



Program Description

The Computer Integrated Machining program consists of both classroom and lab experiences. Hands-on application through the completion of projects will be emphasized. As a result, students will become familiar with the various machines, design methods, manufacturing processes, and safety practices associated with the machining industry. Students will have several career options to choose from upon graduation.

Program Core Competencies

1. Conduct computer software operation (CAD/CAM)
2. Develop computer machining skills (CNC)
3. Develop safe machining practices
4. Produce quality machined parts
5. Measure quality machined parts



Degrees and Diplomas

Computer Integrated Machining
A.A.S. Degree

Computer Integrated Machining
Diploma

Computer Integrated Machining
Certificate



Production





Offered on North Mankato Campus

Admission Date: Fall Semester

Computer Integrated Machining A.A.S. Degree (72 Credits)

AAS3458

REQUIRED TECHNICAL COURSES

	54
CIM1110	4
CIM1120	3
CIM1130	3
CIM1140	5
CIM1150	3
CIM1210	4
CIM1220	3
CIM1230	2
CIM1240	3
CIM2110	4
CIM2120	3
CIM2130	3
CIM2140	4
CIM2210	4
CIM2220	3
CIM2230	3

REQUIRED LIBERAL ARTS & SCIENCES

3
To complete an A.A.S. Degree, students must complete 18 MNTC credits from 3 of the 10 MNTC Goal Areas (combination of required and recommended). See pgs. 56-62 for more information. Courses must be selected in consultation with advisor/faculty.

MNTC - Goal Area 1: Communications

SPCH100	3
SPCH110	3
SPCH120	3

ELECTIVE CREDITS

LIBERAL ARTS & SCIENCES **15**

Courses must be selected in consultation with advisor/faculty.
Recommended:

<i>MNTC - Goal Area 1: Communications</i>	
ENGL100	4
<i>MNTC - Goal Area 2: Critical Thinking</i>	
HUM100	3
<i>MNTC - Goal Area 3: Natural Sciences</i>	
CHEM108	4
PHYS101	3
<i>MNTC - Goal Area 4: Mathematical/Logical Reasoning</i>	
MATH120	4

Course Descriptions See pages 205-256 to find course descriptions for the courses listed above.

ONLINE Options This program has an online option for one or more of its courses. Contact Advisor for online option availability. For more information visit online.southcentral.edu

Computer Integrated Machining Diploma



Offered on North Mankato Campus


Admission Date: Fall Semester

Computer Integrated Machining Diploma (63 Credits)

DIP3459

REQUIRED TECHNICAL COURSES		60
CIM1110	Concept Engineering I	4
CIM1120	Computer Control Programming I	3
CIM1130	Quality Assurance I	3
CIM1140	Applications I	5
CIM1150	Machining Computations	3
CIM1210	Concept Engineering II	4
CIM1220	Computer Control Programming II	3
CIM1230	Quality Assurance II	2
CIM1240	Applications II	3
CIM2110	Concept Engineering III	4
CIM2120	Computer Control Programming III	3
CIM2130	Quality Assurance III	3
CIM2140	Applications III	4
CIM2210	Concept Engineering IV	4
CIM2220	Computer Control Programming IV	3
CIM2230	Quality Assurance IV	3
CIM2240	Applications IV	4
CIM2250	Applied Welding	2

REQUIRED LIBERAL ARTS & SCIENCES		3
<i>Courses must be selected in consultation with advisor/faculty.</i>		
<i>MNTC - Goal Area 1: Communications</i>		
SPCH100	Interpersonal Communication <i>or</i>	3
SPCH120	Small Group Communication	3

 See pages 205-256 to find course descriptions for the courses listed above.



Offered on North Mankato Campus

Admission Date: Fall Semester

Computer Integrated Machining Certificate (30 Credits)

CERT3462

REQUIRED TECHNICAL COURSES		30
CIM1110	Concept Engineering I	4
CIM1120	Computer Control Programming I	3
CIM1130	Quality Assurance I	3
CIM1140	Applications I	5
CIM1150	Machining Computations	3
CIM1210	Concept Engineering II	4
CIM1220	Computer Control Programming II	3
CIM1230	Quality Assurance II	2
CIM1240	Applications II	3

Course
Descriptions

See pages 205-256 to find course descriptions for the courses listed above.