LEVEL – I (30 hours)

(INTRODUCTORY Objective)

To acquire basic skills on 2D Drawing.

• AutoCAD Overview

- Introduction to AutoCAD
- AutoCAD releases
- Loading AutoCAD
- Under landing Drawing Editor
- Drawing file management
- Multiple drawing support
- Sample drawing session

• AutoCAD Basic Drafting Skills

- The AutoCAD Coordinate Systems
- Methods of pointing
- Creation of Aut0CAD primitives
- Object Snap end Grid
- Basic object selection techniques
- Modifying objects
- Inquiry of objects
- Controlling large drawing
- Controlling multi-layering in projects
- Hatching Styles and Process
- Advanced Hatching Techniques

• Documentation

- Concept of Dimensioning
- Quick Dimensioning
- Dimension Commands
- Types of Dimensioning

• Plotting

- Overview of Plotting Device
- Plot setting in Aut0CAD
- Sample Output

- Project - 1 **Plan & Elevation**

LEVEL — 2 (INTERMEDIATE) 36 hours

Objective :-
To acquire intermediate skills on 2D Drawing

• Drawing symbois management
- Creation of Blocks
- Attributes - Concept and Definition
- Attribute Management
- Attribute Extraction

• Multiple Design Environment
- Multiple Drawing Management
- Sharing objects within Drawing
- Quick Select

• AutoCAD Design Centre (ADC)
- Find Tool
- Sharing resources among drawings

• Tool Palettes
- Tool Palettes Concept
- Customization and usage

• Intermediate Drawing Controls
- Multi Lines - Creation and Management
- Creation of isometric Drawings

• External Reference and Layouts
- External Reference Concept
- Multiple Reference of Drawings
- View ports - Concept and usage
- Using Layouts in Drawings

• Customisation of AutoCAD Environment

- Creation of Template Files
- Creation of AutoCAD menus
- Loading of Menu files
- Concept and use of System variables
- Dimension Style Manager

• Tables

- Creation and Management of Tables
- Importing contents of Tables

• Project – 2 :- Isometric Drawing

LEVEL - 3 (ADVANCED) 36 hours

Objective :-

To acquire advanced skills in 3D Modeling

• Introduction to 3D in AutoCAD

-Concept to AutoCAD 3D

- Layout of AutoCAD Drawing
- View port Management in 3D

• 3D Modeling in AutoCAD
- Wire frame Model Creation
- Surface Model Creation
- Solid Model Creation
- Point Filter control & applications

• 3D Viewing Skills

- DDV Point
- Dynamic View using 3D Orbit
- Generation of Perspectives

• Advanced 3D Modeling
- The World Coordinate System
- Concept of User Coordinate System
- Creation of objects using UCS
- Managing UCS per View port

• 3D Manipulation
- 3D Array of objects

- Boolean operations on Solids
- Solid Editing
- Generating Sections using Soldraw

• Presentation Techniques on 3D
- 3D Shading and Orbital animation using 3DOrbit
- Concept of Rendering
- Material application on objects and its effects
- Lighting Creation and effects
- Landscaping feature for Render
- Conversion of Rendered drawings into Raster images.

• Project – 3 :- 3D Modelling

- Creation of 3D architectural drawing.