



UNIVERSITI TEKNOLOGI MARA

ARK721: COMPUTER AIDED ARCHITECTURAL DESIGN II

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| Course Name (English) | COMPUTER AIDED ARCHITECTURAL DESIGN II APPROVED |
| Course Code | ARK721 |
| MQF Credit | 2 |
| Course Description | In this subject students are introduced to Computer Aided Design (CAD) software as designing tool. The program will commence with basic introduction to two-dimensional drawing and proceed to a more complex three-dimensional design and rendering techniques. Assignments begin with simple graphic exercise and proceed to major projects. These assignments include drawing exercises of selected project using CAAD software. |
| Transferable Skills | Creative and Innovative Tech-Savvy Expert in Field |
| Teaching Methodologies | Lectures, Lab Work, Tutorial |
| CLO | CLO1 Formulate architectural models using architectural software. CLO2 Demonstrate ability to communicate critically an architectural design using a computer based tool. |
| Pre-Requisite Courses | No course recommendations |
| Topics | |
| 1. The development of computers and their peripherals. 1.1) n/a | |
| 2. Overview of Computer Aided Architectural Design software. 2.1) N/A | |
| 3. Laboratory Tutorials 3.1) A. Working in 2D 3.2) Basic understanding of two-dimensional drawing methods. 3.3) B. Working in 3D 3.4) i) 3D Models 3.5) Types of 3D Models 3.6) Coordinate System in 3D (UCS, WCS) 3.7) Creating 3D Model (wire frame, surface, solid) 3.8) Views in 3D Drawing. 3.9) Dynamic View 3.10) ii) Plotting and Image Handling Technique 3.11) iii) Materials 3.12) iv) Camera 3.13) v) Animation 3.14) vi) Lighting 3.15) Video post 3.16) Rendering techniques 3.17) a) Render 3.18) b) Environment | |
| 4. File Management 4.1) N/A | |
| 5. File Transfer - DXF Format, BMP, TIFF 5.1) N/A | |
| 6. Presentation 6.1) Slide shows and animation 6.2) Multimedia techniques | |

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| Assessment Breakdown | | % | | |
| Continuous Assessment | | 100.00% | | |
| Details of Continuous Assessment | Assessment Type | Assessment Description | % of Total Mark | CLO |
| | Assignment | Assignment 1 | 30% | CLO1 |
| | Assignment | Assignment 2 | 70% | CLO2 |
| Reading List | Recommended Text | <ul style="list-style-type: none"> • Ethier, s.J. and Ethier, 2001, <i>3D Studio Max in Motion Basics Using Release 3.1</i>, Prentice Hall. • Kewlow, I.V., and Resobush, J 1990, <i>Computer Graphics For Designers and Artists</i>, N.Y., V.N.R. • New Riders, Indianapolis. 2000, <i>3D Studio MAX 3 Magic</i>, Abouaf, J • Mohler, J. L 2000, <i>Graphic Animation and Interactivity with Flash 4.0.</i>, Delmer, Africa. • Richens, P 1991, <i>MicroCad Software Evaluated</i>, London, Construction Industry Computer Assoc. | | |
| Article/Paper List | This Course does not have any article/paper resources | | | |
| Other References | This Course does not have any other resources | | | |