

# ARCH 1004 DRAWING AND CAD

**Credit Points** 10

**Legacy Code** 301228

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

**Description** This subject is designed to provide students with the knowledge and skills necessary to develop elementary design skills and basic CAD (Computer Aided Design) proficiency suitable for application within the building industry. Students will learn to describe building designs in plan, section, elevation, isometric and perspective views. Basic drafting concepts and skills will be acquired in the context of individual detached housing designs. Students will also be required to develop appropriate analytical and problem solving skills in dealing with a realistic house building project.

**School** Eng, Design & Built Env

**Discipline** Interior and Environmental Design

**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 1 subject

**Equivalent Subjects** ARCH 1003 Graphic Communication and Design (WSTC)

ARCH 1001 Graphic Communication and Design

ARCH 1005 Drawing and CAD (WSTC)

## Learning Outcomes

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

1. Apply architectural and technical drafting standards and symbols.
2. Generate ideas, designs and 3D models for sustainable housing.
3. Differentiate and correctly interpret site plans, survey plans, floor plans, cross sections, elevations and roof plans.
4. Produce the required documentation for a standard three bedroom house using a CAD program.

## Subject Content

1. Sketching basic house designs
2. Drawing types - Plans, elevations and sections
3. Passive solar design principles
4. Efficient floor plan layouts
5. Finishes selection
6. CAD skills
7. Construction drawing essentials
8. Bathroom layouts

## 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 | Two A3-sized sheets, hand-drawn, 1:100 scale sketches of the floor plan and two main elevations. Fully annotated to describe the design concept | 40      | N         | Individual            |
| Applied Project | Minimum 5 x A3 sheets of CAD construction drawings: Rendered 3D view; Site plan; Floor plan; and some Elevations                                | 20      | N         | Individual            |
| Applied Project | Minimum 5 x A3 sheets of CAD construction drawings: Rendered 3D view; Site plan; Floor plan; 4 Elevations; and 2 Sections.                      | 40      | N         | Individual            |

Teaching Periods

### Autumn (2024)

#### Penrith (Kingswood)

**On-site**

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

[View timetable \(\[https://classregistration.westernsydney.edu.au/even/timetable/?subject\\\_code=ARCH1004\\\_24-AUT\\\_KW\\\_1#subjects\]\(https://classregistration.westernsydney.edu.au/even/timetable/?subject\_code=ARCH1004\_24-AUT\_KW\_1#subjects\)\)](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=ARCH1004_24-AUT_KW_1#subjects)

### Parramatta - Victoria Rd

**On-site**

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

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### Spring (2024)

#### Penrith (Kingswood)

**On-site**

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

View timetable ([https://classregistration.westernsydney.edu.au/even/timetable/?subject\\_code=ARCH1004\\_24-SPR\\_KW\\_1#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=ARCH1004_24-SPR_KW_1#subjects))

## **Parramatta - Victoria Rd**

### **On-site**

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