Computer-Aided Drafting and Design Technology, AAS

Drafting technicians are engineering communication specialists who apply mathematics, computer applications, and manual skills to develop specifications and drawings for the manufacturing and construction of virtually everything made in the world. JCCC's drafting technology program offers students up-to-date equipment in facilities located in the Industrial Training Center on the JCCC campus. In addition, the program offers departmental specialty courses. The program provides students with the skills necessary to produce detailed shop drawings, land plats, erection drawings, and designs for manufacturing, building, production, commercial building, and site construction as well as detailed drawings and designs of components, assemblies, and systems used in manufactured products.

Industrial growth and increasingly complex design problems will greatly increase the demand for design and drafting services, particularly using CAD equipment. Employers are most interested in applicants with drafting and mechanical skills, a background in CAD techniques, and courses in math, science, and engineering technology.

The two-year curriculum enables students to use the latest computer-aided design equipment. Course projects and laboratory procedures are similar to those used in industry.

(Major Code 2220; CIP Code 15.1302)

Drafting Technology Program web page (http://www.jccc.edu/academics/credit/drafting-technology/)

Associate of Applied Science Degree

Prerequisite for Required Courses

Prior to enrolling in CSS 110 and CSS 111 students must take the following prerequisite, or take an equivalent transfer course, or have passed the waiver test, or have obtained a waiver from the program administrator.

Code	Title	Hours
CSS 105	Introduction to Personal Computers: Windows	0-1
or CSS 106	Introduction to Personal Computers: Macintosh	
Note: Students completing CSS 105 or CSS 106 need 4 hours of Technical Electives. Students completing the waiver test need 5 credit hours of Technical Electives.		
Total Hours		**0-1**

First Semester

Code	Title	Hours
CSS 110	Spreadsheets I: MS Excel*	1
CSS 111	Spreadsheets II: MS Excel*	1
DRAF 120	Introduction to Drafting	2
DRAF 123	Interpreting Machine Drawings*	2
DRAF 129	Interpreting Architectural Drawings	2
DRAF 130	Introduction to CAD Concepts - AutoCAD*	3
DRAF 230	Intermediate CAD: AutoCAD*	3
MATH 130	Technical Mathematics I*	3
or MATH 171	College Algebra*	
Total Hours		**17**

Second Semester

Code	Title	Hours
DRAF 135	Graphic Analysis*	3
DRAF 143	Introduction to BIM Building Information Modeling*	2
DRAF 211	Engineering Design Problems*	3
DRAF 243	Advanced BIM: Revit*	2
ENGL 121	Composition I*	3

Humanities Elective ^		3
Total Hours		**16**

Third Semester

Code	Title	Hours
DRAF 145	Introduction to Parametric Design: Inventor*	2
DRAF 225	Civil Drafting*	3
DRAF 245	Advanced Parametric Design: Inventor*	2
DRAF 238	Architectural Design and Drafting*	3
DRAF 244	Civil 3D*	2
ENGL 122	Composition II*	3
or ENGL 123	Technical Writing I*	
Total Hours		**15**

Fourth Semester

Code	Title	Hours
Program Elective (see below)		4-5
Note: Students completing CSS 105 or CSS 106 need 4 hours of Technical Electives. Students completing the waiver test need 5 credit hours of Technical Electives.		
DRAF 222	Mechanical Design and Drafting*	3
DRAF 246	MicroStation for AutoCAD users*	2
DRAF 252	Structural Design and Drafting*	3
Social and Behavioral and Sciences Elective ^		3
Total Hours		**15**

Total Program Hours: 64

Program Electives

Code	Title	Hours
CMGT 105	Construction Methods	3
DRAF 142	Exploring Autodesk Fusion 360	2
DRAF 152	3D Modeling with SketchUp	2
DRAF 162	3D Printing	2
DRAF 247	Revit Systems MEP (Mechanical, Electrical, Plumbing)*	2
DRAF 271	Drafting Internship I*	3
DRAF 272	Drafting Internship II*	3

*   This course has registration requirements.

^   See all AAS general education electives (https://catalog.jccc.edu/archives/2024-25/degreerequirements/associate-applied-science/).