# SolidWorks Essentials

SolidWorks Essentials is an easy-to-use CAD software for building parametric models of parts and assemblies. In this introductory course, WCOAP 6071, students will learn the basic concepts of SolidWorks and good solid modeling techniques. Instruction will focus on the commonly used commands for part modeling, assembly and detailing components, but also on the processes to complete the modeling of a part. Prerequisites: A working knowledge of PCs and Windows operating systems is necessary. An understanding of basic drafting and mechanical design is helpful.



For all IT Academy courses at Bucks go to bucks.edu/itacademy



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# Computer Aided Design (CAD)





**County Community College** 



# AutoCAD

# AutoCAD<sub>®</sub> Essentials

This course, WCOAP 6064, incorporates the features, commands, and techniques for creating, editing, and printing 2D drawings with AutoCAD. You will learn skills that can be used in all disciplines of AutoCAD, and specifically engineering. Hands-on exercises throughout the course explore how to create 2D production drawings. Prerequisite: A working knowledge of PC's and Microsoft Windows is necessary. An understanding of basic drafting skills and blueprint reading is helpful.

# AutoCAD<sub>®</sub> 3D Modeling 2nd Level

This course, WCOAP 6065, incorporates the features, commands, and techniques used to create, edit, and print 3D drawings with AutoCAD. Its hands-on exercises throughout the course explore creating 3D wire frame models, 3D surface models, 3D solid models and making multi-view drawings. Prerequisites: A working knowledge of AutoCAD, Microsoft Windows OS, basic drafting skills and blueprint reading.





### AutoCAD® for the Interior Design

This course, WCOAP 6073, provides the Interior Design student with a non-intimidating, tutorial-based approach to learning the AutoCAD program. It accomplishes this by taking students that have no computer design experience from simple commands to complete projects.

#### Course Learning Outcomes

- Going from drafting to CAD
- Getting familiar with the AutoCAD workspace
- Understanding the AutoCAD toolbar
- Using AutoCAD help
- Customizing the screen appearance and using the right click
- Using a flash drive
- Opening and saving drawings

#### **Course Topical Outline**

- Getting comfortable with AutoCAD
- Setting-up and intro to AutoCAD
- Drawing construction
- Hotel Suite Project
- Working with your drawing
- Laying-out your drawing for printing
- Reusing objects and getting organized
- Annotating your drawing
- Creating and editing schedules
- Creating curves and rendering
- Techniques, Commands, and Options

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# **Revit® Architecture**

The course, WCOAP 6068, covers the concepts and introduces Revit tools to create a schematic design from construction documentation to design visualization. Prerequisite: A working knowledge of computers, MS Windows, and previous experience in architectural design, drafting, or engineering is necessary. No previous CAD experience is necessary.

# Revit<sub>®</sub> Structure

Entry level instructional course, WCOAP 6062, consisting of how to use the Autodesk drafting software Revit 2016 with a specific focus on Structural drafting. To take full advantage of Building Information Modeling, the Autodesk Revit 2016 Structure Fundamentals has been designed to teach you the concepts and principles from building design through construction documentation using the Autodesk Revit 2016 Structure software. This course is intended to introduce you to the user interface and the basic building components of the software that makes it a powerful and flexible structural modeling tool. The goal is to familiarize you with the tools necessary to create, modify, and document the parametric model.

