



Computer Aided Drafting Technician Certificate: 2018–2019

DESCRIPTION:

Drafters prepare technical drawings and plans used by production to build manufactured products. Drafters' drawings provide visual guidelines, show the technical details of the products, and specify dimensions, materials, and procedures. Drafters fill in technical details using drawings, rough sketches, specifications, codes, and calculations previously made by engineers or scientists. Some use their knowledge of engineering, manufacturing theory, and standards to design the parts of a machine. Drafters use technical handbooks, tables, calculators, and computers to complete their work.

Traditionally, drafters used drawing boards, pencils, pens, compasses, protractors, triangles, and other drafting devices to prepare a drawing manually. Most drafters now use Computer Aided Drafting and Design (CADD) systems to prepare drawings. Consequently, some drafters may be referred to as CADD operators. CADD systems employ computers to create and store drawings electronically that can then be viewed, printed, or programmed directly into automated manufacturing systems. These systems also permit drafters to prepare variations of a design quickly. Although drafters use CADD extensively, it is only a tool. Persons who produce technical drawings with CADD still function as drafters and need the knowledge of traditional drafters in addition to CADD skills. For more information, see cscs.edu/academics/gainful-employment.

ADMISSION REQUIREMENTS:

This is a non-selective, open-admission program. Students may enroll in any semester. Students must have a high school diploma or G.E.D. equivalency.

ONGOING REQUIREMENTS:

Students must maintain the minimum overall GPA required by the College.

OPPORTUNITIES FOR GRADUATES:

Career:

Changes in technology have transformed even the most basic functions in engineering and manufacturing. Computer Aided design software is necessary in many processes. Automated manufacturing systems now use robots, computers, programmable motion control devices, and various sensing technologies. These systems change the way in which goods are made and affect the jobs of those who make them. Manufacturing Engineering Technicians must be able to work with these new technologies and be comfortable using them to produce goods.

Computer Aided design software is used to design the solutions to many of the problems that must be overcome in an automated manufacturing environment.

Transfer:

Students who complete the Manufacturing Equipment Technician Certificate will have the courses apply to the A.A.S. degrees in Engineering Technology programs.

CERTIFICATE REQUIREMENTS (COMPUTER AIDED DRAFTING TECHNICIAN CERTIFICATE):**FIRST SEMESTER**

Course	Term	Credits	Milestones/Progress Check
ENGT 1115 Engineering Graphics	AU/SP/SU	3	• ENGT 1115 is a prerequisite for all CAD classes in the Mechanical Engineering Technology major.
ITST 1101 Industrial Applications and Software	AU/SP	2	
Semester Credits		5	

SECOND SEMESTER

Course	Term	Credits	Milestones/Progress Check
MECH 1145 CAD I	AU/SP/SU	3	
Semester Credits		3	

THIRD SEMESTER

Course	Term	Credits	Milestones/Progress Check
MECH 2215 Parametric CAD	AU/SP/SU	3	• Certificate is achieved
Semester Credits		3	
Total		11	

AU: Autumn Semester/SP: Spring Semester/SU: Summer Semester
 Requirements subject to change.