BLDG 4008 DIGITAL CONSTRUCTION

Credit Points 10

Legacy Code 301225

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

Description This unit 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 unit 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.

Item	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

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

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