

# Quality & Productivity Solutions, Inc.

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## **AutoCAD & SolidWorks: Basics & Intermediate**

**(QPS Course # 340 – DET Course ID: 1092044)**

This course is designed to provide a background on AutoCAD & SolidWorks, prepare students to create 2D Drawings in AutoCAD & SolidWorks, and provide knowledge on AutoCAD & SolidWorks fundamentals and architecture. This course provides the standard tools and features a host of tools to greatly increase speed and efficiency. It covers basic, intermediate, and advanced AutoCAD & SolidWorks. This is a hands-on course.

### **Course Benefits**

- Participants will learn various areas of AutoCAD & SolidWorks.
- Access to knowledgeable instructors and comprehensive materials
- Certificate of course completion
- Discussion, interaction and class exercises all help understand different aspects of AutoCAD & SolidWorks. Extra classes, coaching & mentoring when necessary at no additional charge.

**Duration:** 5 weeks (100 hours total)

**Cost:** \$5,000 includes books

### **AutoCAD Topics Covered:**

- AutoCAD Introduction & Materials Overview
- AutoCAD Fundamentals
- Basic Templates & Features
- Working with Simple & Composite Solids
- Working with a User Coordinate System
- Exploring the AutoCAD & AutoCAD LT Interface
- Creating Your First Drawing
- Setting Up & Using AutoCAD's Drafting Tools
- Organizing Objects with Blocks & Groups
- Keeping Track of Layers & Blocks
- Editing & Reusing Data to Work Efficiently
- Mastering Viewing Tools, Hatches, & External References
- Introducing Printing, Plotting & Layouts
- Understanding Plot Styles
- Adding Text to Drawings
- Using Fields, Tables, Dimensions & Attributes
- Copying Existing Drawings into AutoCAD
- Advanced Editing and Organizing
- Layering Out Your Printer Output
- Making "Smart" Drawings with Parametric Tools
- Using Dynamic Blocks & Drawing Curves
- Getting & Exchanging Data from Drawings
- 2D Drawings & creating them from 3D Models
- Hands-on Exercises

### **Solidworks Topics Covered:**

- SolidWorks Introduction
- AutoCAD to & SolidWorks Transition
- New Topics in Latest SolidWorks Release
- SolidWorks Interface & File Management
- Basic: Sketching, Features & Part Design
- Assembly & Drawing Creation
- Advanced: Sketching & Features
- Mold Creation Tools & Surfacing Tools
- Weldment Design & Sheet Metal Design
- Advanced Assembly Techniques
- Top Down Assembly Design
- File Management with WorkGroup PDM
- Photorealistic Rendering with PhotoWorks & PhotoView 360
- Advanced Surfacing Techniques
- Preparation for CSWA & CSWP Certification
- Introduction to Simulation & Meshing
- Applying Loads & Restraints
- Simulation of Parts, Assemblies, Beams, Weldments & Results
- Introduction to Routing
- Routing Design & Documentation
- Tol Analyst & DimXpert

**About the Instructor:** The Instructor is an AutoCAD expert.

**Who Should Attend?** AutoCAD is used in many industries, such as mechanical engineering, civil engineering, architecture, facilities planning and management. Mechanical engineers, mechanical drafters, electro-mechanical technicians, mechanical engineering technicians, and any other professionals who deal with AutoCAD and are seeking certification; mid-career professionals who seek AutoCAD knowledge to further develop their skills where training would enhance getting the jobs / promotions.

For More questions: **Contact the Training Administrator, [info@qpsinc.com](mailto:info@qpsinc.com), Telephone: (508) 987-3800 or Jay Patel at 508-579-1006**

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