



UNIVERSITI TEKNOLOGI MARA

AAR651: CONSTRUCTION TECHNOLOGY V

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| <b>Course Name (English)</b>  | CONSTRUCTION TECHNOLOGY V <b>APPROVED</b>  |
| <b>Course Code</b>  | AAR651   |
| <b>MQF Credit</b>   | 3  |
| <b>Course Description</b>   | A study on the specialised construction techniques of Industrialised Building System (IBS). The aspects encompass the various systems currently practiced and the underlying principles, modular coordination and assembly drawings, as well as factory production and site assembly. A study will be done on buildings that relate to the design task current design studio and marked independently under this course. |
| <b>Transferable Skills</b>  | Tech-savvy<br>Systematically inquisitive   |
| <b>Teaching Methodologies</b>   | Lectures, Field Trip, Case Study, Tutorial   |
| <b>CLO</b>  | CLO1 Adhere the application of the concept of dimensional and modular coordination in IBS constructional design.<br>CLO2 Describe the requirements and application of IBS and its related material commonly used in building construction.<br>CLO3 Differentiate complexity of IBS construction through various architectural representation.  |
| <b>Pre-Requisite Courses</b>  | No course recommendations  |
| <b>Topics</b>   |  |
| <b>1. Industrialised Building System - Introduction</b><br>1.1) N/A   |  |
| <b>2. Industrialised Building System - Various Categories</b><br>2.1) N/A   |  |
| <b>3. Industrialised Building System - Precast Construction</b><br>3.1) N/A   |  |
| <b>4. Industrialised Building System - Application of the Concept of Dimensional and Modular Coordination in Design</b><br>4.1) N/A |  |
| <b>5. Industrialised Building System - Prefabrication Cladding System</b><br>5.1) N/A   |  |
| <b>6. Industrialised Building System - Other Related Materials</b><br>6.1) N/A  |  |
| <b>7. Industrialised Building System - Prefabricated &amp; Heavily Service Spaces in Building</b><br>7.1) N/A                       |  |

| Assessment Breakdown  | %      |
|-----------------------|--------|
| Continuous Assessment | 40.00% |
| Final Assessment      | 60.00% |

| Details of Continuous Assessment | Assessment Type | Assessment Description   | % of Total Mark | CLO  |
|----------------------------------|-----------------|--|-----------------|------|
|                                  | Assignment      | Assessment on integrating the application of the concept of dimensional and modular coordination in IBS constructional design within the design project. | 20%             | CLO1 |
|                                  | Assignment      | Assessment on the ability to differentiate in group task the complexity of IBS construction through various architectural representation.                | 20%             | CLO3 |

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| Reading List       | Reference Book Resources  | <ul style="list-style-type: none"> <li>• N.Rajagopalan 2006, <i>Bridge superstructure</i>, Alpha Science International</li> <li>• Takahashi, S. 2000, <i>Precast Concrete Technology For Engineers</i>, Politeknik Shah Alam, Selangor.</li> <li>• Addleson, L. 1992, <i>Building Failures, A Guide To Diagnosis, Reme</i>, Butterworth-Heinemann</li> <li>• Groak, S. 1992, <i>Idea of Buildings</i>, London, E. &amp; F.N. Spoon</li> <li>• Maxley, R. 1992, <i>Building Management By Professional</i>, Butterworth-Heinemann</li> </ul> |
| Article/Paper List | This Course does not have any article/paper resources   |   |
| Other References   | <ul style="list-style-type: none"> <li>• Website CIDB Malaysia 2014, <i>An introduction to IBS and CIDB Roadmap Malaysia</i><br/> <a href="http://www.ibscentre.com.my">http://www.ibscentre.com.my</a> </li> </ul> |   |