

Computer-Aided Drafting and Design Technology, A.A.S.

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/cad>)

Associate of Applied Science Degree

Prerequisites for Required Courses

Note: Prior to beginning the program, the student must take the following prerequisite courses, or have taken an equivalent transfer course, or have passed the waiver test (if applicable), or have obtained a waiver from the program administrator.

DRAF 120	Introduction to Drafting	2
BOT 101	Computerized Keyboarding	1
DRAF 130	Introduction to CAD Concepts - AutoCAD*	3

First Semester

DRAF 129	Interpreting Architectural Drawings	2
DRAF 123	Interpreting Machine Drawings*	2
DRAF 135	Graphic Analysis*	3
DRAF 230	Intermediate CAD: AutoCAD*	3
DRAF 143	Introduction to BIM Building Information Modeling*	2
MATH 130	Technical Mathematics I*	3
Health and/or Physical Education Elective ^		1

Total Hours		16
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^ Health and/or Physical Education Elective (<http://catalog.jccc.edu/fall/degrecertificates/electives/health-and-or-physical-ed-aas>)

Second Semester

DRAF 145	Introduction to Parametric Design: Inventor*	2
DRAF 238	Architectural Design and Drafting*	3
DRAF 225	Civil Drafting*	3
DRAF 244	Civil 3D*	2
MATH 131	Technical Mathematics II*	3
ENGL 121	Composition I*	3

Total Hours		16
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Third Semester

Technical Electives (see below)		2
DRAF 243	Advanced BIM: Revit*	2
CET 211	Technical Statics and Design*	3
DRAF 222	Mechanical Design and Drafting*	3
DRAF 250	Electrical Drafting*	3
ENGL 123	Technical Writing I*	3
Total Hours		16

Fourth Semester

Technical Electives (see below)		2
DRAF 252	Structural Design and Drafting*	3
DRAF 245	Advanced Parametric Design: Inventor*	2
CET 270	Fluid Mechanics*	3
Humanities Elective ^		3
Social Science and/or Economics Elective ^^		3
Total Hours		16

^ Humanities Elective (<http://catalog.jccc.edu/fall/degreecertificates/electives/humanities-aas>)

^^ Social Science and/or Economics Elective (<http://catalog.jccc.edu/fall/degreecertificates/electives/social-sci-econ-aas>)

Technical Electives

CPCA 108	Word Processing I: MS Word*	1
CPCA 110	Spreadsheets I: MS Excel*	1
CPCA 111	Spreadsheets II: MS Excel*	1
CPCA 114	Databases I: MS Access*	1
CPCA 115	Databases II: MS Access*	2
CPCA 117	Databases III: MS Access*	1
CPCA 121	Introduction to Project Management*	1
CPCA 123	E-Presentation: MS PowerPoint*	1
CPCA 125	Word Processing II: MS Word*	1
CPCA 151	Internet II*	1
CPCA 161	Introduction to Web Pages using HTML*	1
DRAF 140	Topics in CAD I:	2
DRAF 151	Introduction to 3D Modeling: SketchUp	1
DRAF 242	Topics in CAD II*	2
DRAF 271	Drafting Internship I*	3
DRAF 272	Drafting Internship II*	3
CET 105	Construction Methods	3
CET 125	Construction Specifications*	2
CET 129	Construction Management	3
CET 150	Construction Safety	3
CET 160	Green Building Fundamentals	3
CET 227	Construction Cost Estimating*	3
INDT 155	Workplace Skills	1
MFAB 152	Manufacturing Materials and Processes	3
ENGR 180	Engineering Land Surveying I*	3

Total Program Hours: 64