

# Computer Aided Design Certificate

## Engineering Technologies Division

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## Computer Aided Design Certificate

A Computer Aided Design Certificate prepares the individual to create engineering drawings using CAD software. Typically these individuals will work closely with mechanical engineers, sometimes receiving objectives and technical advice from supervisors and/or engineers (both Electrical and Mechanical), displaying both their knowledge of the software and current knowledge of drafting and design standards. It is expected by employers that individuals demonstrate excellent verbal, written and interpersonal communication skills.

Coursework (100 level or higher) completed in this certificate directly applies toward the associate degree in mechanical engineering technology with a CAD/CAM major.

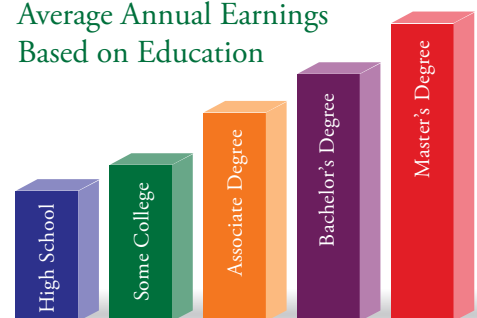
### Career Outlook

Graduates of this program may find employment as an entry-level CAD operator/technician or as a detailer working under the direction of a design engineer. Some of the typical duties of a CAD operator/technician will include: compiling and computing a variety of engineering data; developing and preparing schematics from designs made by you and/or others; making preliminary designs from rough specifications and/or verbal directions; generating and revising current engineering prints and three-dimensional patterns for parts and products; designing and modifying equipment used for manufacturing; building a bill of material for new or revised designs, revising drawings and checking prints for accuracy.

Job opportunities for CAD technicians will remain stable through the next several years, with most of the positions occurring from replacing workers who leave the profession or retire.

### Education Pays

Average Annual Earnings  
Based on Education



2011-2012

Based on data from the Bureau of Labor Statistics

# Program Sequence

<i>First Semester</i>		<i>Credits</i>
+ CAD111	CAD I	4
+ MET110	Print Reading & Sketching	3
<hr/>		7

<i>Second Semester</i>		<i>Credits</i>
+ CAD112	CAD II	4
+ IND110*	Industrial Computing I	3
IND103	Applied Geometry & Trigonometry	3
+ IND241	Tooling & Fixtures	3
<hr/>		13

<i>Third Semester</i>		<i>Credits</i>
+ CAD213	CAD III	4
+ IND140	Principles of Machining	3
+ QCT141	Precision Measurement	3
<hr/>		10

*Total Program Credit Hours* **30**



\* Prior to taking IND110, students should have basic computer literacy in Windows and at least one Windows application.

+ Students must attain a minimum grade of “C” in all courses with a ‘+’ to progress in the program and to graduate.

*Course curriculum is subject to change. Please consult with an Academic Advisor for up-to-date information.*

# Computer Aided Design Certificate

## Department of Engineering Technology

### **PROGRAM NAME & LENGTH**

**Name of Program:** Computer Aided Design

**Level of Program:** Certificate

**Program Length:** 3 Semesters

### **RELATED OCCUPATIONS**

**U.S. Department of Labor's Standard Occupational Classification (SOC) code:**

17-3013 Mechanical Drafters

**Link(s) to the U.S. Department of Labor's O\*Net Occupational Profiles:**

<http://www.onetonline.org/link/summary/17-3013.00>

### **COST:**

**Total Tuition:** \$4,080

**Fees:** \$270

**Total Est. Costs for Books and Supplies:** \$639

### **DEBT AT PROGRAM COMPLETION**

Number of students completing the program between July 1, 2010 and June 30, 2011

**Number of 2010-2011 Graduates:** 3 Students

For all Students completing program, the median cumulative debt for:

**Federal Student Debt:** Not Disclosed

### **PROGRAM COMPLETION IN NORMAL TIME**

**Normal Time in Months to Complete Program:** 12 Months