

CERTIFICATE REQUIREMENTS

www.cvtc.edu – 1-800-547-2882

CAD Operator Technical Certificate

Provides instruction for the entry level mechanical CAD (Computer Aided Design) operator. Software operation using industry standard AutoCad and SolidWorks software are used during instruction to develop detailed design drawings and specifications for mechanical equipment, dies, and tools using computer-assisted drafting (CAD) equipment. Two dimensional drawings, isometric drawings, three dimensional drawings and assemblies will be created. Print reading, visualization, sketching, and design document structuring are addressed. The student will have the opportunity to develop a portfolio of multiple CAD applications. Fundamental Geometric Dimensioning and Tolerancing principles are applied to mechanical part designs based on the current ASME Y14.5 standard. Courses in the certificate introduce the student to a broader range of manufacturing process, related part feature creation, material properties and the effects of production variation on design and part productivity.

Course Number	Course Title	Hrs./Week	Credits	Prerequisite(s)/Comments
606-161	CAD, Basic	5	3	
606-102	Technical Drafting-CAD	4	3	
606-104	Geometric Dimensioning & Tolerancing	4	3	
606-130	Solid Modeling I	5	3	
606-131	Solid Modeling II	5	3	606-130
606-160	Manufacturing Materials Processes	3	3	
	Total Credits		18 cr.	

TOTAL CREDITS REQUIRED = 18

2.0 MINIMUM PROGRAM CUMULATIVE GPA REQUIRED FOR GRADUATION