

MACHINE TOOL TECHNOLOGY

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: Math placement test for Technical Math and preadmission 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			
HUM 101	Workplace Ethics	3			
Semester Total		19	Semester Total		18
Total Technical Certificate Credits					37

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 CREDITS9

TOTAL AAS PROGRAM CREDITS60

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.
- 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.