

ASSOCIATE OF APPLIED SCIENCE - MANUFACTURING TECHNOLOGIES - DRAFTING EMPHASIS

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.

Degree Outcomes

Students completing the degree will:

- Fulfill the requirements of the Associate of Applied Science.
- Demonstrate competency in their specified emphasis.

Emphasis Outcomes

Students completing the emphasis will:

- Understand drafting conventions including symbols, linetypes, linewidths, 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.

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
Course	Title	Units
1st semester		
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		
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		
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

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
Semester Total		16
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.