

2018-2019

SOUTHEAST  
COMMUNITY  
COLLEGE  
NEBRASKA

# PRECISION MACHINING & AUTOMATION TECHNOLOGY

Associate of  
Applied Science  
Degree

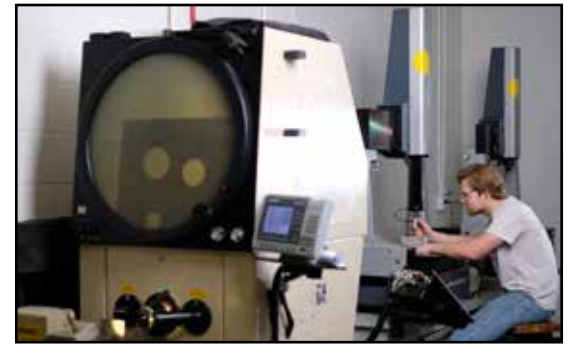
Diploma

MILFORD CAMPUS

[www.southeast.edu/PrecisionMachining](http://www.southeast.edu/PrecisionMachining)



*SCC's program prepares students for an exciting, fast-paced career in manufacturing. Students can specialize in Tool Making, Mold Making, CNC Machining, and Manufacturing Automation. The Eicher Technical Center in Milford has one of the largest precision machining training facilities in the country.*



## Types of jobs available:

- Tool Maker
- Die Maker
- Mold Maker
- Precision Machinist
- Machine Builder
- CNC Programmer
- CNC Operator

## Graduate Earnings

Recent graduates report an average starting wage of \$19.35 per hour.

## For more information contact:

Kirby Taylor, Program Chair  
402-761-8369, 800-933-7223 ext. 8369  
[ktaylor@southeast.edu](mailto:ktaylor@southeast.edu)

or the College Admissions Office  
Milford 402-761-8243, 800-933-7223 ext. 8243

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A0750 - PMAC (05/18)



*"I chose the Precision Machining & Automation Technology program because I knew the job opportunities would be amazing. I have had a job lined up since my third quarter in the program. The company I work for while attending school knows that SCC is a really great school and that the skills I learn at SCC will be a great benefit to their machine shop. The new machining area at SCC is really nice and gives students more opportunities to learn CNCs with hands-on experience."*

- Eric Adams, Lincoln, Neb.

## General Education Requirements:

Contact your program advisor to select general education courses from each category, which will meet your program's graduation requirements. See the General Education pages online for a complete list.

(One class from each area below).

Oral Communications		
SPCH1110 Public Speaking (Recommended)	4.5	
Written Communications		
ENGL1010 Composition I (Recommended)	4.5	
Critical Thinking & Problem Solving		
MATH1050 Thinking Mathematically (Recommended)	4.5	
Analytical, Quantitative, and Scientific Reasoning		
ECON1200 Personal Finance (Recommended)	4.5	
Career and Life Skills		
BSAD10110 Microsoft Applications I (Recommended)	4.5	
	22.5 hours	

## Required MACH Core Courses:

Course #	Course title	Credit hrs
MACH1121	Manufacturing Processes	3.5
MACH1156	Blueprint Reading & Drawing	3.0
MACH1173	Machine Tool Lab I	3.5
MACH1174	Machine Tool Lab II	3.0
MACH1223	Machine Tool Lab III	3.0
MACH1224	Machine Tool Lab IV	4.0
MACH1225	Materials of Industry	5.0
MACH1241	Machinery's Handbook	5.0
MACH1250	Computer Aided Drafting	3.0
MACH1324	Machine Tool Lab V	7.0
MACH1349	CNC I	6.0
MACH1428	Machine Tool Lab VI	5.5
MACH1451	CNC II	7.0
MACH1454	CAM	4.0
	62.5 hours	

## Diploma:

To complete the Diploma, a total of nine (9.0) general education requirements must be fulfilled. This includes one math course plus one other general education course from Oral or Written Communications.

