Required Tools

A tool box and specific tools are required for Morrisville Auto Students (see list below)

Auto Body students should see the additional list of specific tools that are required for the Body Program.

Students will need (1) pair of safety glasses (clear lenses) to be worn at all times during labs. This is a New York state regulation which will be enforced starting on the first day of school.

"Dickies®" style work pants, a work shirt of dark color and leather work boots or shoes (no nylon or mesh) are required for all labs for student safety and to convey a professional appearance.

All required hand tools are recommended to be of professional quality with a lifetime guarantee when available.

- 1 Tool Box (roll cabinet w/optional top box) Maximum 54" Wide
 - o Long bike lock (Can be purchased at the Auto Building Parts Department)
- Socket Sets: (6 point sockets are recommended) SHALLOW & DEEP RECOMENDED
 - o 1/4" drive (Suggested 5mm to 13mm suggested range)
 - o 3/8" drive (Suggested 8mm to 19mm suggested range)
 - o 3/8" drive (Suggested 1/4" to 7/8" suggested range)
 - o 1/2" drive (Suggested 10mm to 24mm suggested range)
 - o 1/2" drive deep impact sockets (10-19mm suggested range)
 - o 5/8" spark plug socket
 - o Torx socket set (suggested 8T to 55T suggested range)
- 1/2" drive impact gun (can be pneumatic, electric, or cordless)
 Our automotive labs use type "B" quick connect air-line couplers
- Socket Drivers:
 - o Ratchets: (1/4", 3/8" and 1/2" drive)
 - Breaker Bars: (3/8" and 1/2" drive)
 - Extensions: 3", 6" and 10" (1/4", 3/8" & 1/2" drive)
 - o Torque wrench 1/2" drive (Suggested range of around 50-250 ft. lbs.)
 - o Torque wrench 3/8" drive (Suggested range of around 10-100 ft. lbs.)
 - o $\,$ Torque wrench 1/4" drive (Suggested range of up to 200 in lbs.)
- Socket Adapters:
 - o 1/2"M to 3/8"F, 3/8"M to 1/2"F, 3/8"M to 1/4"F, 1/4"M to 3/8"F
- Tire Chuck for inflating tires
- Tire pressure gauge (Pencil type suggested)
- OSHA approved blowgun. (Our labs use type "B" guick connect couplers)
- 0-1" Micrometer and a 0-6" Dial or Digital Caliper

A measuring tool kit is available from the Automotive Building Parts Desk that includes the precision measuring tools listed above

- Wrenches:
 - o Combination Wrenches: (7mm to 21mm suggested range)
 - o Flare Nut Wrenches: (7mm to 19mm suggested range)
 - o Hex Wrenches (Allen): 1.25mm to 10mm (socket type recommended)
 - o Battery terminal wrench 5/16 ratcheting box
- Screwdrivers: (These suggested screwdrivers typically come in a set)
 - o Phillips: #1 and #2
 - o Flat Blade: 1/8" x 4", 1/4" x 6", 5/16" x 8", 3/8" x 12", 5/16" x 1-3/4"
- Punch and Chisel set including a center punch

- Pry bar or pry bar set (18" suggested but other sizes are acceptable) Pliers: o Common Slip-Joint o Needle Nose o Locking 7R Vise-Grip® style Needle nose o Diagonal Cutters o Water pump o Snap Ring Internal External o Wire Strippers Hammers: o 1 lb. Ball Peen o 2 lb. Ball Peen o Soft Face Battery Terminal Cleaner/Brush • Oil Filter Wrenches (One small one and a large version recommended) Gasket Scraper 1" Putty Knife Leather Welding Gloves 10' or 12' Tape Measure (metric/fractional) Feeler Gauge Set Set of ear plugs or headphone style ear protection Snap On Digital test meter EEDM504DMSC (Snap On Meter required for Certification Program) 12 volt test light (Incandescent or non-LED recommended) Vacuum T's 3/16" Work Light (Fluorescent or Led cordless/rechargeable recommended)
- Spark Tester (AC #ST125)*

Spark Plug Gap Gauge*

- Oxygen Sensor Socket*
- Respirator (cartridge type) for paint fumes*

Injector Test light kit (Noid lights) (3 lights, GM, Ford, Chrysler)*

I tems marked with * are required for third semester students only

Auto Body required tools list:

These tools are in addition to the above required Automotive Technology tool list.

- o Body Hammer, Door skin
- o Body Hammer, Spot Pick, Long
- o Body Hammer, Cross Peen, Short Curve
- o Sheet metal Shears, straight cut
- o Dolly, Toe, Steel
- o Dolly, Heel, Steel
- o Dolly, Heel, Rubber Coated
- o Sanding Block, 5" x 2 3/4"
- o Door Handle removal tool
- o Door Trim Pad Removal Tools
- o Helmet, Welding, Auto-Darkening
- o Gloves, Technician's, Nitrile (box of 100)
- o "Mechanix" type work gloves for handling sheet metal
- Tyvek painting coveralls**
- D/A Sander**
- o 3M HookitTM pad P/N 05775**
- o 3MTM HookitTM Soft Interface Pad P/N 05771**

Items marked with an ** are required for second semester Auto Body students

The following tools are recommended to be purchased as some of the tools that you might need <u>after</u> you graduate

- Standard socket Sets: (6 point sockets are recommended) SHALLOW & DEEP
 - o 1/4" drive, 7/32" to1/2"
 - o 3/8" drive, 3/8" to 13/16"
 - o 1/2" drive, 3/8" to 1-1/4
 - o External Torx socket sets (at least shallow, deep optional)
- Impact Socket Sets: (6 point sockets are recommended) SHALLOW & DEEP
 - o 1/2" drive
 - 3/8" to 1-1/4
 - 10mm to 24mm
- Wrenches:
 - o Combination Wrenches: (5/16" to 7/8" suggested range)
 - o Flare Nut Wrenches: (3/8" to 3/4"
 - o Hex Wrenches (Allen): 5/64" to 3/8" (socket type recommended)
- Drill Bit Set 1/16" to 1/2"
- Drill (cordless or Electric)
- 3/8" drive air ratchet
- Die grinder and bits
- Wiring terminal extraction kit
- Terminal test lead kit
- 1/4", 3/8" & 1/2" universal flex joint
- Door panel removal tools

We have made special arrangements for the purchase of the required tools with Snap-On and the local NAPA store.

Listed below is the contact information for each vendor:

Snap-On Industrial
 Gary Condlin
 315-307-0286
 gary.l.condlin@snapon.com



Auto Parts of Morrisville (NAPA)
 49 East Main St.
 Morrisville, NY 13408
 315-684-9335



A laptop computer will be required for all third year students.

Additional tools are required for some advanced courses, including Auto Body II, Fuels, Electronics II and III, Transmissions and Drivability.

Limited tool storage is provided in the Auto Buildings. Students are encouraged to insure their tools, as the Auto Tech Department and Morrisville State College are not responsible for missing tools.

All toolboxes must have student's name conspicuously printed on the box, and it's suggested that all tools should be engraved for identification