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.

An associate of applied science degree is awarded upon the successful completion of 64 credit hours.

(Major Code 2220; State CIP Code 15.1302)

- Computer-Aided Drafting and Design (http://www.jccc.edu/academics/arts-design/computer-aided-drafting)

Associate of Applied Science Degree

First Semester

Full Semester Course		
MATH 130	Technical Mathematics I*	3
or MATH 171	College Algebra*	
First Eight Week Session		
DRAF 120	Introduction to Drafting	2
DRAF 130	Introduction to CAD Concepts - AutoCAD*	3
Second Eight Week Session		
DRAF 123	Interpreting Machine Drawings*	2
DRAF 129	Interpreting Architectural Drawings	2
DRAF 230	Intermediate CAD: AutoCAD*	3
Total Hours		15

Second Semester

Full Semester Courses		
DRAF 135	Graphic Analysis*	3
DRAF 211	Engineering Design Problems*	3
ENGL 121	Composition I*	3
MATH 131	Technical Mathematics II*	3
or MATH 172	Trigonometry*	
First Eight Week Session		
DRAF 145	Introduction to Parametric Design: Inventor*	2
Second Eight Week Session		
DRAF 245	Advanced Parametric Design: Inventor*	2
Total Hours		16

Third Semester

Full Semester Courses		
DRAF 222	Mechanical Design and Drafting*	3
DRAF 225	Civil Drafting*	3

ENGL 123	Technical Writing I*	3
or ENGL 122	Composition II*	
First Eight Week Session		
DRAF 143	Introduction to BIM Building Information Modeling*	2
Second Eight Week Session		
DRAF 243	Advanced BIM: Revit*	2
DRAF 244	Civil 3D*	2
Total Hours		15

Fourth Semester

Technical Electives (see below)		4
DRAF 246	MicroStation for AutoCAD users*	2
DRAF 238	Architectural Design and Drafting*	3
DRAF 252	Structural Design and Drafting*	3
Humanities Elective ^		3
Social Science and/or Economics Elective ^		3
Total Hours		18

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

Technical Electives

CET 105	Construction Methods	3
CET 160	Green Building Fundamentals	3
DRAF 140	Topics in CAD I:	2
DRAF 152	3D Modeling with SketchUp	2
DRAF 162	3D Printing and CNC Fabrication	2
DRAF 242	Topics in CAD II*	2
DRAF 271	Drafting Internship I*	3
DRAF 272	Drafting Internship II*	3
INDT 155	Workplace Skills	1

Total Program Hours: 64