Career Technical Education Computer-Aided Design Programs

In the innovative, cutting-edge, 21st century design world, everything from toys and gaming consoles, tablets and smart phones, dwellings and skyscrapers to satellites and wind turbines must first be visualized and designed using Computer-Aided Design (CAD) software. By using CAD, architects, engineers, manufacturers and drafters can imagine, invent, and revise the 3D designs and detailed drawings that they use to give physical form to their ideas. This field often appeals to individuals with previous construction or manufacturing experience who prefer designing projects over physically building them.

The class is structured around hands-on exercises and projects with step by-step tutorials, with the instructors providing individual assistance. Along with the ability to collaborate and swap ideas with fellow students in an interactive work-like team atmosphere, students benefit from faster, more comprehensive learning. The class also provides a platform for experienced students to prepare for internationally recognized certification exams with practice questions and exams based on the software manufacturer's testing objectives.

CBEDS Code 5705 Computer-Aided Drafting Design

3D Modeling and Design Drafter   36 weeks (1260 hours)

Financial Aid Available
to those who qualify

ELEMENTS:

- Manual Drafting Fundamentals
- Manual Drafting Projections and Views
- Manual Drafting Applications
- Computer and Internet Fundamentals
- Word Processing Fundamentals
- Computer Spreadsheets/Graphics Fundamentals
- CAD 2D Fundamentals 1 and 2
- CAD 2D Applications 1 and 2
- CAD 2D Industrial Applications 1 and 2
- CAD 3D Fundamentals
- CAD 3D Industrial Applications
- CAD 3D Solids Modeling
- AutoCAD Certified User (ACU) Exam
- SolidWorks Fundamentals
- SolidWorks 3D Solids Modeling
- SolidWorks Assemblies
- SolidWorks Production Drawings
- SolidWorks Sheet Metal Design
- SolidWorks Industrial Applications
- Rapid Prototyping
- Portfolio Development
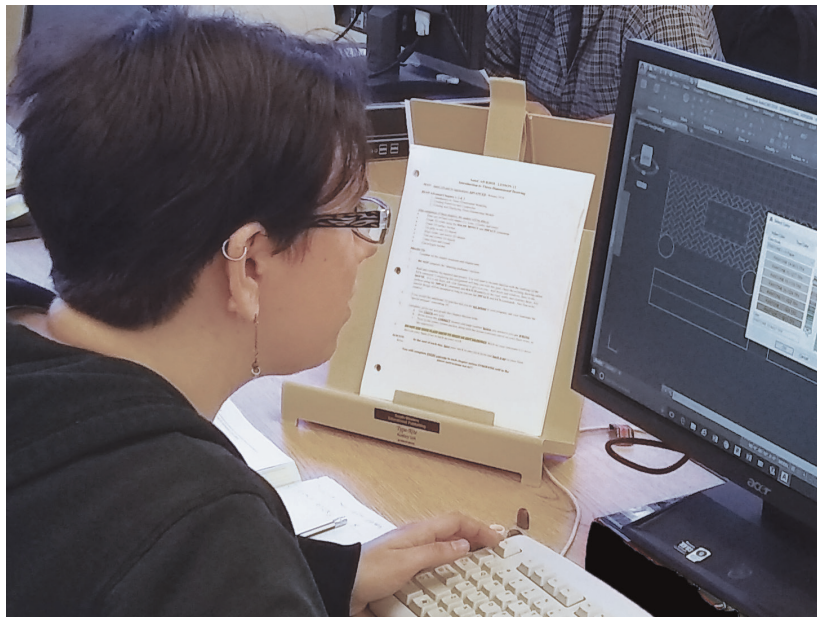- Certified SolidWorks Associates (CSWA) Exam

COURSE INFORMATION:

This comprehensive course builds on the Computer-Aided Design Drafter program and adds 3D solid-modeling using the industry-leading parametric CAD software program, SolidWorks. Students with little or no previous CAD or computer experience can gain the tools and training they need to stand out from the crowd and enter today's competitive job market.

This course prepares students to take both the AutoCAD Certified User Exam (ACU) exam and the Certified SolidWorks Associate (CSWA) exam. These international industry certifications are benchmarks that students use to demonstrate their expertise in 3D solid modeling and design concepts and their mastery of the latest cutting-edge design software.

Employment Opportunities:
    CAD Drafter
    3D Designer
    3D Design Drafter/Technician
    3D Machine Designer
    3D Product / Modeling Designer
    Mechanical Designer/Drafter
    Sr. CAD Designer
    Technical Designer
    CAD Modeler

CBEDS Code 5705 Computer-Aided Drafting Design

Computer-Aided Design Drafter

30 weeks (1050 hours)

Financial Aid Available
to those who qualify

ELEMENTS:

- Manual Drafting Fundamentals
- Manual Drafting Projections and Views
- Manual Drafting Applications
- Computer and Internet Fundamentals
- Word Processing Fundamentals
- Computer Spreadsheet/Graphic Fundamentals
- CAD 2D Fundamentals 1 and 2
- CAD 2D Applications 1 and 2
- CAD 2D Industrial Applications 1 and 2
- CAD 3D Fundamentals
- CAD 3D Industrial Applications
- CAD 3D Solids Modeling
- AutoCAD Certified User (ACU) Exam
- Rapid Prototyping
- Portfolio Development

OPTIONAL COURSE ENHANCEMENTS

- SolidWorks®, Revit®, Inventor® and AutoCAD Civil 3D®

COURSE INFORMATION:

Designed for students with little or no previous CAD or computer experience, the Computer-Aided Design Drafter course prepares students for entry-level employment as CAD Drafters and Technicians. The course covers 2D geometric construction and advanced 3D solid modeling using AutoCAD. AutoCAD is used across a wide range of industries and is the gateway software that other specialized CAD programs use for advanced manufacturing, architectural design, animation and game design.

The course also includes manual drafting, a critical part of the design process needed to clearly understand and communicate design ideas.

Graduating students may study for the AutoCAD Certified User Exam (ACU) for AutoCAD.

EMPLOYMENT OPPORTUNITIES:

CAD Drafter
CAD Operator
CAD Designer
CAD Technician