

# 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 . . . . .	Machining Processes . . . . .	3
<b>ENGL 1110*</b> . . . . .	<b>English Composition I (A)</b> . . . . .	3
<b>OR</b>		
<b>ENGL 1111</b> . . . . .	<b>English Composition I (B)</b> . . . . .	
ENGR 1000 . . . . .	Introduction to Engineering Technology . . . . .	2
MATH 1101 . . . . .	Technical Mathematics I . . . . .	4
PHYS 1100 . . . . .	Applied Physics I . . . . .	3

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#### Second Semester:

CADT 1500 . . . . .	Advanced AutoCAD . . . . .	3
CIMN 1210 . . . . .	Materials Processing . . . . .	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

<b>SPCH 1050**</b> . . . . .	<b>Fundamentals of Public Speaking</b> . . . . .	2
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#### OR

<b>SPCH 1150</b> . . . . .	<b>Fundamentals of Interpersonal Communication</b>	
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	Choose course(s) from the Arts and Humanities Electives list . . . . .	3
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	Choose course(s) from the Social and Behavioral Sciences Electives list . . . . .	3
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	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 1120 . . . . .	C Programming for Engineering Technology . . . . .	3
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; ENGL 2250, 2260, 2280, 2290; HUMX 1100, 1200; MUSC 1200, 1215, 1800, 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