



## **Inventor 2012 Advanced Part Modeling Course Outline**

In this training class, we consider various approaches to part design and emphasize useful strategies. Specific advanced part modeling techniques covered include multi-body design, advanced lofts, advanced sweeps, coils, and surface modeling. Additional material aimed at increasing efficiency is also included: iFeatures for frequently needed design elements, iParts for similar designs, iLogic for automating designs, translation options for importing data, and the Engineer's Notebook for communication. The guide also covers some miscellaneous drawing tools such as custom sketches symbols, working with title blocks and borders, and documenting iParts. With an understanding of these tools, students can begin to streamline the design and documentation process.

This course is designed for an experienced Inventor user. It is recommended that you have working knowledge of Microsoft Windows 7. Drafting experience is a plus.

### **Topics:**

#### **1. Tips & Tools**

Design Philosophies  
Sketching Tips  
Modeling Tips  
Appearance Options  
Color Styles

#### **2. Multi-Body Part Modeling**

Multi-Body Part Modeling

#### **3. Sketching Tools**

Splines  
3D Sketches

#### **4. Advanced Work Features**

Grounded Work Points  
User Coordinate System

#### **5. Advanced Lofts, Sweeps, and Coils**

Area Lofts  
Advanced Loft Options  
Advanced Sweeps  
Coils

#### **6. Part Design using iLogic**

Introduction to iLogic  
iLogic Functions  
Creating Parts Using iLogic

#### **7. Analyzing a Model**

Analysis Types  
Analysis Procedures

#### **8. Introduction to Surfaces**

Introduction to Surfaces  
Basic Surfaces  
Patch Surfaces  
Stitch Surfaces  
Sculpting with Surfaces  
Thickening & Offsetting a Surface  
Surfaces in Drawing Views

#### **9. Additional Surfacing Options**

Extend and Trim Surfaces  
Replace Face with a Surface  
Delete Faces  
Copy Surface

#### **10. Importing Surfaces**

Importing Surfaces  
Repairing Imported Surfaces  
Construction Environment (Optional)

#### **11. Copying Between Parts (iFeatures)**

Creating iFeatures  
Inserting iFeatures  
iFeatures vs. Copy Feature  
Table-Driven iFeatures  
Editing Features

#### **12. iParts**

iPart Creation  
iPart Placement  
Editing an iPart Factory  
Creating iFeatures from a Table-Driven iPart  
Tables for Factory Members

#### **13. Translation**

Import and Export Data  
Importing Solids

**Duration:** 2 days

**Classroom Tuition:**  
\$550.00/student

*Group rates are available*

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