

AUTOMOTIVE TECHNOLOGY PROGRAM TOOL/EQUIPMENT LIST



Robert Kaiser, Instructor

The following is a list of hand tools the Automotive Department feels will be necessary to enter the Automotive Tech Program. The Department recommends that quality professional tools be purchased and that all tools be marked with some type of identification. Security of these tools will be the responsibility of each individual. The Department or College will assume no responsibility in this area. The College does receive a substantial discount from various vendors for all students that are attending.

The approximate cost ranges from \$3000-\$5000 depending on the source. Check with the Automotive Tech Department if you have any questions.

- ¼” DR. SOCKET SET - 4MM TO 14MM STANDARD & DEEP EXTENSION 1½”, 3”, 4”, 6” 3/8” DR.
- SOCKET SET- 9MM TO 19MM STANDARD DEPTH 9MM TO 19MM DEEP
*FLEXIBLE SOCKET SET 10MM-19MM (SIX POINT PREFERRED BY 12 POINT IS ACCEPTABLE.)
3/8 DR. TO ½ DR. ADAPTOR
3/8 DR. UNIVERSAL JOINT OR WOBBLE JOINT
*FLEXHEAD RATCHET RATCHET
*SPEED HANDLE
EXTENSION 3”, 5”, 10”, *24”
SPARK PLUG SOCKETS 5/8 & 13/16
3/8 DR. BREAKER BAR
- ½” DR. SOCKET SET - 10MM TO 25MM STANDARD 10 MM TO 25MM DEEP
½ DR. TO 3/8 DR. ADAPTOR
½ DR. TO ¾ DR. ADAPTOR
½ DR. UNIVERSAL JOINT OR WOBBLE JOINT
*½ DRIVE IMPACT WOBBLE JOINT RATCHET
EXTENSION 3”, 6”, 12”
½ DR. BREAKER BAR
- COMBINATION WRENCH SET - 5MM TO 24MM
*CROWS FOOT WRENCH SET- METRIC
* FLARE NUT WRENCH SET - 10MM-17MM
- HEX WRENCH SOCKET SET - METRIC – 2MM TO 8MM, 10MM, 12MM
- REGULAR PLIERS
NEEDLE NOSE PLIERS
DIAGONAL CUTTING PLIERS

SLIP JOINT PLIERS
 RETAINING RING PLIERS
 VISE-GRIP PLIERS- SMALL, MEDIUM, & LARGE- FLAT JAWS
 HOSE CLAMP PLIERS
 WIRE STRIPPERS
 SCREWDRIVERS- (COMMON) STUBBY, 4", 6", 8", 10"
 (PHILLIPS) STUBBY #2
 6" #1,2
 10" #2
 12" #2
 PUNCHES - 1/8", 3/16", 1/4", 5/16", 3/8"
 CENTER PUNCH - 3/8"
 COLD CHISELS - 5/16", 3/8", 5/8", 3/4", 7/8"
 STARTER PUNCHES - 3/16", 1/4", 5/16"
 CAPE CHISELS - 1/4", 5/16", 3/8"
 CHISEL HOLDER
 BALL PEEN HAMMER- 16OZ.
 BALL PEEN HAMMER- 32OZ.
 PLASTIC TIP HAMMER- 16OZ.
 DEAD BLOW/RUBBER HAMMER
 HACKSAW
 SCRAPER- 1" CARBON, 1" GASKET
 INSPECTION MIRROR
 MAGNETIC PICKUP TOOL
 CLAW PICKUP TOOL
 SAFETY GLASSES (MEETING OSHA REQUIREMENTS)
 EAR PROTECTION
 LED SHOP LIGHT OR FLASH LIGHT
 FUSE PULLER
 1/4" AND 3/8" DR. TORX DRIVER SET (CAN BE TAMPER PROOF SET)
 (SHOULD INCLUDE T-8, T-10, T-15, T-20, T-25, T-27, T-30, T-40, T-50, T-55, T-60)
 *1/4" AND 3/8" DR. INVERTED TORX DRIVER SET
 (SHOULD INCLUDE E-4, E-5, E-6, E-7, E-8, E-10, E-12, E-14, E-16, E-18)

