FAKULTI TEKNOLOGI DAN KEJURUTERAAN

PROGRAM	3D Drawing
COURSE NAME	Diploma in Graphic Design
COURSE CODE	DGL 3013
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 problems. Third party software will support this course.
COURSE STRUCTURE	
CHAPTER	TOPICS
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	Attributes 2.1. Advanced text objects. 2.2. Creating tables. 2.3. Defining dynamic blocks and attributes. 2.4. Using external reference files and image files. 2.5. Creating sheet sets. 2.6. CAD management and system setup. 2.7. Enhancing productivity with interface customization of AutoCAD.
3	Creating Geometry and Editing 3.1. Points and lines. 3.2. Circles, arcs and polygons.

	3.3. Using object snaps. 3.4. Zoom and pan features. 3.5. Copy, offset, rotate. 3.6. Erase, trim, extend and grips.
4	Creating Geometry and Editing 4.1. Layers, line types and colors. 4.2. Inserting and text properties. 4.3. Adding dimensions. 4.4. Adding notes. 4.5. Saving and opening files. 4.6. Printing.
5	Customizing AutoCAD 5.1. Creating macros and slideshows. 5.2. Creating line types and hatch patterns. 5.3. Creating shapes and fonts. 5.4. Workspaces. 5.5. Loading routines and applications. 5.6. Drawing maintenance & recover
6	Customizing AutoCAD 6.1. Temporary files. 6.2. Repairing corrupted drawing files. 6.3. Using backup drawings. 6.4. Drawing recovery. 6.5. Recovery manager.
7	Drawing Precision in AutoCAD 7.1. Using running object snaps. 7.2. Using object snap overrides. 7.3. Polar tracking at angles. 7.4. Object snap tracking. 7.5. Drawing with snap and grid (optional).

8	Making Changes in Drawing 8.1. Selecting objects for editing. 8.2. Moving objects. 8.3. Copying objects. 8.4. Rotating objects
9	Making Changes in Drawing 9.1. Scaling objects. 9.2. Mirroring objects. 9.3. Editing with grips.
10	Organizing Your Drawing with Layers 10.1. Creating new drawings with templates. 10.2. What are layers? 10.3. Layer states. 10.4. Changing an object's layer.
11	Advanced Object Types 11.1. Drawing arcs. 11.2. Drawing polylines. 11.3. Editing polylines. 11.4. Drawing polygons. 115. Drawing ellipses.
12	Advance Editing Commands 12.1. Trimming and extending. 12.2. Objects. 12.3. Stretching Objects. 12.4. Creating fillets and chamfers. 12.5. Offsetting objects.
13	Advance Editing Commands 13.1. Creating arrays of objects. 13.2. What are blocks? 13.3. Inserting blocks. 13.4. Working with dynamic blocks. 13.5. Inserting blocks using design centre.

14	**Setting up a layout** 14.1. Printing concepts. 14.2. Working in layouts. 14.3. Copying layouts. 14.4. Creating viewports. 14.5. Guidelines for layouts.
References:	1. *Immersive 3d Design Visualization: With Autodesk Maya And Unreal Engine 4 : Kumar, Abhishek : 2020/12 : Isbn 9781484265963*