



UNIVERSITI TEKNOLOGI MARA

BTP113: COMPUTER AIDED TECHNICAL DRAWING

Course Name (English)	COMPUTER AIDED TECHNICAL DRAWING APPROVED
Course Code	BTP113
MQF Credit	2
Course Description	The main purpose of this subject is to provide an understanding to the student, the needs and the importance of computer applications (AutoCAD) to town planning and design. This subject was focus on computer aided design and drafting. The students are expected to be able to draw a 2-D and 3-D digital layout plans using a CAD software (e.g. AUTOCAD, DATACAD, or FASTCAD)
Transferable Skills	Demonstrate ability to identify and articulate self skills, knowledge and understanding confidently and in a variety of contexts. Demonstrate ability to manage personal performance to meet expectations and demonstrate drive, determination, and accountability.
Teaching Methodologies	Lectures, Tutorial
CLO	CLO1 Able to take advantages of computer AutoCAD software program to create drawings from scratch to modify, manipulate, copy, delete, save, and plot drawings CLO2 Able to use the full range of AutoCAD commands and options; use the keyboard, toolbar, and menu interfaces CLO3 Able to create 2-D and 3-D drawings
Pre-Requisite Courses	No course recommendations
Topics	
1. Introducing AutoCAD 1.1) The AutoCAD advantage 1.2) Using AutoCAD and DWG files 1.3) Start-up procedures - setup unit set area. 1.4) Understanding The AutoCAD window	
2. Creating And Opening the drawing 2.1) Opening an existing drawing 2.2) Starting a new drawing (using menu bar, keyboard and digitizer) 2.3) Saving the current drawing	
3. Entering data 3.1) Setup drawing area 3.2) Coordinate entry 3.3) Specifying distance and angle	
4. Creating a 2-D Plan 4.1) Setting-up work area and drawing scales. 4.2) Using the AutoCAD Modules as planning tools. 4.3) Drawing process. 4.4) Planning and laying out a drawing. 4.5) Plotting and printing.	

5. Introduction to 3D Drawing

- 5.1) Wire frame, surface and solid models
- 5.2) 3-D coordinate entry
- 5.3) 3-D viewing commands
- 5.4) Creating solid and editing in 3-D
- 5.5) Rendering
- 5.6) Generate 3-D models from 2-D layout plan on-screen presentations

6. CAD Project I

- 6.1) Producing a complete layout plan, cross-section, perspective view and other presentation methods as part of the individual coursework requirements.

7. Assignments

- 7.1) n/a

Assessment Breakdown		%		
Continuous Assessment		100.00%		
Details of Continuous Assessment	Assessment Type	Assessment Description	% of Total Mark	CLO
	Assignment	n/a	100%	CLO1 , CLO2 , CLO3
Reading List	Reference Book Resources	<ul style="list-style-type: none"> • Autodesk, 2002, <i>AutoCAD Release 12</i> , Ed., , Users Guide, Autodesk USA [ISBN:] • AutoCAD Training Guide 2002, . • David Byrnes And Mark Middlebrook 2006, <i>AutoCAD 2007 For Dummies</i>,, Ed., , Wiley Publication, USA. [ISBN:] • Geostch, David And Raymond, L.Richman 1990, <i>Computer Aided Drafting</i> , Ed., , AutoCAD Merril Punishing Co. USA. [ISBN:] • Middlebrook, M 2004, <i>AutoCAD 2004 for Dummies.</i>, Ed., , Wiley Pub USA [ISBN:] • Finkelstein, E 2002, <i>AutoCAD 2002 Bible.</i>, Ed., , Wiley Publishing, Inc. New York [ISBN:] • Finkelstein, E 2004, <i>AutoCAD 2005 and AutoCAD LT 2005</i> , Ed., , Bibble, Wiley Pub. Inc.Indiana [ISBN:] • Allen L 2002, <i>AutoCAD 2002-Inside and Out.</i>, 2 Ed., , CMP Book, Lawrence. [ISBN:] • Bell M 2005, <i>CADTutor, accessed on 25th December 2005.</i>, Ed., , http://www.cadtutor.net [ISBN:] • Iskandar Ab Rashid Dan Zaiton Ismail 2002, <i>AutoCAD 2002 Langkah Demi Langkah</i>,, Ed., , Venyon Publishing Malaysia. 		
Article/Paper List	This Course does not have any article/paper resources			
Other References	This Course does not have any other resources			