AutoCAD syllabus

1: INTRODUCTION TO AUTOCAD

Starting AutoCAD

AutoCAD Screen Components
  - Drawing Area
  - Command Window
  - Navigation bar
  - Status bar

Invoking Commands in AutoCAD
  - Keyboard
  - Ribbon
  - Application Menu
  - Tool Palettes
  - Menu Bar
  - Toolbar
  - Shortcut Menu

AutoCAD Dialog Boxes

Starting a New Drawing
  - Open a Drawing
  - Start from Scratch
  - Use a Template
  - Use a Wizard

Saving Your Work

Save Drawing as Dialog box
  - Using the Drawing Recovery Manager to Recover Files

Closing a Drawing

Opening an Existing Drawing
  - Opening an Existing Drawing Using the Select File Dialog Box
  - Opening an Existing Drawing Using the Start up Dialog Box
  - Opening an Existing Drawing Using the Drag and Drop Method

Quitting AutoCAD

Creating and Managing Workspaces
  - Creating a New Workspace
  - Modifying the Workspace Settings
  - Autodesk Exchange

Home

2: GETTING STARTED WITH AUTOCAD

Dynamic Input Mode
  - Enable Pointer Input
  - Enable Dimension Input where possible
Drafting Tooltip Appearance
Drawing Lines in AutoCAD
The Close Option
The Undo Option
Invoking tools Using Dynamic INPUT/Command Prompt
Coordinate Systems
  Absolute Coordinate System
  Relative Coordinate System
  Relative Polar Coordinates
  Direct Distance Entry
  Erasing Objects
  Cancelling and Undoing a Command
Object Selection Methods
  Window Selection
  Window Crossing Method
  Drawing a Circle
  BASIC Display Commands
Setting Units Type and Precision
  Specifying the Format
  Specifying the Angle Format
SETTING the Limits OF A DRAWING

3: STARTING WITH ADVANCED SKETCHING

  Drawing Arcs
  Drawing Rectangles
  Drawing Ellipses
  Drawing Regular Polygon
  Drawing Polylines
  Placing Points
  Drawing Infinite Lines
  Writing a Single Line Text

4: WORKING WITH DRAWING AIDS

  Introduction
  Understanding the Concept and use of LAYERS
    Advantages of Using Layers
  Working with Layers
    Creating New Layers
    Making a Layer Current
    Controlling the Display of Layers
    Deleting Layers
  Object Properties
    Changing the Colour
Changing the Line type
Changing the Line weight
Changing the Plot Style
Properties Palette
Quick Properties Palette
Drafting Settings dialog box
Setting Grid
Setting Snap
Snap Type
Drawing Straight Lines using the Ortho Mode
Working with Object Snaps
Auto Snap
Endpoint
Midpoint
Nearest
Centre
Tangent
Quadrant
Intersection
Apparent Intersection
Perpendicular
Node
Insertion
Snap to None
Parallel
Extension
From
Midpoint between 2 Points
Temporary Tracking Point
Combining Object Snap Modes
Running Object Snap Mode
Overriding the Running Snap
Cycling through Snaps
Using Auto Tracking
Object Snap Tracking
Polar Tracking
Auto Track Settings
Function and Control Keys

5: EDITING SKETCHED OBJECTS-I

Editing Sketches
Moving the Sketched Objects
Copying the Sketched Objects
Creating Multiple Copies
Creating a Single Copy
Offsetting Sketched Objects
Rotating Sketched Objects
Scaling the Sketched Objects
Filletting the Sketches
Chamfering the Sketches
Trimming the Sketched Objects
Extending the Sketched Objects
Stretching the Sketched Objects
Lengthening the Sketched Objects
Arraying the Sketched Objects
  Rectangular Array
  Polar Array
  Path Array
Mirroring the Sketched objects
  Text Mirroring

6: EDITING SKETCHED OBJECTS-II

Introduction to Grips
Types of Grips
  Editing a Polyline by Using Grips
  Editing Gripped Objects
  Changing the Properties Using the PROPERTIES Pale
  Matching the Properties of Sketched Objects
Cycling Through Selection
Managing Contents Using the Design enter
  Autodesk Seek design content Link
Displaying Drawing Properties
  Basic Display Options
  Redrawing the Screen
  Regenerating Drawings
Zooming Drawings
  Real-time Zooming
  All Option
  Centre Option
  Extents Option
  Dynamic Option
  Previous Option
  Window Option
  Scale Option
  Object Option
  Zoom In and Out
Panning Drawings
  Panning in Real time
7: CREATING TEXT AND TABLES

Annotative Objects
Annotation Scale
   Assigning Annotative Property and Annotation Scales
   Customizing Annotation Scale
Multiple Annotation Scales
   Assigning Multiple Annotation Scales Manually
   Assigning Multiple Annotation Scales Automatically
Controlling the Display of Annotative objects
Creating Text
   Writing Single Line Text
Entering Special Characters
Creating Multiline Text
   Text Window
   Text Editor Tab
Editing Text
   Editing Text Using the DDEDIT Command
   Editing Text Using the Properties Palette
   Modifying the Scale of the Text
Inserting Table in the Drawing
   Table style Area
   Insert options Area
   Insertion behaviour Area
   Column and row settings Area
   Set cell styles Area
Creating a New Table Style
   Starting table Area
   General Area
   Cell styles Area
   Setting a Table Style as Current
   Modifying a Table Style
   Modifying Tables
   Substituting Fonts
   Specifying an Alternate Default Font
Creating Text Styles
   Determining Text Height
   Creating Annotative text

