UNIVERSITI TEKNOLOGI MARA

BCT643: INDUSTRIALISED BUILDING MAINTENANCE

Course Name (English)	INDUSTRIALISED BUILDING MAINTENANCE APPROVED
Course Code	BCT643
MQF Credit	3
Course Description	the general aim of this course is to provide sufficient knowledge and understanding of the principal in IBS building maintenance and other works related to it. The course covers the general view on IBS building pathology, maintenance, building failures and repairs, legislation and conservation. It's also covers basic principles of IBS forensic technology.
Transferable Skills	Student will be able to be an IBS Building's maintenance technologist.
Teaching Methodologies	Lectures, Case Study, Tutorial, Presentation
CLO	CLO1 Explain the fundamental principles of IBS maintenance technology. CLO2 Determine the problems associated to IBS maintenance technology. CLO3 Demonstrate teamwork skills in delivering oral presentation on process of maintenance and remedial works in relation to IBS maintenance technology.
Pre-Requisite Courses	No course recommendations

Topics
1. introduction 1.1) General overview on IBS Buildings and Infrastructures 1.2) Application and installation
2. Building Pathology 2.1) Introduction 2.2) Factors effecting deterioration of construction 2.3) Material and component 2.4) Agent of degradation and decay 2.5) Treatment of materials and components 2.6) Investigation procedures 2.7) Management of decay and health in building
3. Building Maintenance 3.1) Introduction 3.2) Building maintenance life cycle 3.3) Types of maintenance 3.4) Condition survey 3.5) Maintenance manuals
4. Building Failures and Repairs 4.1) Introduction 4.2) Structural and geotechnical failures 4.3) Inspection, diagnosis and testing 4.4) Structural repair methods
5. Legislation 5.1) Systematic reporting & presentation of findings in legal litigation 5.2) Malaysian Professional Engineers' Code of Ethics as outlined by Board of Engineers Malaysia (BEM); legal implications of construction failure
6. Building conservation 6.1) Introduction 6.2) Building conservation guidelines and principles 6.3) Building conservation approach and techniques

Assessment Breakdown	%
Continuous Assessment	50.00%
Final Assessment	50.00%

Details of Continuous Assessment

Assessment Type	Assessment Description	% of Total Mark	CLO
Assignment	Building Failures and Repairs Building Conservation	30%	CLO2
Presentation	Building Pathology	10%	CLO3
Test	IBS Building Maintenance	10%	CLO1

Reading List

Reference Book Resources

- **Bryan, T. 2010, *Construction Technology: Analysis and Choice*, Blackwell Publishing**
- **Chudley, R., & Greeno, R. 2010, *Building Construction Handbook*, 8th Edition Ed., Butterworth Heinemann Publication**
- **Brian, W. 2009, *Building Maintenance*, Wiley-Blackwell Chichester, U.K.**
- **Chudley, R., & Greeno, R. 2008, *Advanced Construction Technology*, 4th Edition Ed., Pearson Education Limited**
- **Chanter, R. & Swallow, P. 2007, *Building Maintenance Management*, 2th Edition Ed., Blackwell Publishing**
- **Jian, C., et al. 2005, *Geotechnical Engineering for Disaster Mitigation and Rehabilitation*, 1st Edition Ed., World Scientific Publishing Co. Pte. Ltd**

Article/Paper List: This Course does not have any article/paper resources

Other References: This Course does not have any other resources