

Drafting Emphasis

Manufacturing Technologies Degree

Associate of Applied Science

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, 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.

General Education Requirements

Diversity	(3 credits)
Refer to the 'Diversity' section of the general education description of this college catalog for a list of approved courses. Designated diversity courses can be used to fulfill other general education or certificate requirements.	
English/Communications	6 credits
Recommended: ENG 107	
Human Relations	3 credits
Recommended: CE 201	
Quantitative Reasoning	3 credits
Recommended: MATH 126	
Science	3 credits
Recommended: PHYS 100	
Social Science/Humanities	3 credits
U.S. and Nevada Constitutions	3 credits
Total General Education Requirements	21 Credits

Core Requirements

AIT 110	General Industrial Safety.....	1
MPT 140	Quality Control	3
DFT 110	Print Reading for Industry	3
Total Core Requirements		7 Credits

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
CADD Elective	Choose 3 credits from remaining CADD classes...	3
DFT 100	Basic Drafting Principles.....	3
ENGR 100	Introduction to Engineering Design	3
MATH 127	Pre-Calculus II	3
Total Emphasis Requirements		31 Credits

Elective Requirements

Choose one of the following:

DFT 240	Introduction to 3D Studio Max	3
IS 101	Introduction to Information Systems.....	3
MTT 140	Inspection Techniques	3
Total Elective Requirements		3 Credits
Total Degree Requirements		62 Credits

Suggested Course Sequence

First Year	Course #	Title	Credits
1st Semester			
Humanities/ Diversity	AAD 201	History of the Built Environment	3
Core	AIT 110	General Industrial Safety	1
Emphasis	CADD 100	Introduction to Computer-Aided Drafting	3
Emphasis	DFT 100	Basic Drafting Principles	3
Core	DFT 110	Print Reading For Industry	3
Quantitative Reasoning	MATH 126	Pre-Calculus I	3
			Total 16
2nd Semester			
Emphasis	CADD 105	Intermediate Computer-Aided Drafting	3
Emphasis	CADD 140	Technical Drafting I	3
Emphasis	CADD 141	Technical Drafting II	3
Communications	ENG 107	Technical Communications I	3
Emphasis	MATH 127	Pre-Calculus II	3
			Total 15
Second Year	Course #	Title	Credits
3rd Semester			
Elective		Choose CADD course	3
Emphasis	CADD 142	Technical Drafting III	3
English	Elective		3
U.S. and Nevada Constitutions	Elective		3
Core	MPT 140	Quality Control	3
			Total 15
4th Semester			
Elective		Choose from list	3
Emphasis	CADD 245	Solid Modeling & Parametric Design	3
Emphasis	CADD 299	Capstone/Assessment	1
Human Relations	CE 201	Workplace Readiness	3
Emphasis	ENGR 100	Introduction to Engineering Design	3
Science	PHYS 100	Introductory Physics	3
			Total 16
			Degree Total 62