BLDG 3016 WORK-INTEGRATED LEARNING IN ADVANCED DIGITAL CONSTRUCTION

Credit Points 20

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Description As increased digitalisation drives the construction industry, this unit engages students in industry project-based learning related to Advanced Digital Construction. Students will select a project with an agreed industry partner, which involves or anticipates involvement in any of the following advanced digital construction applications: BIM, e-procurement and tendering, smart contracts, robotics, drones, artificial intelligence, virtual reality, IoT, additive manufacturing (3D) and digital twins. This unit contributes towards the skills required for a work-ready graduate and allows the student to plan, undertake and report on a specific aspect of practice in the context of work.

School Eng, Design & Built Env

Discipline Building Construction Management

Student Contribution Band HECS Band 2 20cp

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

Level Undergraduate Level 3 subject

Restrictions

Students must be enrolled in 3782 Bachelor of Construction Management Advanced (Honours) AND have applied and selected by a partner organisation before enrolling in this subject.

Learning Outcomes

1. Manage various aspects of a project related to Advanced Digital Construction, including planning and implementation, to produce agreed deliverables that align with feedback
2. Conduct research on the theoretical basis of the selected advanced digital construction project demonstrating ethical, digital and information literacy
3. Reflect on the learning and professional development achievements related to the selected advanced digital construction project
4. Apply communication and collaboration skills through the selected advanced digital construction project and the workplace
5. Demonstrate application of advanced technical and digital tools for project management
6. Adapt to change, uncertainty and challenges with innovative and justifiable solutions for the industry

Subject Content

Students will learn how to manage a project on any of the following advanced digital construction practices, along with relevant theoretical knowledge through research:

- BIM,
- e-procurement/ tendering,
- smart contracts,
- robotics,
- drones,
- artificial intelligence,
- virtual reality,
- IoT,
- 3D printing,
- digital twins.

Work integrated learning

In the WIL Subjects in the 3782 course, each student has an academic supervisor and an industry supervisor to undertake a negotiated WIL activity that aligns with the given WIL theme within a workplace. Students will be recruited by agreed industry partners to their organisation through a selection process after their first year to undertake these WIL units with an agreement to co-design and co-deliver the units with quality assurance in place.

Special Requirements

Essential equipment

Students are required to meet the WHS requirements of the worksite

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
Proposal	1000 words	20	N	Individual
Presentations	15minutes (each)	20	N	Individual
Report	3000 words plus an agreed deliverable	30	N	Individual
Applied Project	2 pages	30	N	Individual

Teaching Periods