

Subject Description Form

Subject Code	CSE2707/IC2707
Subject Title	Building Information Modelling (BIM) Basic & Structure
Credit Value	1 Training Credit
Level	2
Pre-requisite/ Co-requisite/ Exclusion	Nil
Objectives	This subject aims to: 1. Provide students with knowledge of Building Information Modelling (BIM); 2. Equip students with the techniques to create architectural and structural BIM models; and 3. Enable students to prepare construction documents from BIM models.
Intended Learning Outcomes	Upon completion of the subject, students will be able to: 1. Understand the concept and definition of BIM; 2. Comprehend BIM software for architectural and structural BIM model creation; and 3. Generate construction drawings and documentation from the BIM model to communicate with architectural and structural disciplines.
Subject Synopsis/ Indicative Syllabus	<u>BIM Basic</u> • Introduction of the basic concept of BIM and BIM software; preparation of building information model with various architectural components (e.g., walls, doors, windows, roofs. etc); and • Generate construction drawings and documentation with components, including different project views and schedules. <u>BIM Structure</u> • Create and manage structural BIM Models with various structural components (e.g., Reinforced Concrete, Structural Steel); and • Generate structural design drawings and documentations from structural BIM Models according to common BIM practice in Hong Kong.

Teaching/Learning Methodology	The subject will be delivered through the following learning methods: 1. Mini-lectures – provide students with the overall background knowledge required for understanding key issues related to key concepts, definitions and applications of BIM modelling. 2. Hands-on workshops – facilitate students to engage in hands-on modelling in real-world scenarios.																											
Assessment Methods in Alignment with Intended Learning Outcomes	<table><tr><th rowspan="2">Specific assessment methods/tasks</th><th rowspan="2">% weighting</th><th colspan="3">Intended subject learning outcomes to be assessed</th></tr><tr><th>a</th><th>b</th><th>c</th></tr><tr><td>1. Assignments</td><td>62%</td><td></td><td>✓</td><td>✓</td></tr><tr><td>2. Test</td><td>38%</td><td>✓</td><td>✓</td><td>✓</td></tr><tr><td>Total</td><td>100%</td><td colspan="3"></td></tr></table> Explanation of the appropriateness of the assessment methods in assessing the intended learning outcomes: • Assignments - In-class assignments are designed to encourage students to reflect on and apply the knowledge they have acquired during the mini-lectures. • Tests - Students' understanding of declarative knowledge is assessed through online multiple-choice tests.					Specific assessment methods/tasks	% weighting	Intended subject learning outcomes to be assessed			a	b	c	1. Assignments	62%		✓	✓	2. Test	38%	✓	✓	✓	Total	100%			
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1. Assignments	62%		✓	✓																								
2. Test	38%	✓	✓	✓																								
Total	100%																											
Student Study Effort Expected	Class contact:																											
	▪ Mini-lectures and hands-on workshops		30 Hrs.																									
	Other student study effort:																											
	▪ Self-learning		0 Hrs.																									
	Total student study effort		30 Hrs.																									
Reading List and References	• Hamad, Munir M. Autodesk Revit 2024 Architecture. Dulles, Virginia: Mercury Learning and Information, 2023. • Design Integration Using Autodesk Revit 2025 Architecture, Structure and MEP, Daniel John Stine, 2024 • Autodesk Revit 2025 Architecture Basics From the Ground Up, Elise Moss, 2024 • https://www.youtube.com/user/AutodeskBuilding • https://www.autodesk.com/support/technical/product/revit																											