8: BASIC DIMENSIONING, GEOMETRIC DIMENSIONING, AND TOLERANCING

Need for Dimensioning
Dimensioning in AutoCAD
Fundamental Dimensioning Terms
   Dimension Line
Dimension Text
Arrowheads
Extension Lines
Leader
Centre Mark and Centrelines
Alternate Units
Tolerances
Limits
Associative Dimensions
Definition Points
Annotative Dimensions
Selecting Dimensioning Commands
Using the Ribbon and the Toolbar
Using the Command Line
Dimensioning a Number of Objects Together

Creating Linear Dimensions
  DIMLINEAR Command Options
  Creating Aligned Dimensions
  Creating Arc Length Dimensions
  Creating Rotated Dimensions
  Creating Baseline Dimensions
  Creating Continued Dimensions
  Creating Angular Dimensions
  Dimensioning the Angle between Two Nonparallel Lines
  Dimensioning the Angle of an Arc

Angular Dimensioning of Circles
  Angular Dimensioning based on Three Points
  Creating Diameter Dimensions
  Creating Radius Dimensions
  Creating Jogged Linear Dimensions
  Creating Ordinate Dimensions
  Maintaining Equal Spacing between Dimensions

Creating Inspection Dimensions
  Inspection Label
  Dimension Value

Working with True Associative Dimensions
  Inspection Rate
  Removing the Dimension Associatively
  Converting a Dimension into a True Associative Dimension
  Drawing Leaders
  Multileader
  Adding leaders to existing Multileader
  Removing Leaders from Existing Multileader

Aligning Multileaders
Distribute
Make leader segments Parallel
Specify Spacing
Use current spacing

Geometric Dimensioning and Tolerance
Geometric Characteristics and Symbols
Adding Geometric Tolerance
  Feature Control Frame
  Geometric Characteristics Symbol
  Tolerance Value and Tolerance Zone Descriptor
  Material Condition Modifier
  Datum

Complex Feature Control Frames
  Composite Position Tolerance
  Projected Tolerance Zone
  Creating Annotative Dimensions, Tolerances, Leaders, and Multileaders

9: EDITING DIMENSIONS

Editing Dimensions Using Editing Tools
  Editing Dimensions by Stretching
  Editing Dimensions by Trimming and Extending
  Flipping Dimension Arrow
  Modifying the Dimensions
  Editing the Dimension Text
  Updating Dimensions
  Editing Dimensions with Grips
  Editing Dimensions using the Properties Palette
  Properties Palette (Dimension)
  Properties Palette (Multileader)
  Model Space and Paper Space Dimensioning

10: DIMENSION STYLES, MULTILEADER STYLES, AND SYSTEM VARIABLES

Using Styles and Variables to Control Dimensions
Creating and Restoring Dimension Styles
New Dimension Style dialog box
Controlling the Dimension Text Format
Fitting Dimension Text and Arrowheads
Formatting Primary Dimension Units
Formatting Alternate Dimension Units
Formatting the Tolerances
Creating and Restoring Multileader Styles
Modify Multileader Style dialog box
11: MODEL SPACE VIEWPORTS, PAPER SPACE VIEWPORTS, AND LAYOUTS

Model Space and Paper Space/Layouts
Model Space Viewports (Tiled Viewports)
  Creating Tiled Viewports
Making a Viewport Current
Joining Two Adjacent Viewports
Paper space viewports (Floating Viewports)
  Creating Floating Viewports
  Creating Rectangular Viewports
  Creating Polygonal Viewports
  Converting an Existing Closed Object into a Viewport
Temporary Model Space
Editing Viewports
  Controlling the Display of Objects in Viewports
  Locking the Display of Objects in Viewports
  Controlling the Display of Hidden Lines in Viewports
  Clipping Existing Viewports
  Maximizing Viewports
  Inserting Layouts
  Inserting a Layout Using the Wizard
  Defining Page Settings
  Controlling the Display of Annotative Objects in Viewports

12: PLOTTING DRAWINGS

Plotting Drawings in AutoCAD
Plotting Drawings Using the Plot Dialog Box
  Page setup Area
  Printer/plotter Area
  Paper size Area
  Number of copies Area
  Plot area
  Plot offset (origin set to printable area) Area
  Plot scale Area
  Plot style table (pen assignments) Area
  Shaded viewport options Area
  Plot options Area
  Preview
Adding Plotters
  The Plotter Manager Tool
Using Plot Styles
  Adding a Plot Style
13: HATCHING DRAWINGS

Hatching
  Hatch Patterns
  Hatch Boundary
Hatching Drawings Using the Hatch Tool
Panels in the Hatch Creation Tab
  Boundaries Panel
  Pattern Panel
  Properties Panel
  Origin Panel
  Options Panel
  Match Properties
  Setting the Parameters for Gradient Pattern
Creating Annotative Hatch
Hatching the Drawing Using the Tool Palettes
  Drag and Drop Method
  Select and Place Method
Hatching Around Text, Dimensions, and Attributes

14: WORKING WITH BLOCKS

The Concept of Blocks
  Advantages of Using Blocks
  Drawing Objects for Blocks
  Converting Entities into a Block
Inserting Blocks
Creating and Inserting Annotative Blocks
  Block Editor
Adding Blocks in Tool Palettes
  Drag and Drop Method
  Modifying Existing Blocks in the Tool Palettes
  Layers, Colours, Line types, and Line weights for Blocks
  Nesting of Blocks
Creating Drawing Files using the Write Block Dialog Box
  Exploding Blocks Using the XPL ode Command
  Renaming Blocks
  Deleting Unused Blocks
  Editing Constraints to Blocks