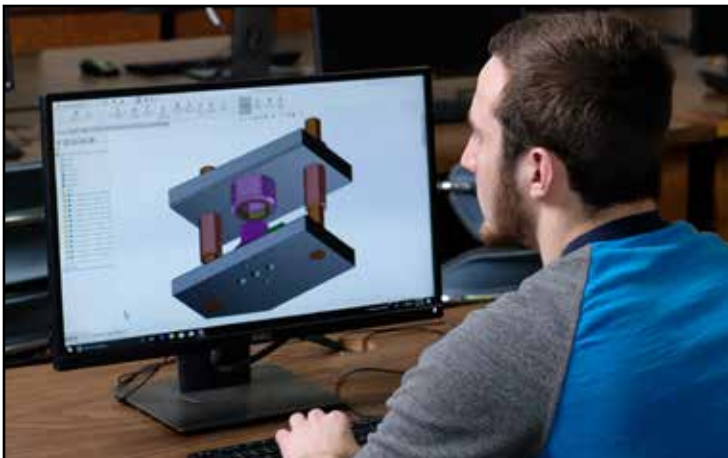
## MACH A.A.S. Degree Requirements:

### Tool Maker Focus:

Course #	Course title	Credit hrs
MACH2530	Die Design	2.0
MACH2532	Die Making Lab	7.0
MACH2535	Mold Theory	5.0
MACH2537	Injection Mold Design	2.0
MACH2538	Mold Making Lab	7.0
MACH2547	Die Theory	5.0
	28.0 hours	

### CNC & Automation Focus:

Course #	Course title	Credit hrs
MACH2510	Automation Fundamentals	5.0
MACH2520	Automated Equipment Design	2.0
MACH2536	Automated Equipment Design Lab	7.0
MACH2641	Advanced CNC Fundamentals	5.0
MACH2651	CNC Design and Programming	2.0
MACH2660	Advanced CNC Lab	7.0
	28.0 hours	



## Estimated Expenses

Nebraska Resident tuition/fee rate is \$69.50 per credit hour. Out-of-state tuition/fee rate is \$83.50 per credit hour. Graduation fee is \$25.

Housing is available at Beatrice and Millford campuses only. Tuition, books and fees are dependent upon classes taken each quarter.

Students should plan a budget that includes room, meals, clothing, laundry, medical care, recreation and entertainment, transportation, insurance, etc.

FIRST QUARTER EXPENSES		FOURTH QUARTER EXPENSES	
Tuition And Fees	\$1,564	Tuition And Fees	\$1,460
Books	620	Books	130
Tools	200	<b>Total</b>	<b>\$1,590</b>
<b>Total</b>	<b>\$2,384</b>	FIFTH QUARTER EXPENSES	
SECOND QUARTER EXPENSES		Tuition And Fees	\$1,286
Tuition And Fees	\$1,355	Books	225
Books	180	<b>Total</b>	<b>\$1,511</b>
Tools	2,000	SIXTH QUARTER EXPENSES	
<b>Total</b>	<b>\$3,535</b>	Tuition And Fees	\$973
THIRD QUARTER EXPENSES		Books	175
Tuition And Fees	\$1,355	<b>Total</b>	<b>\$1,148</b>
Books	95	<b>Total Estimate For Program</b>	<b>\$11,618</b>
<b>Total</b>	<b>\$1,450</b>		

## Basic Tools for Program

Detailed tool list with options and estimated pricing available on request.

**Toolbox** - A toolbox is not required as SCC can provide students with toolboxes. However, it is common for students to purchase their own. If a student chooses to purchase their own toolbox, it must be a roll-away unit where both the lower and upper units can be locked for security and **cannot exceed 30 inches** in length due to space consideration in the lab.

### Tools Required For First Quarter

- 6" Dial Calipers
- Safety Glasses

### Tools Required For Second Quarter

- 0 to 1" Micrometer
- 1" to 2" Micrometer
- 1" Travel Dial
- Magnetic Base for Indicator
- Test Indicator
- Combination Square
- Small Hole Guages
- Telescoping Guages
- Center Guage
- 6" Flexible Steel Rule
- Scriber
- Edge Finder
- Adjustable Wrench
- Ball Peen Hammer
- Screwdriver
- Slip Joint Pliers
- File Card
- Tap Wrench
- 10" mill 2nd cut file
- File Handle
- Chip Brush
- Chuck Key
- Standard Hex Key Set
- Metric Hex Key Set
- Center Punch
- Prick Punch
- Pin Punch
- Drill Point Guage
- Deburring Tool
- India Stone
- Mighty Mag
- ½" Tape Measure
- Indical
- Drill Bit Set

