

Associate of Applied Science Degree Engineering Technologies

Computer Integrated Manufacturing Technology

Automation Concentration (9436)

The Automation Concentration prepares students for employment in manufacturing industries having a concentration in automated assembly. Students will study aspects of automated assembly and process control, including programmable controllers, computer assisted part programming, CAD/CAM systems, computerized instrumentation, and robotics.

NOTE: Students without prior exposure to machining will find CIMN 0950 *Introduction to Machine-Tool Technology* helpful in gaining machining experience for CIMN 1110.

First Semester:

CADT 1100	Introduction to AutoCAD	3
CIMN 1110	Manufacturing Processes I	3
ENGL 1110*	English Composition I (A)	3
OR		
ENGL 1111	English Composition I (B)	
MATH 1101	Technical Mathematics I	4
MECT 1000	Introduction to Technology	2
PHYS 1100	Applied Physics I	3

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Second Semester:

CADT 1500	Advanced AutoCAD	3
CIMN 1210	Manufacturing Processes II	3
MATH 1201	Technical Mathematics II	4
MECT 1150	Technical Communications	3
MECT 1600	Geometric Dimensioning and Tolerancing	2
PHYS 1200	Applied Physics II	3

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Third Semester:

CADT 2100	Introduction to SolidWorks	3
CIMN 2240	Jig and Fixture Design I	3
CIMN 2610	Automation and Robotics	3
PHYS 2100	Applied Physics III	2
Choose course(s) from the Technical Electives list		2

(1st 8 weeks)

CIMN 1420	Computer Numerical Control Part Programming	2
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(2nd 8 weeks)

CIMN 1430	Introduction to Computer Assisted Part Programming	2
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Fourth Semester:

CIMN 2390	Fluid Power Technology	3
CIMN 2875	Design and Manufacturing Capstone	3
QENT 1200	Quality Concepts and Techniques	2
SPCH 1050**	Fundamentals of Public Speaking	2

OR

SPCH 1150 **Fundamentals of Interpersonal Communication** .

Choose course(s) from the Arts and Humanities Electives list 3

Choose course(s) from the Social and Behavioral Sciences Electives list 3

Choose course(s) from the Technical Electives list 3

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Program Total: 72

**English course selection is based on placement test results (ENGL 1111 is 4 credits, only 3 credits apply to the degree).*

*** Students may substitute either SPCH 1000 or SPCH 1100. One of these 3 credit courses may be required for students transferring to a four-year college.*

Technical Electives: minimum 5 credits

CADT 2500	Advanced SolidWorks	3
CIMN 1440	Advanced Computer Assisted Part Programming	2
CIMN 1450	Programming CNC Lathes	2
CIMN 1460	Programming CNC Machining Centers	2
CIMN 2190	Manufacturing Methods and Costs	3
CNET 1100	Cisco Networking Technology I	2
CNET 1200	Cisco Networking Technology II	2
CNET 1300	Cisco Networking Technology III	2
CPET 1050	Assembling, Upgrading and Repairing Personal Computers	2
CPET 1100	C Programming for Engineering Technology I	2
CPET 1200	Visual Basic for Engineering Technology I	2
CPET 2050	Advanced Assembly and Repair of Personal Computers	2

Arts and Humanities Electives: minimum 3 credits

ARTS 1120, 2220, 2230; 2240, 2245; ENGL 2250, 2260, 2280, 2290; HUMX 1100, 1200; MUSC 1200, 2200, 2250; PHIL 1500, 2000

Social and Behavioral Sciences: minimum 3 credits

ANTH 1160; ECON 1150, 2500, 2600; GEOG 1500, 1600, 2500; HIST 1100, 1200, 2100, 2200, 2400; POLS 1300, 2500; PSYC 1500; SOCY 1150