


## General Manufacturing Major (9430)

### Associate of Applied Science Degree

The General Manufacturing major prepares students for employment as engineering technicians at the operations level in manufacturing industries having a concentration in computer applications. Technicians assist in the design and implementation of manufacturing process systems that include numerical control equipment, computer aided part programming, computer aided manufacturing, factory automation, and flexible manufacturing cells and systems.

Course	Title	Credit Hours
<b>First Semester</b>		
CADT 1100	Introduction to AutoCAD	3
CIMN 1110	Machining Processes	3
ENGL 1110 or ENGL 1111	English Composition I (A) <sup>1</sup> or English Composition I (B)	3
ENGR 1000	Introduction to Engineering Technology	2
FYEX 1000	First Year Experience	1
MATH 1080	Introduction to Technical Mathematics	4
Credit Hours		16
<b>Second Semester</b>		
CIMN 1210	Materials Processing	3
COMM 1000 or COMM 1100	Effective Public Speaking or Effective Interpersonal Communications	3
MATH 1180	Technical Mathematics I	4
MECT 1150	Technical Communications	3
MECT 1600	Geometric Dimensioning and Tolerancing	2
PHYS 1200	Applied Physics Heat and Thermodynamics	3
Credit Hours		18
<b>Third Semester</b>		
CADT 2100	Introduction to SolidWorks	3
CIMN 2190	Manufacturing Methods and Costs	3
CIMN 2240	Jig and Fixture Design	3
PHYS 1100	Applied Physics Mechanics	3
<b>1st 8 weeks</b>		
CIMN 1420	Computer Numerical Control Part Programming (CNC)	2
<b>2nd 8 weeks</b>		
CIMN 1430	Introduction to Computer Assisted Part Programming	2
Credit Hours		16
<b>Fourth Semester</b>		
CIMN 1450	Programming CNC Lathes	2
CIMN 1460	Programming CNC Machining Centers	2
CIMN 2875	Design and Manufacturing Capstone	3
QENT 1200	Quality Concepts and Techniques	2
Select course(s) from the Arts and Humanities Electives list		3
Select course(s) from the Social and Behavioral Sciences Electives list		3
Credit Hours		15
Total Credit Hours		65

<sup>1</sup> English course selection is based on placement test results (ENGL 1111 English Composition I (B) is 4 credits, only 3 credits apply to the degree).

 This course is designated as a technical course in the program. Students must earn a "C" grade or higher in the course to fulfill the college's graduation requirements policy.

## Electives

Course	Title	Credit Hours
<b>Arts and Humanities</b>		
ARTS 1120	Art Appreciation	3
ARTS 2220	Survey of Art I	3
ARTS 2230	Survey of Art II	3
ENGL 2250	Survey of American Literature I	3
ENGL 2260	Survey of American Literature II	3
ENGL 2280	Survey of British Literature I	3
ENGL 2290	Survey of British Literature II	3
HUMX 1100	Introduction to Humanities	3
HUMX 1200	The American Experience in the Arts	3
MUSC 1200	Music Appreciation	3
MUSC 1215	World Music	3
MUSC 1800	Popular Music: Rock, Jazz, Country, and Hip-Hop	3
MUSC 2200	Music History and Literature I	3
MUSC 2250	Music History and Literature II	3
PHIL 1500	Introduction to Philosophy	3
PHIL 2000	Comparative Religion	3
PHOT 1000	History of Photography	3
<b>Social and Behavioral Sciences</b>		
ANTH 1160	Introduction to Cultural Anthropology	3
ECON 1150	Basic Economics	3
ECON 2500	Principles of Macroeconomics	3
ECON 2600	Principles of Microeconomics	3
GEOG 1500	Introduction to Geography	3
GEOG 1600	World Regional Geography	3
GEOG 2500	World Cultural Geography	3
HIST 1150	Western Civilization I: Antiquity Through the Reformation	3
HIST 1250	Western Civilization II: Age of Revolution Through the Present	3
HIST 2150	U.S. History: Colonization Through Reconstruction	3
POLS 1300	U.S. National Government	3
POLS 2500	Modern Political Ideologies	3
PSYC 1500	Introduction to Psychology	3
SOCY 1150	Principles of Sociology	3