NX8 CAD Trainer Test Syllabus

Required courses

- Essentials for NX Designer
- Intermediate NX Design and Assemblies
- Synchronous Modeling and Parametric Design
- Mechanical Free Form Modeling

Primary course topics

1. Essentials for NX Designer

- User Interface
- Holes
- Coordinate Systems
- Create Expressions
- Sketching
- Shell
- Datum
- Instance Arrays
- Modeling Theory Based on Extrude or Revolve
- Blending and Chamfers
- Part Structure and Edits
- Basic Assembly Modeling
- Intermediate Sketching Topics
- Assembly Constraints
- Trim Body
- Master Model Concept
- Extrude Options, including Draft and Limits
- Creating and Editing Drawings
- Creating and Editing Annotation

2. Intermediate NX Design and Assemblies

- Sketching
- Associative Offset Curves
- Expressions
- Duplicating Features
- Assembly Functions
- Part Families
- Top/down Assembly Modeling

- Assembly Arrangements
- Face Operations
- Extract and Delete Face
- Interpart Modeling
- Interpart Expressions
- Variable and Overflow Blends
- Component Arrays
- Revise & Replace Components

3. Synchronous Modeling and Parametric Design

- Documenting Design Intent
- Editing Parametric Models
- Associative Curve Operations
- Assembly Sequencing and Motion
- General Pockets and Pads and Emboss
- Blending Techniques
- Interpart References
- Design Optimization
- Synchronous Modeling

4. Mechanical Free Form Modeling

- Curves:
  - Spline Interfaces;
  - Degree, Segments and Continuity
  - Bridge Curves, Intersection Curves and Projected Curves
- Curve Analysis:
  - Poles, Combs and Deviation
- Free Form Surfaces:
  - Swept, Through Curves and Curve Mesh
  - Section Surfaces, Face and Soft Blends and N-sided
- Sheets to Solid Assistant
- Face Analysis:
  - Radius, Reflections, Deviation and Slope
- Trim:
  - Trim Body, Trim Sheet and Trim and Extend
  - Patch Body

Test paper:

English/Chinese

Test Mode:

1. Written Test (>=70%)
2. Hands-On Test (>=70%)
3. Lecture Interview (for new trainer) (Time: 30 minutes）