

# Drafting and Design Technology, AAS

## School of Technology

### Program Description

The Drafting and Design Technology, AAS "Computer Aided Drafting & Design (CADD)/Computer Aided Manufacturing (CAM)" provides the student drafter with computer aided drafting and design and computer aided manufacturing hands-on CADD/CAM applications using a micro stand-alone terminal workstation.

### Career Opportunities

Students completing this program will be qualified to enter the workforce as a first level CADD/CAM operator. Significant hands-on experience is essential for CADD/CAM operators to eventually qualify for positions as designers, design technicians or design specialists at a computer terminal.

The following personnel will benefit from a CADD/CAM education: mechanical designers, project engineers, specialists, supervisors, detailers, casual users, vocational trainers and support personnel.

### Program Learning Outcomes

Upon successfully completing this program, students will be able to:

- Develop the ability to execute quantitative design of machine products
- Identify the basic components of a CADD/CAM system (hardware and software)
- Perform an infinite number of 2-d machine tool path computations necessary to produce and advance drafting and design portfolio
- Implement the basic commands necessary to apply the operational skills needed to affect a 2-D CADD/CAM system
- Apply concepts from physics, engineering, mechanics, mathematics, and drafting and apply them to the synthesis of durable mechanical machines and products
- Communicate effectively and appropriately record and report information significant to the job
- Network with machine operators, engineers and customers.

Sugg. Term	Seq #	Course ID	Course Title	Cr.	Prereq/Coreq(Co)	Options Available
1st Fall	1	PDV 101	First Year Seminar	1		
	2	DFT 105	Technical Drafting I	4		
	3	DFT 112	Introduction to Design, Materials and Processing	3		
	4	ENG 161	College Writing	3	ENG 085 with Permission of Instructor, ENG 095 or Placement	
	5	MTH 104	Introduction to Applied Mathematics	4	MTH 050 or Placement	
	6	Elective	Social Science Elective	3	Varies	Page 42 Column III
1st Spring	7	CNC 111	Computer Numerical Control I	4		
	8	DFT 106	Technical Drafting II	4	DFT 105	
	9	ENG 162	Technical Communication	3	ENG 161	
	10	MTH 108	Mathematics for Technologies I	4	MTH 104 (C or better) or Placement	
2nd Fall	11	CNC 112	Computer Numerical Control II	4	CNC 111; MTH 104	
	12	DFT 266	3D Solid Modeling I	4		
	13	EGR 221	Statics and Strength of Materials	4	EGR 101 or Permission of Instructor	
	14	DFT 258	AutoCAD	4		
2nd Spring	15	ARC 262	Piping, Structural Detailing and Electromechanical Drafting	4	ARC 210 or DFT 258	
	16	MTT 111	Machining I	4		
	17	DFT 267	3D Solid Modeling II	4	DFT 266	
	18	PHY 107	Applied Physics	4	MTH 100 or MTH 108	
Minimum Program Credits				65		DDC