_1#subjects)