



Program Requirements

- **Books/Software:** \$2,400. Visit pine.edu/campus-store for details.
- **Laptop:** Premium version required. Visit pine.edu/supplies for required specifications.
- **Tools/Supplies:** See details below.
- **Uniform:** Not required.

Tool Requirements

If you already have some of these tools and would like to order the remainder on your own, please consider the recommendations for tools listed above. A student discount is available from MSC Industrial Supply, and the remainder can be found online. These tools are required for the certificate, diploma, and AAS degree program on day one. The recommendations are made to provide the highest quality tools while also keeping them affordable. Please take that into consideration when purchasing your tools.

Qty.	Description	Estimated Cost	Standard Package	Optional Package
1	Personal laptop computer. Required specifications: CPU - Intel i7 or i9 8500 series and up, RAM - 32GB minimum, Storage - 1TB or larger, OS - Windows 10 or 11 64-bit, VRAM - 2GB minimum. (Laptops tailored for this program are available via the Campus Store.)			
1	USB flash drive. 16GB max.	\$10		
1	Safety glasses with side shields. Z87+ rated. Over the glass safety glasses required if you wear prescription glasses. Required at all times in lab environment. (Basic safety glasses available in the Campus Store.)	\$5		
1	6-inch scale/steel rule in fractions and decimals. Must have 32nds, 64ths, 50ths, and 100ths of an inch. Recommended model: General Tools #616.	\$12	X	X
1	6-inch dial caliper. No digital. Recommended model: SPI 17-982-0 or Fowler 52-008-706.	\$45	X	X
1	Outside micrometer. 0 to 1-inch range. Vernier reading to 4th decimal place. Recommended model: SPI 17-640-4. Kit that includes all three micrometers: SPI 17-634-7.	\$35	X	X
1	Dial indicator. 1-inch travel and 0.001" graduations. Recommended model: SPI 22-300-8.	\$65	X	X
1	Magnetic indicator base. Recommended model: Mighty Mag 400-1.	\$30	X	X
1	Dial test indicator. 0.0005" graduations. 0.03" range. An indicator holder is also required. Combination kit recommendation: SPI 13-726-5. Individual purchase recommendation: SPI 21-378-5 and Indicol 178.	\$75	X	X



Pine Technical & Community College

A MEMBER OF MINNESOTA STATE

900 Fourth Street SE • Pine City, MN 55063

Qty.	Description	Estimated Cost	Standard Package	Optional Package
1	Steel angle protractor. Recommended model: General Tools #17.	\$17	X	X
1	25-piece radius gage set. 1/64" to 1/2"-inch range. Recommended model: Accusize 3602-5021.	\$50	X	X
1	Standard screw pitch gage. Recommended model: Mitutoyo 188-111 or Grip 35428.	\$10	X	X
1	60-degree thread center gage. Recommended model: SPI 13-658-0.	\$15	X	X
1	6-inch precision machinist square. Recommended model: SPI 13-627-5.	\$20	X	X
1	Thread measuring wire set. Recommended model: Accusize EG06-1001.	\$17	X	X
1	Single ended edge finder. 0.200" tip. Recommended model: Mitutoyo 050101 or SPI 98-321-3.	\$7	X	X
4	High speed steel lathe bits with 5% cobalt. 3/8" x 3/8" (Available in the Campus Store.)	\$35 Total	X	X
2	Carbide brazed turning tool. 3/8" Right Hand. (Available in the Campus Store.)	\$17 Total	X	X
1 Ea.	1/4", 3/8", 1/2", and 3/4" high speed steel end mills. 2 or 4 flutes. (1/2" diameter available in the Campus Store.)	\$50 Total	X	X
1 Ea.	#3 and #4 - 60-degree high speed steel center drills. Recommended set: Accusize 0556-5500	\$7 Total	X	X
1	118-degree drill bit set. Size range up to 1/2-inch. Recommended set: Drill America 115-piece HSS set. D/A115J-P-SET.	\$230	X	X
1	8-inch smooth or single cut file with handle. Handle required.	\$10	X	X
1	Combination grit deburring stone. Recommended model: Norton INDIB6.	\$20	X	X
1	2 to 3-pound rubber dead blow hammer.	\$30	X	X
1	Tap guide. Recommended model: Fowler 52-490-100.	\$15	X	X
1	0 to 1/2-inch tap wrench set. Recommended model: General Tools #165.	\$65	X	X
1	Hook style deburring tool. Recommended set: Shaviv 155-29065.	\$15	X	X
1	The Spillmaster spill proof cutting oil cup with acid brushes.	\$15	X	X
1	2-inch paint/chip brush.	\$5		
1	Pocket scriber. Recommended model: General Tools #83 or #88.	\$15	X	X
1	Dykem Layout Fluid - Felt tip applicator only! No brush bottles. Or large chisel point Sharpie marker. Dykem model number: 80200. Sharpie model number: Magnum 44001A.	\$12	X	X
1	Adjustable wrench. 10 to 12-inch. Recommended model: Crescent AT212BK.	\$27	X	X
1 Ea.	Long handle hex key wrench sets. Standard sizes 1/32" to 3/8" and metric sizes 2mm-10mm. Brand recommendation: Eklind, Bondhus, Wiha, and Wera.	\$40 Total	X	
1	Rolling and lockable cabinet style toolbox. (Maximum: 30" wide x 20" deep x 50" tall.)			



