

Drafting & Computer Aided Design

The Department of Drafting and Computer Aided Design presents a series of courses designed to familiarize students with the concepts of Drafting and Design. Using the latest in Computer Assisted Design (CAD) capabilities, these courses will prepare the student for the job market.

Associate of Applied Science In Drafting (65-67 Credit Hours)

First Semester	Second Semester
DFTG 1405*** DFTG 1409*** DFTG 2421 DFTG 1458	DFTG 2417 DFTG 2419 DFTG 1417 DFTG 1491 Special Topics* or DFTG 1381 **
Third Semester	Fourth Semester
DFTG 2402 DFTG 2412 DFTG 2423 DFTG 1491 Special Topics* or DFTG 1381***	MATH 1314 GOVT 2306 Visual/Fine Arts (3 credit hours)
Fifth Semester	
SPCH 1321 ENGL 1301 COSC 1401	

* DFTG 1491 May be repeated for credit as the topics change. Topics include: Technical Drafting, Topographical Drafting, Machine Drafting, Computer Graphics, Electronic Drafting, and Pipe Drafting.

** DFTG 1381 is a Cooperative Education Course which may be taken as appropriate.

*** Tech Prep courses, which may have been completed in high school.

CERTIFICATE IN DRAFTING (40 Credit Hours)

First Semester

DFTG 1405 Technical Drafting*
DFTG 1409 Computer Assisted Design I*
DFTG 2421 Topographic Drawing
DFTG 1458 Electronic Drawing
DFTG 2412 Technical Illustrations

Second Semester

DFTG 2417 Descriptive Geometry
DFTG 2419 Computer Assisted Design II

DFTG 1417	Architectural Drawing
DFTG 2402	Machine Drawing
DFTG 2423	Pipe Drafting

* Tech Prep courses, which may have been completed in high school.

DFTG 1381	Cooperative Education Drafting & Design	3.1.20
	Career-related activities encountered in the student's area of specialization offered through an individual agreement among the college, employer, and student. Under the supervision of the college and the employer, students combine classroom learning with career related experience. Includes a lecture component. Prerequisite: consent of instructor. Fee Charged.	
DFTG 1405	Technical Drafting	4.2.4
	Introduction to the principles of drafting to include terminology and fundamentals, including size and shape descriptions, projection methods, geometric construction, sections, auxiliary views, and reproduction processes. Fee Charged.	
DFTG 1409	Basic Computer-Aided Drafting	4.2.4
	An introduction to computer-aided drafting. Emphasis is placed on setup; creating and modifying geometry; storing and retrieving predefined shapes; placing, rotating, and scaling objects, adding text and dimensions, using layers, coordinate systems, and plot/print to scale. Fee Charged.	
DFTG 1417	Architectural Drafting	4.2.4
	Architectural drafting procedures, practices, and symbols, including preparation of detailed working drawings for residential structure with emphasis on light frame construction methods. Fee Charged. Prerequisite: DFTG 1405	
DFTG 1458	Electrical/Electronics/Drawing	4.2.4
	Layout principles of electrical and electronics drawing, stressing modern representation used for block diagrams, schematic diagrams, logic diagrams, wiring/assembly drawings, printed circuits boards layouts, motor control diagrams, power distribution diagrams, and electrical one-line diagrams. Fee charged. Prerequisite: DFTG 1405.	
DFTG 1491	Special Topics In Drafting and Design	4.2.4
	Topics address recently identified current events, skills, knowledge, and/or attitudes and behaviors pertinent to the technology or occupation and relevant to the professional development of the student. Fee Charged. Prerequisite: DFTG 2419.	
DFTG 2402	Machine Drafting	4.2.4
	Production of detail and assembly drawings of machines, threads, gears, cams, tolerances and limit dimensioning, surface finishes, and precision drawings.	

Fee Charged. Prerequisite: DFTG 1405

- DFTG 2412 Technical Illustration** 4.2.4
Topics include pictorial drawing including isometrics, obliques, perspectives, charts, and graphs; shading and transfer lettering; and use of different media. Fee Charged. Prerequisite: DFTG 1405
- DFTG 2417 Descriptive Geometry** 4.2.4
Graphical solutions to problems involving points, lines, and planes in space. Fee Charged. Prerequisite: DFTG 1405
- DFTG 2419 Computer-Aided Drafting II** 4.2.4
A continuation of practices and techniques used in basic computer-aided drafting emphasizing advanced dimensioning techniques, the development and use of prototype drawings, construction of pictorial drawings, construction of 3 dimensional drawings, interfacing 2d and 3d environments and extracting data. Fee Charged. Prerequisite: DFTG 1409 or consent of instructor.
- DFTG 2421 Topographical Drafting** 4.2.4
Plotting of surveyors field notes, plotting elevations, contour drawings, plan and profiles, and laying out traverses. Fee Charged.
- DFTG 2423 Pipe Drafting** 4.2.4
A study of pipe fittings, symbols, specifications and their applications to a piping process system. Creation of symbols and their usage in flow diagrams, plans, elevations, and isometrics. Fee Charged. Prerequisite: DFTG 1405.