

BLDG 4008 DIGITAL CONSTRUCTION

Credit Points 10

Legacy Code 301225

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

Description This subject offers knowledge and skills essential for a successful application of Building Information Modelling (BIM) in the context of the built environment. BIM has the potential to improve integration between design and construction processes, reduce design discrepancies and rework, optimise project time and cost performance, and manage risks. Students will develop an understanding of the generation, reviewing and application of 3D, 4D and 5D BIM models in building projects including aspects of BIM execution plans, cost and schedule integration, and document management. This subject will be taught through intensive practice-based workshops and computing labs, enabling students to build skills in virtual design and construction processes.

School Eng, Design & Built Env

Discipline Building Science and Technology

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 4 subject

Restrictions

Students must be enrolled in the following programs or majors:

3762 Bachelor of Construction Management (Honours)
3801 Bachelor of Building Design Management (Honours)
T131 Civil Engineering, Testamur Major
T132 Construction Engineering, Testamur Major

Assumed Knowledge

Building construction including residential, light industrial and small commercial, basic building measurement and estimating. Intermediate CAD knowledge and skills.

Learning Outcomes

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

1. Apply the principles and application of various digital technologies in the context of built environment
2. Apply knowledge in the review and development of 3D BIM models for design, fabrication and construction
3. Interpret digital documentation used within development approvals and building certification, tendering and construction
4. Apply BIM technologies to effectively manage the interface between design and construction processes, cost estimating, scheduling and control of construction projects

Subject Content

1. Overview of information technology in the built environment.
2. BIM execution plans
3. Create 3D BIM models

4. Construction scheduling and resource management using BIM
5. Digital document management
6. Design coordination using BIM
7. Cost estimating using BIM

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
Quiz	30 minutes (per Quiz)	30	N	Individual	N
Applied Project	BIM Model	30	N	Individual	N
Applied Project	1,500 words report and BIM model	40	N	Individual	Y

Teaching Periods

Autumn (2025)

Penrith (Kingswood)

On-site

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View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=BLDG4008_25-AUT_KW_1#subjects)

Parramatta - Victoria Rd

On-site

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Sydney City Campus - Term 3 (2025)

Sydney City

On-site

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