



### General Education Requirements

COMM 101	Intro to Oral Communication	3 hrs.
ENGL 101	Composition I	3
MATH 109	College Algebra	4
Or		
TMAT 103	Technical Mathematics I	4
MATH 128	Trigonometry	3
Or		
TMAT 105	Technical Mathematics II	4
	Physical Science Elective	4
	Social Science/Humanities Elective	<u>3</u>
TOTAL		20-21

### Technical Core Requirements

CAD 101	Introduction to AutoCAD	3
CSCI 101	Intro to Computer & Info Science	4
MFTG 110	Manufacturing Processes	3
MAIN 101	Industrial Electricity & Systems	3
TECH 114	Introduction to Technical Graphics	<u>3</u>
TOTAL		16

### Manufacturing Requirements: Planning & Quality Option

MFTG 101	Principles of Dimensional Metrology	2
MFTG 215	Statistics & Quality Control	3
MFTG 216	Statistical Process Control	2
MTRL 101	Basics of Supply Chain Management	3
MTRL 210	Master Planning of Resources	2
MTRL 220	Detailed Scheduling and Planning	3
MTRL 230	Execution and Control of Operations	3
BUSN 170	Supervision	3
BUSN 220	Principles of Management	<u>3</u>
TOTAL		25

### Manufacturing Requirements: Tool Design Option

CAD 203	Geometric Modeling	3
CAD 204	Product Design	3
CAD 212	Technical Drawing	2
CAD 214	Technical Drawing Applications	3
MFTG 101	Principles of Dimensional Metrology	2
MTT 101	Machine Tool I	4
MTT 110	Tool Making I	3
MTT 150	Ferrous Metallurgy	<u>3</u>
TOTAL		24

### Manufacturing Requirements:

#### Machining Option

MFTG 101	Principles of Dimensional Metrology	2
MFTG 120	Computer Numerical Controlled Manufacturing	4
MFTG 215	Statistics & Quality Control	3
MTT 101	Machine Tool I	4
MTT 110	Toolmaking I	3
MTT 150	Ferrous Metallurgy	3
MTT 201	Machine Tool II	3
MTT 210	Toolmaking II	<u>3</u>
TOTAL		25

### Program Description:

Manufacturing Technology is a comprehensive program designed to prepare graduates for employment or advancement in industrial/manufacturing organizations as technicians, engineering aids or first-line supervisors. Students will learn the processes involved in mass production, the selection of appropriate materials, tools and equipment, and how to inspect and handle parts, equipment and the finished product.

Manufacturing technologists assist industrial and manufacturing engineers with problems involving efficient use of personnel, materials, and machines to produce goods. They prepare layouts of machinery and equipment, prepare charts, graphs and diagrams to illustrate workflow, develop and maintain quality control systems, program machines, design production tooling and improve processes. Technologists also perform studies and analyze production costs.

### Career Opportunities & Earning Power:

Salary surveys indicate the average salary for Manufacturing Technicians ranges from \$23,000-\$38,000/year. The average entry-level salary is about \$20,000/year. Salary levels vary by region in the state.

Manufacturing technicians are often promoted to advanced positions. Such positions might include production supervisors, plant layout engineers, quality control engineers and production planners. Additional education will enhance advancement opportunities.