Pine Technical & Community College

A MEMBER OF MINNESOTA STATE

900 Fourth Street SE • Pine City, MN 55063

OPTIONAL BUT RECOMMENDED

Qty.	Description	Estimated Cost	Standard Package	Optional Package
1	Magnetic test indicator stand. Recommended model: Noga NF10433.	\$110		X
1	Outside micrometer. 1 to 2-inch range. Vernier reading to 4th decimal place. Recommended model: SPI 17-641-2. Kit that includes all three micrometers: SPI 17-634-7.	\$45		X
1	Outside micrometer. 2 to 3-inch range. Vernier reading to 4th decimal place. Recommended model: SPI 17-642-0. Kit that includes all three micrometers: SPI 17-634-7.	\$45		X
1	Depth micrometer set. 0 to 4-inch range. Recommended set: Fowler 52-225-110-0.	\$120		X
1	Parallel set - 1/2 inch to 1-5/8 inch. Recommended set: Shars 303-7201-P.	\$110		X
1	Combination square set with protractor and vee head.	\$68		
1	12-foot tape measure.	\$15		
1	Hacksaw with bi-metal blade.	\$20		
1	Box of paper towels.	\$10		
1	Basic needle nose pliers.	\$10		
1 Ea.	Standard and metric combination wrench sets.	\$40 Total		
Hill Industrial Package Cost Estimates:			\$1,250	\$1,700

Preferred Vendors

Both tool packages are available from Hill Industrial Tools.

Hill Industrial Tools
3110 Ranchview Lane N.
Plymouth, MN 55447
763-476-5005
sales@hillindustrialtools.com

You are not required to use Hill Industrial Tools, but they are a preferred vendor and will be the easiest way to purchase tools. If you would like to purchase a tool package, contact them and request either a **Standard Package** or **Optional Package** for the Precision Machining Technology program at Pine Technical and Community College. Notice that not all the required or optional tools are in either package and will need to be purchased separately.



Pine Technical & Community College

A MEMBER OF MINNESOTA STATE

900 Fourth Street SE • Pine City, MN 55063

Notes

Some tools and supplies may be available for purchase at the campus store. If you have financial aid funds available, you may use financial aid for these items, provided the purchases are made through the campus store.

If your program requires a specific laptop, you may also use financial aid to purchase it through the campus store. However, laptops do not need to be purchased through the campus store—you may choose to buy from another retailer. If purchasing a laptop elsewhere, it is the student's responsibility to carefully review the required specifications for their specific program to ensure compatibility.

For questions about using financial aid in the campus store, please contact the bookstore staff or your Student Success Advisor.

If you have any questions about this tool list, please contact:

Casey Thronnd - Precision Machining Instructor

casey.thronnd@pine.edu

(320) 629-4522

Darren Lund - Precision Machining CLA

darren.lund.2@pine.edu

Disclaimer:

This tool and supply list is accurate as of the date of printing. However, items and requirements are subject to change without prior notice. For the most up-to-date information, please contact the program faculty directly.

Last date reviewed: April 2025