CATIA

Sessions	Topics
Session 1	• Introduction to CATIA V5 • Understanding View Manipulation
Session 2	• Introduction to Sketcher • Profile Creation Using • Understanding Sketch Tools • Creating Construction/ Standard Element • Applying Geometrical/ Dimensional Constraints • Understanding User Selection Filter toolbar • Understanding Visualization Toolbar
Session 3	• **Editing Profile using** • Corner • Chamfer • Relimitations • Transformation • 3D Geometry • **Understanding Constraints** • Constraints • Constraint Creation • Contact Constraint • Fix together • Auto Constraint • Animate Constraint • Edit Multi – Constraint • **Sketch Analysis**
Session 4	• **Introduction to Part Design** • **Creating Sketch-Based Features** • Pad Definition • Drafted Filleted Pad Definition • Pocket Definition • Drafted Filleted Pocket • Shaft Definition • Groove Definition • Hole Definition • **Creating Reference Element** • Plane Definition
Session 5	• **Creating Sketch-based Feature** • Rib Definition • Slot Definition • Stiffener Definition • Solid Combine Definition • **Applying Dress-Up Features** • Edge Fillet Definition • Variable Fillet Definition • Chordal Fillet Definition • Face-Face Fillet Definition • Tritangent Fillet Definition o Chamfer Definition .
Session 6	• **Creating Sketch-Based Features** • Multi-Sections Solid Definition • Removed Multi-Section Solid Definition • **Applying Dress-up Features** • Draft Definition • Draft Reflect Line Definition • Variable Angle Draft Definition • Shell Definition • Thickness Definition • Thread/Tap Definition

	• Remove/Replace Face Definition • **Creating Surface-Based Features** • Split Definition • Thick Surface Definition • Close Surface Definition ◦ Sew Surface Definition
Session 7	• **Creating Reference Element** • Point Definition • Line Definition • **Creating Transformation Features** • **Applying Boolean Operations**
Session 8	• **Inserting new bodies** • Body • Geometric Set • Ordered Geometrical Set • **Understanding Measure Toolbar** • Measure Between • Measure Item ◦ Measure Inertia
Session 9	• Formula • Relations • Design Table • **Apply Material** • **Understanding Knowledge Templates** ◦ **Data Exchange in CATIA**
Session 10	• **Introduction to Assembly Design** • Understanding Top Down & Bottom Up Approach • **Understanding Product Structure Tools** • New Component • New Product • New Part • Existing Component • Existing Component with Positioning • **Understanding Constraints Toolbar** • Coincidence Constraints • Contact Constraints • Offset Constraints • Angle Constraints • Fix Component • Fix Together • Quick Constraint • Flexible/Rigid Sub-Assembly • Change Constraint ◦ Reuse Pattern
Session 11	• **Understanding Move Toolbar** • Manipulation • Snap/Smart Move • Explode • Stop Manipulate on Clash • **Understanding Product Structure Tools** • Replace Component • Graph tree Reordering • Generate Numbering • Selective Load • Manage Representations • Multi Instantiation • **Assembly Features** • Split • Hole • Pocket • Add • Remove

	• Symmetry • **Applying Material** • **Creating Scenes** • Enhanced Scene • Scene browser • Applicative Entities Reordering • **Understanding Space Analysis Toolbar** ◦ **Understanding Catalogue Browser**
Session 12	• **Introduction to Sheet metal Design** • Understanding Sheet metal Parameters • **Understanding Views Toolbar** • Fold/Unfold • Multi viewer • Views Management • **Creating Walls** • Wall • Wall on Edge • Extrusion • Swept Walls- Flange, Hem, Tear Drop, User Flange • **Creating Rolled Walls** • Hopper • Free from Surface • Rolled Wall • **Understanding Bending Operations** • Bend / Conical Bend • Bend from Flat • Unfolding/ Folding • Point or Curve Mapping ◦ **Recognize Definition**
Session 13	• **Understanding Cutting Operations** • **Understanding Stamping Operations** • **Understanding Transformation Operations** • **Understanding Manufacturing Preparation** • Check Overlapping • Save as DXF
Session 14	• **Wireframe and Surface Design** • **Introduction to Surface Design** • **Understanding Wireframe Toolbar** • Point, Point and Planes Repetition • Line, Axis, Polyline • Plane, Planes Between • Projection • Intersection • Circle, Corner, Connect • Spline, Helix • **Creating Surfaces** • Extruded Surface Definition • Revolution Surface Definition • Sphere Surface Definition ◦ **Trim & Split Definition**
Session 15	• **Creating Surfaces** • Cylinder Surface Definition • Offset Surface Definition • Fill Surface Definition • Multi-Sections Surface Definition • Blend Definition • **Understanding Operations Toolbar** • Join • Healing • Untrim ◦ Disassemble
Session 16	• **Creating Sweep Surface**

	• Swept Surface Definition using profile type: - Explicit, Line, Circle, Conic • **Understanding Operations Toolbar** • Extract • Transformations Commands • Extrapolate
Session 17	• **Introduction to Drafting** • **Creating New Drawing File** • **Creating Projection Views** • Front view • Un folded view • View from 3D • Projection • Auxiliary • Isometric • Advanced Front view • **Creating Sectional Views** • Offset Section view • Aligned Section view • Offset Section Cut o Aligned Section Cut
Session 18	• **Creating Details Views** • Detail • Sketched Detail Profile • Quick Detail • Sketched Quick Detail Profile • **Creating Clipping View** • Clipping • Sketched Clipping Profile • Quick Detail • Sketched Quick Clipping Profile • **Creating Broken View** • **Creating Broke out View** • **Add 3D Clipping** • **Creating Wizard** • **Adding Drawing Sheets** • Sheets • New View • **Deriving Annotations** • Generate Dimension • Generate Dimension Step by Step • Balloon Creation • Bill of Materials
Session 19	• **Applying Dimensioning** • Creating Dimensions Using dimensions subToolbar • Dimension Edition Using Re-route dimension Sub-toolbar • Understanding Tolerancing Sub-Toolbar • **Understanding Annotations Toolbar** • **Understanding Dress up Toolbar** • **Understanding Geometry creation Toolbar** o **Understanding Geometry modification Toolbar**
Session 20	• **Inserting Frame and Title Block** • **Understanding Positioning Toolbar** • Element Positioning • Line up o Align into system