AutoCAD 2010- 2D

- Introduction to computer
- Introduction to AutoCAD
- Screen Layout.
- Limits, Units
- Dsettings- (Isoplane, Snap)

- Line,Circle,Arc,
- Erase, New, Open, Save, Save as
- Qnew
- Open
- Close
- Quit
- Polygon
- Move
- Copy
- Assist

- Array
- Break
- Mirror
- Offset
- Scale
- Rotate
- Solid
- Donut
- Limits
- Revcloud
- Trim, Extend, Stretch
- Text, Style
- Scaletext, Spell
- Mtext
- View, color, line type
- Zoom, Pan, View,
- Color
- Linetype

- Lineweight
- Layer, Laytrans
- Layerp, Properties, Matchprop
- B Hatch, hatch
- Pline, Pedit
- Fillet, Chamfer
- Editing with grips
- Id
- List, Dist, Area
- Lengthen
- Spline, Splineedit
- Mline, Mstyle
- Medit
- Dimensioning
- DimLinear
- DimAligned
- DimDiameter
- DimCenter
- DimAngular
- Dimbaseline
- Dimcontinue
- Dimordinate
- Qdim- 45 mins.
- Tolerance
- Leader
- QLeader
- Windows XP- Quick Tour
- Associative Dimensioning
- Dimreassociate
- Dimedit
- Dimstyle
- Dimoverride
- X-line
- Ray
- Test and Discussion
3D

- Knowing of Dimension
- Need of 3D Dimension
- Co-ordinate system in 3D
- Relative Cylindrical Co-ordinate System
- Relative Spherical Co-ordinate System
- Types of 3D model
- Construction of Wireframe Model
- Viewing of 3D Model in AutoCAD
- 3D Face
- Rulesurf
- Tabsurf
- Revsurf
- Edgesurf
- Edge
- 3D Poly
- Pface
- DdVpoint
- V Point
- V Ports
- Box
- Wedge
- Cylinder
- Cone
- Sphere
- Torus
- Extrude
- Revolve
- Union
- Substruct
- Intersect
- Interface

- Region
- User Co-ordinate System
- Moving the UCS
- Rotating the Co-ordinate system
- UCS
- Displaying the UCSICON
- UCS Man
- Working with Multiple Plan
- viewpoints in 3D
- 3D Array
- Mirror 3D
- Rotate 3D
- Align
- Slice
- Fillet
- Chamfer
- MassProd
- D View
- Trim
- Extend
- Solview
- Soldraw
- SolProf
- Solidedit
- 3D Orbit
- Camera
- Shademodel
- Rendering and Imaging
- Using 3d Image types
- Creating Rendered Images
- Preparing Models for Rendering
- Using lights in Rendering
- Render
• Understanding lighting principle
• Light
• Point Light
• Distance Light
• Spot Light
• Scene
• Matlab
• RMAT
• Rpref
• Saving
• Using Materials Blocks and Layer
• Replay
• Materials in 3D
• Setting Map style
• Mapping Projection types
• Set UV
• FOG

• Background
• LSnew
• LSendit
• Using Raster Image in the drawing
• LSip

• Image
• Image Attach
• Image Adjust

• Image Clip
• Image Frame
• Image Quality
• Transparency
• Draw order
• Export
• 3DS Out
• ACIS Out
• BMP Out
• PS Out
• STI Out
• WMF out
• Import
• 3DS In
• ACIS In
• WMF In
• D XB
• Conclusion & Doubt Session.
CATIA V5R19 – Curriculum

Introduction
Starting CATIA V5
CATIA User Interface
Specification Tree
Manipulating Objects
Objects Visualization
Saving and Closing Documents

Sketcher
Sketcher Geometry Management
Sketcher Constraints Management
Sketching simple profiles
Sketching predefined profiles
Sketch Analysis Tools

Part Design
Sketched features
  Pad
  Pocket
  Shaft
  Groove
Placed features
  Hole
  Fillet
  Chamfer
  Thickness
Transformation features
  Translate
  Rotation
  Mirror
  Pattern
  Scaling
Dress up features
Modifying parts

Assembly Design
Assembling components
Positioning components using constraints
Analyzing assembly
Editing parts in assembly
Exploding the assembly

**Wireframe and Surface Design**
- Introduction to Surface Design
- Creating wireframe geometry
- Creating basic surfaces
- Performing operations on the geometry
- Completing the geometry in part design
- Modifying the Geometry

**Generative Design**
- Starting a Drawing View Generation
- Additional View Generation
- Editing Views Layout and Properties
- Automatic Dimensioning a Part
- Finalizing the Drawing and Printing
- Setting Drafting Standards and Visualization

**Interactive Design**
- Definition and reuse of 2D components
- Dress up on 2D views

**Real Time Rendering**
- Environment management
- Camera management
- Light sources management
- Textures management
- Animation: Turntable management
- Animation: Animating scene elements

**CATIA V4 Integration**
- Introduction to V4 Integration
- Creating a CATProduct using V4 data
- Assembly of V4 data in a V5 CATProduct
- Transferring V4 data into V5 CATPart
- Design in context
- Drawing of a V4/V5 document in V5
CATIA V5 DMU solutions and V4 data
Links between V4 data and V5 documents

**Object Manager**
- Design Table external file management
- Graphical Properties wizard
- Management of resources
- External Application Integration
- Automation of repetitive tasks

**CATIA-IGES Interface**