GLOBAL LEARNING INSTITUTE

Course: **AutoCAD 2025 – 2D Drafting (Level 2)**

Contact Hours: **30**

Pre-requisite: **AutoCAD 2025 – Essentials and Intermediate (Level 1)**

Abstract

The primary objective of this courseware is to provide outstanding instruction for learners in intermediate and advanced skills in the form of top-notch training and development for those already working in their field, and clear, serious education for those aspiring to become professionals.

Target Audience

- Engineers
- Students
- Draftsman
- Surveying Technicians

Learning Outcomes

On completion of this course, learners will be able to:

1. Use Attributes
2. Copy Existing Drawings from Other Sources
3. Use Advanced Editing and Organizing
4. Layout the Printer Output
5. Make Smart Drawings with Parametric Tools
6. Use Dynamic Blocks
7. Drawing Curves
8. Get and Exchange Data from Drawings
9. Customize Toolbars, Menus, Line types, and Hatch Patterns
10. Manage and Share Drawings

Course Content

1. Use Attributes

- Creating Attributes
- Editing Attributes
- Extract and export Attribute information

2. Copy Existing Drawings from Other Sources

- Convert paper drawings to CAD files
- Import a raster image
- Working with a raster image and PDF files

3. Use Advanced Editing and Organizing

- Use External references (Xrefs)
- Manage Layers
- Use advanced tools: Filter & Quick Select
- Use the QuickCalc calculator

4. Layout the Printer Output

- Understand Model Space and Paper Space
- Work with Paper Space viewports
- Create odd-shaped viewports
- Understand line weight, line type in paper space

5. Make Smart Drawings with Parametric Tools

- Use parametric drawing tools
- Connect objects with geometric constraints
- Control sizes with dimensional constraints
- Use formulas to control dimensions
- Put constraints to use

6. Use Dynamic Blocks

- Work with Block Editor
- Create a dynamic block
- Add actions to a parameter
- Add multiple parameters
- Create multiple shapes in one block

7. Drawing Curves

- Create and edit polylines
- Create a polyline spline curve
- Create and edit true spline curves
- Mark divisions on curves

8. Get and Exchange Data from Drawings

- Find the area of closed boundaries
- Get general information
- Use DXF file format to exchange data
- Use OLE to import data

9. Customize Toolbars, Menus, Line types, and Hatch Patterns

- Customize the User Interface
- Create macros
- Edit keyboard shortcuts
- Create custom line types
- Create hatch patterns

10. Manage and Share Drawings

- Share drawings over the Internet
- ePublish your drawings
- Use Design Center, Tool Palettes
- Search your drawing library
- Convert multiple layer settings

Assessment Criteria

In order to achieve Learning Outcome…	The Learner must…
1. Using Attributes	Be able to use a drawing and create data within the existing blocks that can be extracted to other software packages.
2. Copying Existing Drawings	Utilize a given drawing and be able to convert the paper file to a digital copy. Using a variety of techniques.
3. Advanced Editing	Navigate through a simple cad file and demonstrate how a multistory project can be created from simple blocks.
4. Laying out your Printer	Setup the viewports, scales and layouts that are annotated appropriately, followed by a plot that is incorporating a plot style.
5. Parametric Tools	Take any given drawing and add parametric tools through which modification of the said drawing can be facilitated easily and quickly under observation by the instructor.
6. Use Dynamic Blocks	Make a block that can be enlarged or reduced in a manner that will turn it into a separate design of the block and should save time and increase efficiency.
7. Drawing Curves	Make polylines and edit them to fulfill the requirements necessary for a variety of situations.
8. Exchanging Data	Create data files and exchange them and edit them in AutoCAD.
9. Customizing Toolbars	Be able to add buttons to a toolbar, create their own toolbar, and create their own button and line type and hatch pattern.
10. Managing & Sharing Drawings	Publish, share and manage multiple drawing files by adding password protection, hyperlinks and setup standards to compare other drawings.

Essential Learning Resources:

Textbook

Mastering AutoCAD 2017 and AutoCAD LT 2017: Autodesk Official Press – by George Omura

Websites

http://www.sbcs.edu.tt/
http://www.autodesk.com/