



UNIVERSITI TEKNOLOGI MARA

BCT504: INDUSTRIALISED BUILDING SYSTEM (IBS)

Course Name (English)	INDUSTRIALISED BUILDING SYSTEM (IBS) APPROVED
Course Code	BCT504
MQF Credit	4
Course Description	This course introduces application of IBS towards our construction industry. Starting with introduction and basic concept of IBS, advantages and disadvantages towards construction. It also outlines five main types of IBS, method of installations and implementation of IBS with Modular Coordination.
Transferable Skills	1. Able to differentiate the processes of construction between IBS and Modular Coordination in construction industry; 2. Able to display the assembling skills related to construction process of IBS wall panel in construction industry; 3. Able to demonstrate teamwork skills in performing the IBS scoring system related to the construction drawing of the IBS building.
Teaching Methodologies	Lectures, Blended Learning, Case Study, Discussion, Presentation
CLO	CLO1 Differentiate the processes of construction between IBS and Modular Coordination in construction industry. CLO2 Display the assembling skills related to construction process of IBS wall panel in construction industry. CLO3 Demonstrate teamwork skills in performing the IBS scoring system related to the construction drawing of the IBS building.
Pre-Requisite Courses	No course recommendations
Topics	
1. 1.0 Introduction To IBS 1.1) • Definition of IBS 1.2) • Advantage and disadvantages of IBS 1.3) • Open System and Closed System 1.4) • Application of IBS in Project 1.5) • Government Circular on IBS	
2. 3.0 Introduction to Modular Coordination 2.1) • Modular Design Rules (MS1064) 2.2) • Modular Design Concept 2.3) • Joint & Tolerances For Building Construction. 2.4) • Regulation of UBBL 1984 2.5) • Modular Checker Software	
3. 5.0 Conventional Construction vs. IBS 3.1) • Comparison based on 5M concept	
4. 2.0 Design of IBS Component 4.1) • Precast Concrete Frame, Panel & Box system, 4.2) • Prefabrication Timber Framing System, 4.3) Block work System, 4.4) • Steel Formwork and Framing System 4.5) • Method of Handling, Stacking and transportation of each type of IBS. 4.6) • Provision for installation of M&E services.	
5. 4.0 IBS Scoring System 5.1) • Introduction of IBS Scoring system to measure of IBS usage in building projects.	
6. 6.0 Construction Industry of Standard.(CIS 8 – CIS 13) 6.1) Construction Industry of Standard.(CIS 8 – CIS 13)	

Assessment Breakdown		%	
Continuous Assessment		100.00%	

Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Assignment	Video presentation	10%	CLO3
	Assignment	Video recording	30%	CLO2
	Assignment	Online slide presentation	30%	CLO3
	Test	Online	30%	CLO1

Reading List	Recommended Text	Reference Book Resources
	<ul style="list-style-type: none"> • Construction Industry Development Board Malaysia 2018, <i>CIS 18:2018 Manual for IBS content scoring system (IBS Score)</i>, CIS 18: 2018 Ed., CIDB Malaysia Kuala Lumpur, Malaysia • Trikha, D., N., & Abang Abdullah, A., A. 2004, <i>Industrialised Building Systems</i>, Universiti Putra Malaysia Press. UPM. 	<ul style="list-style-type: none"> • CIDB 2006, <i>Industrialised Building System In Malaysia</i>, Construction Technology Development Division. CIDB Malaysia. • Chudley, R., & Greeno 2006, <i>Advanced Construction Technology</i>, 4th Edition Ed., Pearson Prentice Hall. • Ching, F., D., K 2008, <i>Building Construction Illustrated</i>, 4th Edition Ed., John Wiley & Sons • Emmitt, S., & Gorse, C., A 2011, <i>Barry's Introduction To Construction Of Buildings</i>, 2nd Edition Ed., Wiley-Blackwell. • CIDB 2009, <i>Modular Design Guide</i>, 4th Edition Ed., CIDB Malaysia.

Article/Paper List	This Course does not have any article/paper resources
Other References	This Course does not have any other resources