

DesignPoint's SolidWorks training program focuses on the unique training needs of each customer offering convenient locations, manageable courses and knowledgeable instructors.

DesignPoint is a SolidWorks authorized training, testing & support center. Whether it's our offices, a local facility or at your site, DesignPoint's training classes are complete turnkey solutions. We provide all computers and training materials allowing the student to focus on learning.

We offer our courses in small, digestible segments. Classes are never more than three consecutive days, maximizing productivity while minimizing time away from the office.

All of our trainers are certified by SolidWorks for instruction and technical support and all have passed the Certified SolidWorks Professional (CSWP) exam. In addition, they are all certified examiners for the CSWP program.

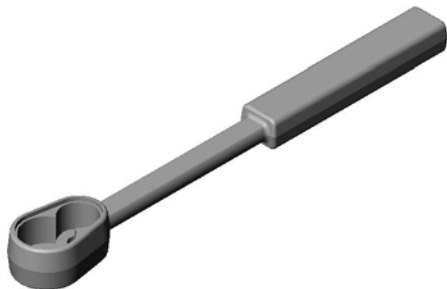
## SolidWorks Fundamentals Part 1

The DesignPoint SolidWorks Fundamentals course is a total of 5 days. It is offered in one 3-day segment and one 2-day segment for the scheduling convenience of our customers. Individual segments cannot be purchased separately.

The goal of this course is to teach you how to use the SolidWorks mechanical design automation software to build parametric models of parts and assemblies and how to make simple drawings of those parts and assemblies.

SolidWorks is such a robust and feature rich application that it is impractical to cover every minute detail and aspect of the software and still have the course be a reasonable length. Therefore, the focus of this course is on the fundamental skills and concepts central to the successful use of SolidWorks 2006. You should view the training course manual as a supplement to, not a replacement for, the system documentation and on-line help. Once you have developed a good foundation in basic skills, you can refer to the on-line help for information on less frequently used command options.

**Prerequisites:** Mechanical design experience and completion of the SolidWorks "Getting Started Tutorial" included with the software.



### Course Outline - 3 Days

#### Introduction

- Design Intent
- File References
- The SolidWorks User Interface

#### Introduction to Sketching

- 2D Sketching
- Sketch Entities
- Sketch Relations
- Dimensions
- Extrude Feature

#### Basic Part Modeling

- Choosing the Best Profile
- Choosing the Sketch Plane
- Using the Hole Wizard
- Cut Feature
- Filleting

#### Modeling a Casting or Forging

- Boss Feature with Draft
- Symmetry in the Sketch
- Using Model Edges in a Sketch
- Editing Features

#### Patterning

- Linear Pattern
- Circular Patterns
- Mirror Patterns
- Sketch Driven Patterns

#### Revolved Features

- Mass Properties
- COSMOSXpress

#### Shelling and Ribs

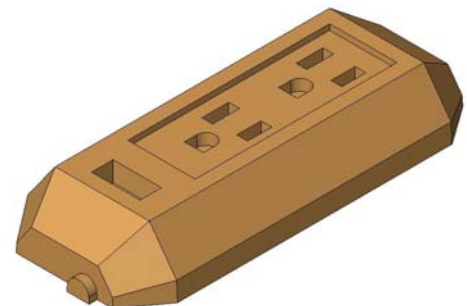
- Analyzing and Adding Draft
- Shelling & Ribs
- Thin Features

#### Editing: Repairs & Design Changes

- Part Editing
- FilletXpert
- DraftXpert

#### Bottom-Up Assembly Modeling

- Creating a New Assembly
- Adding Components
- Sub-assemblies
- Smart Mates



### TRAINING CENTERS:

DESIGNPOINT SOLUTIONS  
136 CENTRAL AVENUE  
CLARK, NJ 07066  
732.669.0055

DESIGNPOINT SOLUTIONS  
1851 CHARTER LANE  
LANCASTER, PA 17601  
717.397.9707

SOLIDWORKS REGIONAL OFFICE  
300 WEST STATE STREET  
3RD FLOOR  
MEDIA, PA 19063  
610.355.0551

### AVAILABLE COURSES:

#### SOLIDWORKS

- FUNDAMENTALS PART 1
- FUNDAMENTALS PART 2
- ADVANCED ASSEMBLY MODELING
- ADVANCED PART MODELING
- ADVANCED SURFACE MODELING
- MOLD DESIGN USING SOLIDWORKS
- SHEET METAL
- WELDMENTS
- FILE MANAGEMENT
- ROUTING
- API FUNDAMENTALS

