

MACHINE TOOL

This program of study emphasizes the skills needed for employment in the manufacturing and machining industries.

- **Technical Certificate Option** - The Technical Certificate in Machine Tool Technology is a two semester program that contains technical and advanced technical courses.
- **Associate of Applied Science Degree Option** - The Associate of Applied Science degree, with a major in Machine Tool Technology, is a four semester program that contains technical, advanced technical and general education courses.

Admission Criteria: Placement test and pre-admission advising.

Technical Education Courses

Fall Semester			Spring Semester		
Course Title		Credits	Course Title		Credits
ENV 102	Safety Orientation (OSHA 10)	1	MTT 130	Special Projects	3
MAT 101	Technical Math	3	MTT 215	Machining II	3
MTT 111	Bench Work	1	MTT 232	CNC Mill Operations	3
MTT 116	Print Reading	3	MTT 233	CNC Lathe Operations	3
MTT 122	Quality Control and Inspection	1	MTT 242	Feature CAM Mills	3
MTT 140	Machining I	3	MTT 243	Feature CAM Lathes	3
MTT 210	Metallurgy	1			
MTT 230	CNC Operations	3			
MTT 235	Workplace Ethics	2			
Semester Total		18	Semester Total		18
Total Technical Certificate Credits					36

General Education Courses.....Credits	
COM 102 Interpersonal Communication or COM 105 Public Speaking.....	3
CSA 105 Introduction to Computer Applications and Concepts.....	3
ENG 100 Technical Writing or ENG 101 English Composition I	3
HUM 101 Ethics in the Workplace or PSY 101 General Psychology	3
MAT 101 Technical Math or MAT 150 College Algebra.....	3
TOTAL GENERAL EDUCATION CREDITS.....	15
TOTAL RELATED ELECTIVE CREDITS	9
TOTAL AAS PROGRAM CREDITS.....	60

PROGRAM OUTCOMES

- Operate machine tool equipment commonly found in industry including manual and computer controlled lathes, milling machines, drill presses, and cutting machines.
- Manufacture parts from various materials in accordance with specifications from blueprints, electronic drawings, and shop sketches.
- Solve quality problems using process planning, technical knowledge, teamwork, mathematics, and critical thinking.
- Apply safety principles in a work environment to minimize hazards and prevent losses to productivity.
- Demonstrate employability skills needed to obtain and retain employment in machine tool and related fields.

GENERAL EDUCATION PROGRAM OUTCOMES

- Compose coherent written communication.
 - Deliver coherent oral communication.
 - Show proficiency in locating, analyzing, documenting, and ethically using information sources.
 - Perform and interpret calculations.
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- Develop logical problem solving skills and/or critical thinking skills.
 - Identify appropriate strategies for gathering, analyzing, and displaying data to draw conclusions from scientific data.
 - Collaborate effectively, which cultivates a respect for human diversity.
 - Demonstrate technology literacy appropriate to area of study.
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