



Personality + Career

Students in SCC's Precision Machining and Automation Technology program are curious about how things are made, are creative, and often think about how to improve an item or how to make something work better. They like to see their work progress to a finished item and work with machines and tools. Organization and a strong attention to detail are also important.

Program	Credential	What do students learn in the program?	What do students earn?	Career Opportunities	Required Tools, Supplies, and Uniforms
Precision Machining and Automation Technology	Diploma	Students learn to operate equipment used for drilling, boring, turning, milling, and grinding. They also learn about tool geometry, speeds, feeds, and cutting fluids, giving them a strong foundation. Students will learn to read blueprints and the properties, uses, specifications, and availability of materials such as steel and iron. They will learn basic programming and operation of a Haas CNC milling machine and of Coordinate Measuring Machine.	No salary data available for the diploma.	Machinist	Tools are required. List provided. No uniform is required for this program.
Precision Machining and Automation Technology	Associate of Applied Science	In addition to the skills noted above, students learn the fundamentals of 2D CAD systems and full 3D solid modeling using Solidworks. Students will also advance their CNC skills and learn Computer Aided Manufacturing utilizing Mastercam CAM software. Students can choose the Tool Maker focus or the CNC & Automation Focus, allowing them to further develop their skills in a specific area.	\$22.65 per hour; \$47,112 annually	CNC Programmer/Set-up Manual Machinist Tooling Designer Precision Tool Maker	Tools are required. List provided. No uniform is required for this program.

Related Programs at SCC:

- Electronic Systems Technology
- Electrical/Electromechanical Technology
- Energy Generation Operations
- Design & Drafting Technology (Computer Aided Design & Drafting focus)
- Manufacturing Engineering Technology
- Nondestructive Testing Technology
- Technical Skills Instructor
- Welding Technology

» Your Next Steps to Choose SCC

- ▶ Schedule a Campus Visit - southeast.edu/visit
- ▶ Explore career options with an Admissions Counselor - southeast.edu/admissionsadvising
- ▶ Apply - southeast.edu/applynow

» Paying for SCC

- ▶ Free Application for Federal Student Aid (FAFSA) - studentaid.gov/h/apply-for-aid/fafsa
- ▶ Scholarships - southeast.edu/scholarships
- ▶ Payment Plan - mycollegepaymentplan.com/southeast
- ▶ Veteran Education Benefits - southeast.edu/veterans-services
- ▶ GAP Assistance Program - southeast.edu/gap
- ▶ Children of State Teammate Tuition Reimbursement Program - southeast.edu/children-of-state-teammate-tuition-reimbursement-program



Scan this code to access the course listing

Contact Admissions to get started!

402-437-2600, 800-642-4075 ext. 2600

✉ admissions@southeast.edu



Anything that is built, regardless of size, requires a machinist to be involved in the process – they are the parts makers of the world. As quickly as the world changes, so do the things that people buy and build every day. SCC's Precision Machining and Automation Technology program is constantly changing to keep up with the needs of the world's manufacturers so our students can be provided with an excellent career opportunity.

Students learn the necessary foundational processes that are needed, as well as modern methods of machining, both traditional and computerized. Students also gain knowledge and experience in tooling and materials selection, blueprint reading, measurement, project layout, and design and build of projects.

Program Contact Information

Kirby Taylor, Program Chair
402-761-8369, 800-933-7223 ext. 8369
✉ ktaylor@southeast.edu

The SCC Experience

- » The SCC Precision Machining and Automation Technology program is hands-on! Students spend 175-275 hours in the lab each semester for a total of 900+ hours for the entire program. The 12:1 student-to-faculty ratio in the program ensures that students receive significant personal attention while they learn.
- » Approximately 75% of students enter the program with little or no machining experience, and due to the experienced SCC faculty, graduate with highly sought-after machining skills from employers all over the country. The job demand for machinists is high and available in many fields. Faculty are committed to student success and will help them achieve their goals!
- » Associate of Applied Science students, in their fourth semester, have the opportunity to design and build their own capstone project. Students design all elements of their project and then create their functional project. This project equips students with the skills, experience, and confidence that enables them to immediately make an impact in the workforce.
- » SCC and regional industry partners have invested significant resources into the Precision Machining and Automation Technology program. The lab features CNC machines, lathes, grinders, drill presses, and milling machines. SCC has one of the largest machining labs in the country and is committed to ensuring students learn on up-to-date equipment so they are ready for any worksite.



