# BLDG 4008 DIGITAL CONSTRUCTION

**Credit Points** 10

**Legacy Code** 301225

**Coordinator** Srinath Perera (https://directory.westernsydney.edu.au/search/name/Srinath Perera/)

**Description** This subject offers knowledge and skills essential for a successful application of Building Information Modelling (BIM) in the context of built environment. Building Information Modelling (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. Virtual and augmented reality, spatial information capture and performance management systems will also be introduced. 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 HECS Band contribution amount via the Fees (https://www.westernsydney.edu.au/currentstudents/current_students/fees/) page.

**Level** Undergraduate Level 4 subject

**Assumed Knowledge**

Building construction including residential, light industrial and small commercial, basic building measurement and estimating.

## 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. Create 3D BIM models
3. Construction scheduling using BIM
4. Cost estimating using BIM
5. Design coordination using BIM
6. Introduction to other digital technologies
7. Digital document management

## 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 |
|---|---|---|---|---|
| Quiz | 2 x 30 minutes | 30 | N | Individual |
| Applied Project | BIM Model | 30 | N | Individual |
| Applied Project | 1,500 words and BIM model | 40 | N | Individual |

Teaching Periods

# Autumn (2022)
## Penrith (Kingswood)
**Evening**

**Subject Contact** Srinath Perera (https://directory.westernsydney.edu.au/search/name/Srinath Perera/)

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=BLDG4008_22-AUT_KW_E#subjects)

## Parramatta - Victoria Rd
**Day**

**Subject Contact** Srinath Perera (https://directory.westernsydney.edu.au/search/name/Srinath Perera/)

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=BLDG4008_22-AUT_PS_D#subjects)

# Autumn (2023)
## Penrith (Kingswood)
**On-site**

**Subject Contact** Srinath Perera (https://directory.westernsydney.edu.au/search/name/Srinath Perera/)

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=BLDG4008_23-AUT_KW_1#subjects)

## Parramatta - Victoria Rd
**On-site**

**Subject Contact** Srinath Perera (https://directory.westernsydney.edu.au/search/name/Srinath Perera/)

View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=BLDG4008_23-AUT_PS_1#subjects)