



Associate of Applied Science Degree Diploma

Credit Hours Required for Graduation:
Diploma 34.5
Associate of Applied Science Degree: 70.0
- Tool Maker Focus
- CNC & Automation Focus



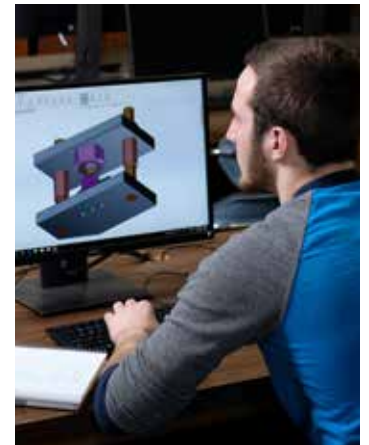
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SCC's program prepares students for an exciting, fast-paced career in manufacturing. Students can specialize in Tool Making, Mold Making, CNC Machining, and Manufacturing Automation. The Eicher Technical Center in Milford has one of the largest precision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

Why SCC?

SCC has a modern lab environment that boasts more than 140 machine tools in a 15,000 square-foot facility. From the most basic of manual equipment to CNC machines that are coupled to fully automated robotic cells, students are able to learn in an environment that is truly representative to what they will experience in industry. Our students will spend approximately 1,000 hours in the lab operating equipment and building components required for classes and designing their own custom tooling and automated equipment. In the world of manufactured components, there is no comparison to the quality of education you will receive from the Precision Machining and Automation Technology program at SCC.



"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 term 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.



Top Career Options

- Tool, Die and Mold Maker
- Precision Machinist
- Machine Builder
- CNC Programmer
- Tooling & Equipment Designer



Graduate Earnings

Recent graduates report an average starting wage of \$23 per hour.



2019-2020 Tuition/Fee Rate Per Credit Hour	
Nebraska Resident	\$108
Out-of-state tuition/fee rate	\$129
Estimated Expenses	
Tuition/Fees	\$ 7560
Books	1425
Special Fees	0
Tools/Supplies	2200
Total:	\$11,185

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 for a complete list.

(One class from each area below).

GELO #1: Oral Communications		
SPCH1110	Public Speaking (Recommended)	3.0
GELO #2: Written Communications		
ENGL1010	Composition I (Recommended)	3.0
GELO #3: Critical Thinking & Problem Solving		
ECON1200	Personal Finance (Recommended)	3.0
GELO #5: Analytical, Quantitative and Scientific Reasoning		
MATH1050	Thinking Mathematically (Required)	3.0
GELO #6: Career and Life Skills		
BSAD1010	Microsoft Applications I (Recommended)	3.0
		15.0 hours

Required MACH Core Courses

Course #	Course title	Credit hrs
MACH1121	Machining Fundamentals	2.0
MACH1156	Blueprint Reading & Drawing	3.0
MACH1175	Precision Machine Lab I	5.0
MACH1226	Precision Machine Lab II	4.0
MACH1225	Materials of Industry	3.0
MACH1241	Machinery's Handbook	3.0
MACH1250	Computer Aided Drafting (CAD)	2.0
MACH1324	Precision Machine Lab III	4.5
MACH1349	CNC I	4.0
MACH1428	Precision Machine Lab IV	4.5
MACH1455	CNC II & CAM	6.0
		41.0 hours

MACH A.A.S. Degree Requirements

Tool Maker Focus

Course #	Course title	Credit hrs.
MACH2539	Mold and Die Design	3.0
MACH2532	Stamping Die Construction	3.5
MACH2535	Mold Theory	2.0
MACH2538	Injection Mold Construction	3.5
MACH2547	Die Theory	2.0
		14.0 hours

CNC & Automation Focus

Course #	Course title	Credit hrs.
MACH2510	Automation Theory	2.0
MACH2652	Advanced CNC and Automation Design	3.0
MACH2536	Automated Equipment Lab	3.5
MACH2641	Advanced CNC Theory	2.0
MACH2660	Advanced CNC Lab	3.5
		14.0 hours

Diploma

To complete the Diploma, a total of two general education requirement credits must be fulfilled. This includes one math course (MATH1050-required) plus one other general education course from Oral or Written Communications.

Course #	Course Title	Credit hrs.
MACH1121	Machining Fundamentals	2.0
MACH1156	Blueprint Reading & Drawing	3.0
MACH1175	Precision Machine Lab I	5.0
MACH1225	Materials of Industry	3.0
MACH1226	Precision Machine Lab II	4.0
MACH1241	Machinery's Handbook	3.0
MACH1324	Precision Machine Lab III	4.5
MACH1349	CNC I	4.0
		28.5 hours

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 Term

- 6" Dial Calipers
- Safety Glasses

Tools Required For Second Term

- 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
- 1/2" Tape Measure
- Indical
- Drill Bit Set