TOOLS

Many tools are provided and students are only asked to purchase minimum tools in their first term, giving them time to explore and learn. Students then add to tools in future semesters. Tools are an investment in a student's career and SCC works with a variety of tool vendors to give students options. Many vendors offer students a significant discount. Students can also purchase tools from other vendors not associated with the College. Program faculty and advisors will provide students with specific information related to tools prior to the start of their first semester.

During the first week of each semester, tool vendors come to campus and provide students with options to buy single tools or tool sets based on program needs. Faculty will be available to help students make selections based on course and program needs.

Precision Machining & Automation Technology - Required Basic Tool List

TOOLS REQUIRED BY WEEK THREE OF FIRST TERM:

- | | | | |
|-------------------------------|------------------------------|-------------------------------------|--------------------------|
| • Safety Glasses, (2 pr) | • Gage Set, 1/32-1/4 Radius | • Tap Handle, 9" | • Tape Measure, 1/2" |
| • Steel Rule, 6" Flexible | • Gage Set, 17/32-1/2 Radius | • Tap Handle, 6" | • Parallel Set |
| • Dial Calipers, 6" | • Scriber | • Chuck Key, K3 size | • Test Indicator, .0005" |
| • Micrometer, 0-1" | • Edge Finder | • Pliers, Slip Joint | • Holder, Test Indicator |
| • Micrometer, 1-2" | • Screwdriver Set, 2-pc | • Hex Key Set, Standard | • Drill Set, 115 pc |
| • Travel Indicator, 1" | • Wrench, Adjustable | • Hex Key Set, Metric | • Layout Fluid |
| • Indicator Base, Magnetic | • Hammer, Brass | • Center Punch | • Diamond Dresser Insert |
| • Indicator Base Kit, Compact | • Hammer, Dead Blow | • Prick Punch | |
| • Precision Square, 6" | • File, Second Cut, Mill | • Countersink Set | |
| • Gage, Drill Point | • File Handle | • Deburring Tool | |
| • Gage, Center | • File Card | • Deburring Tool Replacement Blades | |
| • Gage, 60° Thread Pitch | • Chip Brush | • India Stone | |

Approx Total: \$2,075

TOOLS REQUIRED BEFORE BEGINNING SECOND TERM:

- | | | | |
|--------------------|--------------------------|------------------------|-----------------|
| • Depth Micrometer | • Test Indicator, .0001" | • Gage Set, Small Hole | • Pin Punch Set |
| • Arkansas Stone | • Gage Set, Telescoping | • Hammer, Ball Peen | |

Approx. Total: \$850

The program can provide rolling tool cabinets for student use, however students are encouraged to purchase their own.

*** Space in the lab is limited. Tool cabinets in excess of 30"W x 24"D are not permitted for student use, and will be turned away. ***

SCC instructors can provide you with tool vendors so you can receive special SCC student discount pricing.



Program	Credential	Location	Credit Hours Required	Resident cost*	Non-Resident cost*	Starting Term(s)	Number of Semesters Required - Full Time	Is Summer Term Required for Full Time?	Online Option	Can the Program be Completed Entirely Online?	Part-Time Option	Number of Semesters Required - Part Time	Is Summer Term Required for Part Time?	Typical Class Schedule
Precision Machining and Automation Technology	Diploma	Milford	29.5	\$6,354.50	\$6,974	Fall and Spring	2	No	No	No	Yes	3-4	No	Monday - Thursday, 8 am - 4 pm, Friday, 8 am- Noon
Precision Machining and Automation Technology	Associate of Applied Science	Milford	64.5	\$11,092.50	\$12,447	Fall and Spring	4	No	No	No	Yes	8	No	Monday - Thursday, 8 am - 4 pm, Friday, 8 am- Noon

*Listed program costs are approximate and subject to change based on market price of books, supplies, tools, uniforms, etc. Estimated costs include tuition, fees, books, supplies, tools, uniforms, etc.