



Automated Systems Technology Applied Engineering/AST Double Major

Student Tool List

Updated 4.3.2024

#	Tool Name	Description/Suggested	Suggested	Estimated Cost \$
1	Books and software subscription estimate			\$600-1500
2	**Digital Multi Meter	CAT III-600 V or CAT III-1000 V rated. (see note at bottom of page)	Fluke 179 Fluke 87-V	\$350 - \$700
3	Screw Driver Set	Wiha 32092 Slotted And Phillips Insulated Screwdriver Set, 1000 Volt, 6 Piece		\$50
4	Wire Stripper	Wire Stripping Cutter Tool, Strong Gripping Serrated Nose, Double Grip Comfortable Handle Klein Tools 11055		\$20
5	3/8" socket set	SAE and metric		\$20-40
6	Flat wrench set	5/16"-11/16"		\$20-40
7	Allen Wrench Set	SAE and Metric Eklind 22 Piece Metric Ball Hex-L Key Set (13222)		\$30
8	Tool Box or Chest	One that can be secured		\$50-350
9	7" speed square or combination square	WORKPRO Aluminum Alloy Carpenter Square and Zinc-Alloy Square Ruler Set - 7 in. Rafter Layout Tool and 12 in. Combination Square Combo		\$10-25
10	15-25' tape measure			\$10-30
11	Automatic Center Punch			\$5-10
12	Safety Glasses			\$5
12	Laptop Personal Computer *computer is not required for first 6 weeks of fall semester	Recommended - HP ZBook 14u Performance - Intel Core i7-8565U, 32GB RAM, 1TB SSD, Windows 10 or 11 64, Required Virtualization capable or Dell equivalent. Solidworks system requirements https://www.solidworks.com/support/system-requirements		\$1400-2500



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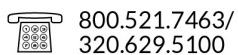
13	2 nd year, Basic Machine Shop	Quantity	Description		\$100-200
		**1	Safety Glasses with side shields OSHA approved, non-prescription		
		1	6" Scale (Steel Rule) in Fractions, 32nds 64ths, 50ths, and 100ths		
		**1	High speed steel with 5% cobalt lathe bits 3/8" x 3/8"		
		**1	3/8" Brazed Turning Tool (Right Hand)		
		**1	1/2" end mill (2 and/or 4 Flute)		
		1	6 or 8 inch caliper - digital or dial type (preferred) NO Plastic Caliper		
		1	Small Brush/Dustpan		
		1	File with handle		
		**1	Wide Sharpie Marker		
		1	Wrench, Hex Key - 1/32" to 3/8"		
		1	Wrench, Hex Key Metric 2-8		
		1	Spray Bottle for coolant		
		1	Tool Box with Lock (Maximum size 36"long x 24"wide x 50")		
14	2 nd year, Intro to Welding	Quantity	Description		\$100- \$200
		1	Welding Jacket – Similar to Black Stallion FN9-30C or FRB9-30C		
		1	John Tillman 48 Mig Gloves		
		1	Safety Glasses		
		1	Welding Helmet Fixed Shade/Auto Darkening – (see instructor for recommendations based on your plans)		
		1	Whelper welding pliers		
		1	Chipping Hammer with Wire brush.		
15	2 nd year	6" Dial Caliper (see instructor for recommendation based on student's plans)			\$40-200
15				Estimated Total	\$2500 - \$4500

Special Notes.

The easiest way to purchase these tools are online. There are a large number of suppliers on different sites where you can price shop. If you already have the listed tools that are similar feel free to use those. They do not need to be new.

*The computer specs listed are a recommendation, If you already have a computer and it has similar specifications we can try it. If you are taking any **CAD courses** the first semester you will need the computer at the beginning of the semester.

** If you already have a multimeter that reads DC volts you can use this for the first 8 weeks. A cheaper multimeter can be used for the first 8 weeks. These meters will be subject to Instructor approval when used for voltages above 24vdc.



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