

#1 Engineer's Software Training Centre

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## **UNIGRAPHICS SYLLABUS**

## 1. INTRODUCTION TO UG:

Introduction to UG Modeler.

## **2. PREPARING TO WORK:**

icon panel, File & options, List window & Prompt window, Function key.

View-Zoom/pan/Rotate.

# 3. CREATING 2D GEOMETRY

### **BASIC CURVES:**

Line, Arc, Circle, Trim Curve, Edit Curve, Parameter, Extend curve, Point, Point on curve, Off set curve, Fillet-Simple, Two .Curves, Three Curves, Chamfer, Project curve, Combined Curve, Wrap curve, Translate, Move /Copy, Rotate, Mirror, Array.

### **EDITING 2D ENTITIES:**

Edit Fillet, Trim/Extend, Trim Corner, Divide Curve, Stretch curve, Blank/Un-blank, Edit object Display.

#### **LAYERS:**

Layers Setting, Layer Category, Move/copy to Layer.

### **ADVANCE CURVES:**

Splines, Helix, Ellipse, Polygon, Extract Curve, Iso-Parametric Curve, Silhoutte Curves.

## **SKETCHER MODE**

### **CREATE SKETCH:**

Profile, Line, Arc, Circle, Ellipse, Derived Lines, Quick trim, Quick Extend, Fillet, Rectangle.

### **CONSTRAINING SKETCH:**

Dimensions, Create Constraints, Automatic Constraints Creation, Show all Constraints, Show No Constraints, Show/remove Constraints, Animate Dimension, Convert To/ From reference, Alternate Solution.

#### **SKETCH OPTIONS:**

Mirror, 3Offset Extracted Curves, Add Existing Curve, Add Extracted Curve.

# **4.**SOLID MODELING & SURFACING:

### FROM FEATURE:

Datum Planes, Datum Axis, Extrude Body, Revolved Body, Sweep Along-Guide, Tube, Block, Cylinder, Cone, Sphere.

## **INFORMATION & ANALYSIS:**

Object, Visualisation, Selection, Sketch, Drafting Modelling.

### **ADDITIONAL FEATURES:**

Boss, Pad, Pocket, Slot, groove, Extract, Bounded, Plane, Thicken-sheet, Selection Toolbar.

## **FEATURE OPERATIONS:**

Taper, Edge Blend, Chamfer, Hollow, Thread, instance, skew, offset, face, Scale, Split, Body, Trim body, Boolean operations - Unite, Substate, intersect.

### **MODEL NAVIGATOR:**

Edit parameter, Delete Feature, Move Feature, Recorder Feature, Replace Future, Make current, Suppress/Un suppress.

### FREE FROM FEATURE:

Through Points, From Poles, Through Curve Mesh, Swept, Bridge Surface, Extension, Enlarge, Offset Sheet, Mid Surface.

# **5.**ASSEMBLY:

#### **INTRODUCTION:**

Overview, Assembly Pull Down Menu, Assemblies Tool Bar, Add Existing Component, Create New Component, Create Component Array, Substitute Component.

### **Mate Component:**

Mate, Align, Angle, Parallel, Perpendicular, Centre, Distance, Tangent.

## **REPOSITION COMPONENT:**

Move, Rotate.

## **REFERENCE SETS:**

Explode Assembly, Suppress Component, Un-suppress Component, Make-Work Part.

## **6.**DRAFTING AND DETAILING:

### **INTRODUCTION:**

Drafting Preferences, Creating and editing of drawing Sheet, Open & Deleting drawing Sheet.

Add views, remove views, Move/Copy View, Align View, Edit View, Define View Boundary, Break out Section, Broken View, Display Drawing, Update Views, Simple Section Cut, Speed Section Cut, Half Section Cut, Revolved Section Cut, Older Section Cut. Dimension, Annotations, Utility Symbols, ID Symbols, User Defined Symbols, Custom Symbols, Cross Hatch, Tabular note, Ordinate Dimensioning.

## 7. PART FAMILIES

## 8. FILE IMPORT & EXPORT IN OTHER FORMATS.

## 9. THEROTICAL & BEHAVIORAL CLASSES

- INTRODUCTION TO UG
- DRAFT ANGLE KNOWLEDGE
- PARTING SURFACE AND LINES
- PRODUCT LIFE CYCLE
- DRAWING STANDARDS
- CASTING STANDARDS
- FORGING STANDARDS
- SHEET METAL DESIGN PARAMETERS
- GD&T
- VEHICLE PACKAGING

# WITH INDUSTRIAL LIVE PROJECTS