



# IFS ACADEMY

Training For The Future!!

## Advanced Diploma in CAD/CAE

(Duration: 4 Months)

(With 100% Placement Assistance)

### Course Curriculum

➤ **Basics of Engineering Design & Materials**

Free body diagrams and equilibrium; trusses and frames; virtual work; Stress and strain, stress-strain relationship and elastic constants, plane stress and plane strain, shear force and bending moment diagrams; bending and shear stresses; deflection of beams; torsion; Free and forced vibrations; Design for static and dynamic loading; failure theories; fatigue strength and the S-N diagram; Properties of engineering materials, yield criteria.

➤ **Basics of Engineering Drawing**

Projections, Limits, Fits & Tolerances, Drawing Reading, Different Standards, Manufacturing Processes, Machining Operations, GD&T.

**Note:** Select any two courses between Sr. No. 1 to 4 as mentioned below.

1. PTC Authorised Training Center (In-Finite Solutions ATC) Program  
**Creo (Creo 2.0) for Design Engineers (80 Hrs.)**

2. Dassault Systemes Authorised Certified Education Program  
**CATIA V5 Mechanical Designer (80 Hrs.)**

3. SIEMENS PLM Software Authorised Training Program  
**NX CAD for Design Engineers (80 Hrs.)**

4. **Finite Element Modeling using Hypermesh (70 Hrs.)**

➤ **Finite Element Analysis using ANSYS Mechanical APDL (60 Hrs.)**

This course is compulsory for all the students.

➤ **Finite Element Analysis using ANSYS Workbench (40 Hrs.)**

This course is compulsory for all the students.



(In-Finite Solutions ATC) 1

➤ **Soft Skills Training**

Résumé writing, Aptitude Test, Technical Test, Group Discussion Techniques, Interview techniques, Communication & Presentation Skills, Personality Development.

**Note: For in depth contents of the above programs, please refer our individual Modular and Authorised course curriculums.**

**Deliverables:**

- Technical sessions from industrial and academic professionals on topics of basics of engineering design and materials; basics of engineering drawing.
- Seminars and guidance from industrial professionals on soft skills training.
- **Creo for Design Engineers:** Soft copy of study material, Creo Student License for 1 year, PTC Authorised Certificate of Completion, Online access to PTC University website.
- **CATIA V5 Mechanical Designer:** Soft copy of Training Manual, Dassault Systemes Certificate of Training, and Online access to Companion Learning Space for DS Study Material.
- **NX CAD for Design Engineers:** Soft copy of Training Manual, SIEMENS PLM Software Authorised Certificate of Completion.
- **Finite Element Modeling using Hypermesh:** Soft copy of study material, IFS Academy Certificate of Completion.
- **Finite Element Analysis using ANSYS Mechanical APDL:** Soft copy of study material, IFS Academy Certificate of Completion.
- **Finite Element Analysis using ANSYS Workbench:** Soft copy of study material, IFS Academy Certificate of Completion.
- **Exposure to live case studies and projects.**

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IFS Academy, Pune

T:+91-20-6400 7296, M: +91-98228 49628, +91-99224 40102, E: training@ifsacademy.org,

Visit Us At: [www.ifsacademy.org](http://www.ifsacademy.org)

