



## Mechanical Designer Professional

**Duration: 1 Year**

(100% Placement Assistance)

### Course 1: AutoCAD Mechanical (40 Days)

**Content:** Introduction To CAD, Understanding Drawings, Creating Geometry Tool, Manipulating Geometry Tool, Object Property & Layer Management, Mechanical Part Generators, Creating Drawing Sheets, Dimensioning And Annotating Drawing, File Management, Introduction to 3D

**Live Project**

### Course 2: Computer Aided Design (CAD) using Fusion 360

**Content: CAD Part,** 2D Sketching: Sketch, Constraints and Dimensions, 3D modeling, Apply joints to an Assembly, Assembly Techniques, Drawing Views, Create Form, Symmetry, Bridge and Thicken Bodies, Insert Crease & Edge, Surfacing, Rendering, Creating and stl (3D print) file, Managing and Collaborating Fusion 360 Data

**CAE Part,**

Introduction to Finite Element Analysis, Steps in Finite Element Analysis, Meshing, Material Properties, Loading & Boundary Conditions, Static Structural Analysis, Frequency Analysis, Animation, Reports

**Live Project**

### Course 3: CATIA for Mechanical Engineers (55 Days)

**Content:** Introduction To CATIA v5, Profile Creation, Part Design 3D, Dress-up Features, Reusing Data, Finalizing Design Intent, Sharing Information, Assembly Design, Drafting, Wireframe & Surface Design, Introduction to Surface Design, Creating Surfaces, Performing Operations on the Geometry, Completing the Geometry in Part Design, Sheet metal Products, Kinematics' & Simulation on CATIA

**Live Project**

### Course 4: Any one course among Solidworks/ Creo/ NxCAD

#### Option 1: Solidworks for Mechanical Engineers (55 Days)

**Content:** Solidworks Fundamental, Profile Creation, Part Design 3D, Dress-up Features, Finalizing Design Intent, Assembly Design, Drafting, Introduction to Surface Design, Creating Surfaces, Performing Operations on the Geometry, Completing the Geometry in Part Design, Sheetmetal Products, Simulation

**Live Project**

## **Option 2: Creo for Mechanical Engineers (45 Days)**

**Content:** Introduction to Creo Parametric Concept, Solid Modeling in Creo, Advanced Selection, Creating Sweeps and Blends, Relations, Parameters & Family Tables, Measuring, Inspecting Models, Introduction to Assembly & Restructuring, Surfacing Modeling in Creo, Drafting in Creo, Sheetmetal Design in Creo

**Live Project**

## **Option 3: NX CAD (Unigraphics) for Mechanical Engineers (50 Days)**

**Content:** Introduction to NX Fundamental, Sketcher window, Manipulating Commands for Sketcher, Part Modeling, Examining the structure of a model, Introduction to Assembly, Introduction to Drafting, NX Synchronous Modeling Fundamentals, NX Sheet Metal

**Live Project**

## **Course 5: ANSYS Workbench & Mechanical APDL**

**Content: ANSYS Workbench**

Introduction to FEA and ANSYS Workbench, Design Modeler, Mechanical Basics, General Preprocessing, Meshing, Static Structural Analysis, Vibration Analysis, Thermal Analysis, Results and Post processing

### **ANSYS Mechanical APDL**

Selection Logic, Solid Modeling, Meshing, Material Properties, Boundary Conditions, Solvers, Post-processing, Static Structural Analysis, Modal Analysis, Thermal Analysis, Tips & Tricks

**Live Project**

- **Interview Preparation**
- **Live Project**
- **Basic of Engineering Design & Material**
- **GD&T**
- **Experience on Project Assistance**

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