



NX CAD Foundation Training

5-Day User Training - Course Outline

All classes heavily emphasize “Activity Based Learning.” Students are introduced to new topics then participate in hands-on activities related to materials presented. Our instructors have many years of industry experience and can relate tips & tricks based on real world work flows & techniques. Part, component & feature reuse are stressed throughout the course with special emphasis on the Reuse Library.

Day 1

- Overview of Course & Introductions
- User Interface, Environment & Preferences
- Applications, Menus, Roles, Shortcut Keys
- Shortcuts, Radial Pop-ups, Customization
- Recommended First Launch Settings
- Navigating NX Graphic Environment
- Manipulating Parts, Open, Close, Save, Save-As
- Mouse Functions & Alternate Arrangement
- Getting Help: Command Finder, Online
- Expressions & Layers
- Model Interrogation: Measurements
- Data Import/Export
- Introduction to NX Sketcher: Where it all starts
- Activities

Day 2

- Sketcher: Constraining Geometric & Dimensional
- Evaluating an Over-Constrained Sketch
- Adding Curves & Alternate Solutions
- Repositioning or Reattaching Sketch
- Introduction to Feature Modeling
- Coordinate Systems: Absolute CSYS, WCS
- Datums: Planes, Axis, Points & Sets
- Design Features: Revolve, Extrude & Primitives
- Detail Features: Edge/Face Blend, Chamfer, Draft
- Sweeps: Sweep along Guide, Tube
- Associative Copy: Pattern Feature/Face & Control
- Boolean: Unite, & w/Regions, Subtract, Intersect
- Feature: Hole, Hole Forms, Threads & Standards
- Blending Strategy – When & How
- Trim: Trimming, Splitting, Dividing
- Offset: Shell, Thicken, Offset Face / Region
- Model Navigator / Layer Categories
- Working with Bodies: Sheets & Solids
- Introduction to the Reuse Library / Part Families
- Activities

Day 3

- Assembly Creation: Top Down vs. Bottom Up
- Large Assembly Best Practices
- Assembly Load Options

- Assembly Navigator (ANT) & Column Configuration
- Component Arrays & Limitations
- Modeling in Context, Show/Hide, Suppression
- WAVE Geometry Linker & Interpart Expressions
- Quick Pick, Hidden Wireframe Geometry
- Clearance Analysis: Simple & Assembly Clearance
- Repositioning Components / Assembly Constraints
- Reference Sets: Automatic & Manual
- Substitute Component
- Save-As & Make Unique
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- Sheet Metal 101 – Straight Brake Sheet Metal
- Free Form Modeling 101 – Surfacing & Meshing
- Routing 101 Mechanical/Electrical
- Product Interfaces – WAVE Control License
- Activities

Day 4

- Drafting Components
- Master Model vs. Embedded Drawing
- Templates & Site Standards
- Dimensions, Notes, Dimensioning Styles
- Ordinate Dimensions & Alignment
- Tolerances, Appended Text & Note Stacking
- Retained Dimensions / Re-Associating Dimensions
- View Creation: Base, Projected, Section, Detail
- Broken Views, View Alignment, Break-out Section
- Symbols: GD&T, Weld, Surface Finish, Custom
- Layer Control in Drafting & Sketching
- Add/Subtract Sheets / Auto or Smart Text
- Drafting Preferences, Styles & Control
- Activities

Day 5

- Assembly Drafting: Exploded Views & Tracelines
- Parts Lists (BOM) & Tabular Notes
- Show/Hide Components in View
- Plotting vs. Printing / Exporting PDF or CGM
- Reverse Engineering Techniques
- Synchronous Modeling
- Wrap-up Project
- General Q&A, Special Topics
- Activities

* Depending upon student need

**TO REGISTER: please email Training@appliedcax.com, ATTN: Instructor Matt Martin
or visit <http://appliedcax.com/nx-cad-foundation-training>**