

# COMPUTER-AIDED DESIGN (CAD)

**2018 MEDIAN PAY: \$55,000 PER YEAR**

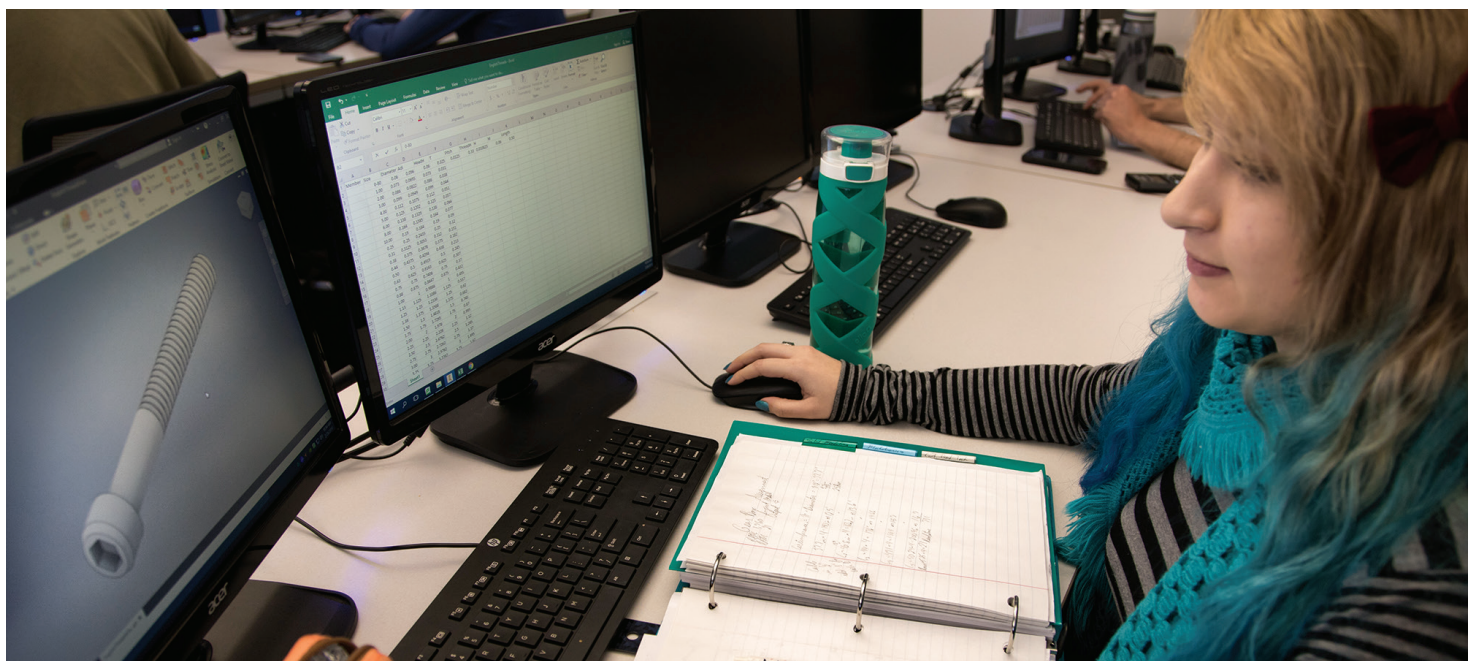
**TYPICAL ENTRY-LEVEL EDUCATION: ASSOCIATE'S DEGREE**

**JOB OUTLOOK AS REPORTED BY OCCUPATIONAL OUTLOOK HANDBOOK: 7%**

CAD Assistants or CAD Drafters use computer-aided design software and work with Lead Drafters to create designs and schematics used to manufacture products or construct buildings. CAD Assistants may specialize in many areas including mechanical, electrical, and civil drafting.

The primary role of CAD Assistants is to support Lead Drafters and/or Project Managers in designing and preparing complete and accurate technical drawings for building construction and product manufacturing utilizing computer-aided design systems. CAD Assistants fill out these drawings with specifications, methods, and codes. These detailed technical drawings incorporate the input of engineers, architects, and surveyors and can specify dimensions, codes, materials, and production methods. Mechanical drafters create designs for machinery and mechanical devices including HVAC/R equipment and systems. Other common specialties include aeronautical, pipeline, electrical, and electronics drafting. Many employers require CAD Assistants to have completed at least an associate's degree program.

CAD Assistants was listed as one of the 40 careers needed to help advance those in the climate control technology industry as recently published by Interstate Renewable Energy Council (IREC).



## AUTOCAD

Students are introduced to the AutoCAD drawing platform. AutoCAD commands are taught using the following drafting methods: Geometric Construction, Orthographic Projection, Sectioning and Isometric Views. Special emphasis is placed on dimensioning, white space layout, GUI customization, scaling, and line weight. After successful completion of this course, students will be proficient with the AutoCAD software and have an understanding of the fundamentals of drafting.

CAD 101-51 T 8/27-12/17 5-9:30pm SRC \$626

No class 10/15 • (credit-bearing course)

DCB 1600 T 8/27-12/17 5-9:30pm SRC \$626

No class 10/15 • (non-credit bearing course)

## SOLID MODELING I

This class is an introduction to Solid Modeling using the Autodesk Inventor Professional software. Topics emphasized include: design intent solid modeling, white space layout design, dimensioning, GD&T, GUI customization, sheetmetal design and welding assembly. Students will create parts, assemblies, presentations and drawings throughout the term.

CAD 102-51 R 8/29-12/17 5-9:30pm SRC \$626

No class 11/18

DCB 2224 R 8/30-12/17 5-9:30pm SRC \$626

No class 11/18

## INTRODUCTION TO SOLIDWORKS

This course requires an understanding of solid modeling for successful completion of the course. This course is an introduction to the solid modeling software SolidWorks. Topics covered are: GUI Customization, Part Families, Inventor to SolidWorks Commands, Motion studies and FEA analysis software. Prerequisite: CAD 102 or permission of instructor.

CAD 204-51 M 8/26-12/17 5-9:30pm SRC \$626

No class 9/2 & 10/14

M - MONDAY • T - TUESDAY • W - WEDNESDAY • R - THURSDAY • F - FRIDAY • S - SATURDAY • U - SUNDAY