

MANUFACTURING TECHNOLOGIES, AAS

Drafting

Associate of Applied Science Degree, Manufacturing Technologies, Drafting is a critical skill for a diversity of industries, including manufacturing, engineering, construction, and architecture. Students in the TMCC drafting program develop both manual and computerized drafting skills, including standard two-dimensional drawings and three-dimensional solid modeling. With an AAS degree, drafters are prepared to work with designers and engineers to develop graphic instructions used to complete a variety of projects.

Outcomes

Students completing the emphasis will:

- Understand drafting conventions including symbols, linetypes, lineweights, and dimension styles as applicable to mechanical drawings.
- Create complex drawings including orthographic projections, pictorials, working drawings, and development drawings; and prepare drawing details including auxiliary views, sections, tolerances, and surface finishes, all within specifications.
- Create complex 3D models to specifications using advanced commands.

AAS degrees are generally non-transfer degrees that are designed for students to enter the workforce.

To earn an AAS degree, students must:

1. Maintain a minimum cumulative GPA of 2.0 (see requirements for graduation.)
2. Complete a minimum of 15 units within the college.
3. Satisfy General Education requirements for the AAS (<http://catalog.tmcc.edu/degrees-certificates/general-education/aas>).
4. Have no financial or library obligation to the college.

Code	Title	Units
General Education Requirements		
<i>Diversity</i>		[3]
<i>Communications/English</i>		6
Recommended:		
ENG 107	Technical Communications I	
<i>Fine Arts/Humanities/Social Science</i>		3
<i>Human Relations</i>		3
Recommended:		
CE 201	Workplace Readiness	
<i>Mathematics</i>		3
Recommended:		
MATH 126	Pre-Calculus I	
<i>Science</i>		3
Recommended:		
PHYS 100	Introductory Physics	
<i>U.S. and Nevada Constitutions</i>		3
Degree Requirements		

DFT 110	Print Reading for Industry	3
MPT 140	Quality Control	3
OSH 222	General Industry Safety	1
Emphasis Requirements		
CADD 100	Introduction to Computer-Aided Drafting	3
CADD 105	Intermediate Computer-Aided Drafting	3
CADD 140	Technical Drafting I	3
CADD 141	Technical Drafting II	3
CADD 142	Technical Drafting III	3
CADD 245	Solid Modeling and Parametric Design	3
CADD 299	Capstone/Assessment	1
Select 3 units from remaining CADD classes		3
DFT 100	Basic Drafting Principles	3
ENGR 100	Introduction to Engineering Design	3
MATH 127	Pre-Calculus II	3
Elective Requirements		
Select one of the following:		3
DFT 240	Introduction to 3D Studio Max	
IS 101	Introduction to Information Systems	
MTT 140	Inspection Techniques	
Total Units		62

1st semester	Units	
CADD 100 Introduction to Computer-Aided Drafting	3	
DFT 100 Basic Drafting Principles	3	
DFT 110 Print Reading for Industry	3	
Humanities/Diversity ¹	3	
Mathematics ²	3	
OSH 222 General Industry Safety	1	
Semester Total		16
2nd semester	Units	
CADD 105 Intermediate Computer-Aided Drafting	3	
CADD 140 Technical Drafting I	3	
CADD 141 Technical Drafting II	3	
English/Communications ²	3	
MATH 127 Pre-Calculus II	3	
Semester Total		15
3rd semester	Units	
CADD 142 Technical Drafting III	3	
Choose any CADD course not required in emphasis ²	3	
Communications/English ¹	3	
U.S. and Nevada Constitutions ¹	3	
MPT 140 Quality Control	3	
Semester Total		15
4th semester	Units	
Elective ²	3	
CADD 245 Solid Modeling and Parametric Design	3	
CADD 299 Capstone/Assessment	1	
Human Relations ²	3	
ENGR 100 Introduction to Engineering Design	3	

Science ²	3
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Semester Total	16
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Total Units	62

¹ See approved General Education list for the AAS Degree. (<http://catalog.tmcc.edu/degrees-certificates/general-education/aas>)

² See program recommendations or requirements.