



FAKULTI TEKNOLOGI DAN KEJURUTERAAN

PROGRAM	DIPLOMA IN GRAPHIC DESIGN
COURSE NAME	TECHNICAL DRAWING
COURSE CODE	DGL 1013
CREDIT HOUR	3
SYNOPSIS	This course deals with three dimensional geometric drawings/models. From the 3D model, a 2D drawing comprised of plan views, elevation views and isometric views can be derived easily. The lab assignments will illustrate important concepts that need to be understood to deal with complex 3D modelling problem. Third party softwares will support this course.
COURSE STRUCTURE	
CHAPTER	TOPICS
1	MODULE 1: Introduction 1.1 Introduction and participant experience assessment. 1.2 Basic commands, entry and mouse/keyboard functions. 1.3 Creating basic geometry. 1.4 Editing and manipulating. 1.5 Geometry. 1.6 Attributes and properties. 1.7 Outputs.
2	MODULE 2: Attributes 1.1 Advanced text objects. 1.2 Creating tables. 1.3 Defining dynamic blocks and attributes. 1.4 Using external reference files and image files. 1.5 Creating sheet sets. 1.6 CAD Management and system setup. 1.7 Enhancing productivity with interface customization of AutoCAD.
3	MODULE 3: Creating Geometry and Editing 1.8 Points and lines 1.9 Circles, arcs and polygons. 1.10 Using object snaps. 1.11 Zoom and pan features. 1.12 Copy, offset, rotate. 1.13 Erase, trim, extend & grips.
4	MODULE 3: Creating Geometry and Editing 3.7 Layers, line types and colours 3.8 Inserting & text properties. 3.9 Adding dimensions. 3.10 Adding notes. 3.11 Saving and opening files. 3.12 Printing.



5	MODULE 4: Customizing AutoCAD 4.1 Creating macros and slideshows. 4.2 Creating line types and hatch patterns. 4.3 Creating shapes and fonts. 4.4 Workspaces. 4.5 Loading routines and applications. 4.6 Drawing maintenance & recovery.
6	MODULE 4: Customizing AutoCAD 4.7 Temporary files. 4.8 Repairing corrupted drawing files. 4.9 Using backup drawings. 4.10 Drawing recovery. 4.11 Recovery manager.
7	MODULE 5: Drawing Precision in AutoCAD 5.1 Using running object snaps. 5.2 Using object snap overrides. 5.3 Polar tracking at angles. 5.4 Object snap tracking. 5.5 Drawing with snap and grid (optional)
8	MODULE 6: Making Changes In Drawing 6.1 Selecting objects for editing. 6.2 Moving objects. 6.3 Copying objects. 6.4 Rotating objects.
9	MODULE 6: Making Changes In Drawing 6.5 Scaling objects. 6.6 Mirroring objects. 6.7 Editing with grips.
10	MODULE 7: Organizing Your Drawing with Layers 7.1 Creating new drawings with templates. 7.2 What are layers? 7.3 Layer states. 7.4 Changing an object's layers.
11	MODULE 8: Advanced Object Types 8.1 Drawing arcs. 8.2 Drawing polylines. 8.3 Editing polylines. 8.4 Drawing polygons. 8.5 Drawing ellipses.
12	MODULE 9: Advanced Editing Command 9.1 Trimming and extending. 9.2 Objects. 9.3 Stretching objects.



	9.4 Creating fillets and chambers. 9.5 Offsetting objects.
13	MODULE 9: Advanced Editing Command 9.6 Creating arrays of objects 9.7 What are blocks? 9.8 Inserting blocks. 9.9 Working with dynamic blocks. 9.10 Inserting blocks using design centre.
14	MODULE 10: Setting Up A Layout 10.1 Printing concepts. 10.2 Working in layouts. 10.3 Copying layouts. 10.4 Creating viewports. 10.5 Guidelines for layouts.
References:	1. 1. Ahmad Tarmizi. (2016). Panduan Pemula AutoCAD. Kuala Lumpur: SAM Synergy Sdn Bhd. 2. 2. AutoCAD 2016 For Beginners by CADFolks (April 11, 2015): Create Space Independent Publishing Platform.