

BLDG 4015 BUILDING DESIGN PROJECT (CONSTRUCTION CERTIFICATE)

Credit Points 20

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

Description In this subject, students will continue to develop the design solution they created in Building Design Project 1 (Development Application) into a fully resolved CAD model suitable for costing, scheduling, and contracting. Students apply technical and critical thinking skills to address the project constraints, and present project documentation (site plans, floor plans, elevations, sections, details, and specifications) of a quality suitable to apply for a Construction Certificate. Complex constraints relating to buildability and efficient project delivery will be resolved based on extensive justifying research. Strict budgetary constraints will be imposed, and students will be expected to demonstrate a capacity to use lateral thinking and generate creative solutions in response to problematic situations which arise during project delivery but which were unknown at project commencement. Knowledge gained in this subject will benefit students aspiring to roles in the integrated building design industry and the delivery of building design solutions.

School Eng, Design & Built Env

Discipline Building

Student Contribution Band HECS Band 2 20cp

Check your fees via the Fees (https://www.westernsydney.edu.au/currentstudents/current_students/fees/) page.

Level Undergraduate Level 4 subject

Co-requisite(s) BLDG 4014 - Building Design Project (Development Application)

OR

BLDG 4014 - Building Design Project 1 (Honours)

OR

CIVL 4018 - Building Design Project 1 (Honours)

Equivalent Subjects CIVL 4019 - Building Design Project 2 (Honours)

OR

BLDG 4015 - Building Design Project 2 (Honours)

Incompatible Subjects BLDG 4002 - Building Design Project 2 (non-honours stream)

Restrictions

Students must be enrolled in 3727 Bachelor of Building Design Management or 3801 Bachelor of Building Design Management (Honours). Students must have successfully completed 220 credit points

Assumed Knowledge

Expertise in CAD, iterative design process and construction technology.

Learning Outcomes

After successful completion of this subject, students will be able to:

1. Recommend the appropriate construction systems, materials, finishes and performance standards expected in the completed building project.
2. Resolve the details of footings/floor/wall and floor/roof junctions and illustrate these with detail drawings to a professional standard.
3. Construct a fully detailed 3D CAD model with sufficient information for pricing and technical assessment.
4. Present design management choices in 2D views drawn from a professional 3D CAD model.
5. Resolve budgetary conflicts, construction safety issues and environmental impacts of construction using innovative design management solutions.
6. Reflect on feedback and extensive research to argue persuasively and justify design solutions.

Subject Content

1. Construction Certificate approval
2. Complex and high-rise development
3. Complex services integration and clash detection
4. Proactive response to stakeholder feedback
5. Conflict resolution

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 |
|-----------------|---|---------|-----------|---------------------------|-----------|
| Report | 2000 words | 20 | N | Individual | N |
| Applied Project | 3D CAD model presented as 12-16 compiled drawings including large scale (1:10 or 1:20) detail drawings of critical joints | 30 | N | Individual | N |
| Applied Project | 3D CAD model presented as 18-22 compiled drawings including building services, sustainability, and 3D renderings | 40 | N | Individual | Y |
| Reflection | 1000 words | 10 | Y | Individual | Y |

Teaching Periods

Spring (2025)

Parramatta - Victoria Rd

On-site

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

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=BLDG4015_25-SPR_PS_1#subjects)