 ADJUSTABLE WRENCH - 12"
 PRYBAR - 16"
 PRYBAR - 24"
 FEELER GAUGES - .002 TO .040 TO .006MM TO .070MM
 SPARK PLUG FEELER GAUGE (GAP TOOL)
 BATTERY SERVICE KIT:
 (SHOULD INCLUDE BATTERY NUT PLIERS, BATTERY TERMINAL
 PULLER, BATTERY POST CLEANER)
 WIRE BRUSH
 1/2" DR. METRIC SHALLOW AND DEEP IMPACT SOCKET SET
 BLOW GUN (OSHA APPROVED)
 3/8" DRIVE TORQUE WRENCH (10-250 LB. IN) **GOOD QUALITY FOR ACCURACY**
 3/8" DRIVE TORQUE WRENCH (5- 75 LB. FT.) **GOOD QUALITY FOR ACCURACY**
 1/2" DRIVE TORQUE WRENCH (50-250 LB. FT.) **GOOD QUALITY FOR ACCURACY**
 * 1/4" DRIVE AIR RATCHET (30 FT LBS INGERSOLL RAND 1105MAX-D2 OR EQUIVALENT)
 *3/8" DRIVE AIR RATCHET (65 FT LBS INGERSOLL RAND 1207MAX-D3 OR EQUIVALENT)
 1/2" DRIVE AIR IMPACT (INGERSOLL RAND 231 SERIES OR EQUIVALENT)

TUBING CUTTER (LARGE AND MINI)

TUBING FLARING SET WITH LINE BENDER (ISO AND *BUBBLE)

FILES 10" COARSE, 6" FINE, HALF ROUND 12", ROUND 12"

DRILL INDEX UP TO MINIMUM 1/64 TO 1/2"

VALVE TIRE CORE REMOVER

12' TAPE MEASURE- STANDARD AND METRIC

TIRE PRESSURE GAUGE

TIRE TREAD DEPTH GAUGE

TYPE A AIR TOOL FITTING FOR EVERY AIR TOOL ORDERED

CAT III 1,000 VOLT DIGITAL MULTIMETER WITH CAT III LEADS (FLUKE 87, FLUKE 88, PDI DM-930, BOSCH MMD 540H, SOUTHWIRE 11060S, OR EQUIVALENT)

TOOL BOX ROLL-A-WAY CHEST (NO LARGER THAN 52")

(WITH CAPACITY TO SUPPORT ALL TOOLS AND CAN BE EASILY
MOVED TO DIFFERENT LOCATIONS)

UNIFORMS- ORDERED THROUGH CUSHMAN'S EMBROIDERY (LS524-SHORT SLEEVE OR LL524-LONG SLEEVE WITH NMCC AUTOMOTIVE TECHNOLOGY LOGO ON LEFT AND NAME ON RIGHT. MINIMUM TWO SHIRTS. **Note:** Uniforms for students will be ordered during the first week of classes by the instructor.

ITEMS MARKED WITH * ARE RECOMMENDED BUT NOT REQUIRED

Laptop Computer Minimum System Requirements:

Estimated costs of the laptop computer will range from \$500-\$1,000 depending on the model and features preferred by the student.

Software:

- Licensed Windows 10 or 11 operating system
- Microsoft Office 365 or 2019 Professional (Word, Excel, Access, & PowerPoint)
 - Available for free download through Office 365 account (Matriculating students only)
- Licensed and up-to-date antivirus

Hardware:

Minimum Requirements	Recommended Requirements
Intel i3, Ryzen3 processor or faster	Intel i7 8 th Generation processor or faster
4GB or RAM	8GB or RAM
256GB Hard Drive	500GB SSD
Wireless networking	Wireless networking
Battery with at least 1.5 hours of runtime	Battery with at least 3.0+ hours of runtime
Web Camera, Mic, and Speakers (Video Conferencing)	Web Camera, Mic, and Speakers (Video Conferencing)

Optional:

- Wireless Mouse
- USB Flash Drive (for moving files)
- DVD Drive

We do not recommend:

- **Chrome books**
- **Mac or iPads**
- **Windows S mode laptops**