PDMWORKS WORKGROUP  
PDMWORKS ENTERPRISE

COSMOSWORKS DESIGNER  
COSMOSWORKS PROFESSIONAL

DesignPoint's **SolidWorks training** program focuses on the unique training needs of each customer.  
We offer:

**Convenient locations** – DesignPoint is SolidWorks authorized training, testing & support center. Whether it's our offices, a local facility or at your site, DesignPoint's training classes are complete turnkey solutions. We provide all computers and training materials allowing the student to focus on learning.

**Manageable Courses** – We offer our courses in small, digestible segments. Classes are never more than four consecutive days, maximizing productivity while minimizing time away from the office.

**Knowledgeable Instructors** – All of our trainers are certified by SolidWorks for instruction and technical support and all have passed the Certified SolidWorks Professional (CSWP) exam. In addition, they are all certified examiners for the CSWP program.

# TRAINING

## AVAILABLE COURSES:

### SOLIDWORKS

- \* FUNDAMENTALS PART 1
- \* FUNDAMENTALS PART 2
- \* ADVANCED ASSEMBLY MODELING
- \* ADVANCED PART MODELING
- \* ADVANCED SURFACE MODELING
- \* MOLD DESIGN USING SOLIDWORKS
- \* SHEET METAL
- \* WELDMENTS
- \* FILE MANAGEMENT
- \* ROUTING
- \* API FUNDAMENTALS

### PDMWORKS WORKGROUP

### PDMWORKS ENTERPRISE

### COSMOSWORKS DESIGNER

### COSMOSWORKS PROFESSIONAL

## Lesson 1:

### Introduction to Surfacing

- What is solid?
  - Behind the Scenes
- Working with Surface Bodies
- Checking for a Closed Surface
- Parameterization
- Surface Types
- Feature History in an IGES File?
- Why use Surfaces?
  - When not to use Surfaces
  - Mixing Metaphors: Hybrid Modeling
- Workflow with Surfaces
- Working with Images
- Layout Sketch
- Identify Symmetry and Edges
- Identify Functional Faces
- Check your Models Frequently
- Folders in the FeatureManager
- Clean-up

## Lesson 2:

### Solid-Surface Hybrid Modeling

- Hybrid Modeling
- Using Surfaces to Modify Solids
- Interchanging between Solids and Surfaces
- Surfaces as Construction Geometry
  - Stages in the Process
- Repairing and Editing Imported Geometry
- Editing Imported Parts

## Lesson 3:

### Surface Modeling

- Stages in the Process
- Using Sketch Picture to Capture Design Intent

- Lofting Surfaces
- Modeling the Lower Half
- Filling in Gaps
  - Preparation for Using Filled Surface
  - Creating a Knit Surface
- Design Changes
  - Dynamic Feature Editing
  - Replacing a Face

## Lesson 4:

### Blends and Patches

- Complex Blends
  - Stages in the Process
  - Fill Surface Edge Selection
- Smoothing Patches
  - Three Alternative Approaches
  - Analysis Techniques
- Freeform Feature
  - Using the Triad
  - Undoing Changes
  - Boundary Conditions

## Lesson 5:

### Master Model Techniques

- Introduction to Master Models
  - Push and Pull type Operations
  - Workaround for Split Feature
  - Summary of Recommendations
- Surface Master Technique
- Working with a Solid Master Model
  - Splitting the Part
  - Modeling the Keypad
  - Reveal
  - Draft Analysis
  - Fastening Features

