

Plumbing & Heating Required Tool/Equipment

Loren Gordon, Instructor 2024/2025



FRESHMAN, PLUMBING CLASS (tools are used on the first week of classes)

- 1) Tool Box (lockable preferred) (approximately 9”X9”X18” or larger) (pack-outs are not recommended)
- 2) Standard and Phillips screwdriver set
- 3) 1/4”, 3/8” & 5/16” nut drivers or a complete nut driver set, hollow shaft
- 4) SAE 5/16”-3/4” & Metric 8mm-17mm open-end wrenches
- 5) 14” pipe wrench (aluminum preferred)
- 6) 18” pipe wrench (aluminum preferred)
- 7) 9” (water pump) pliers or channel lock 2 pairs are preferred
- 8) Flaring Tool: Yellow Jacket, or another professional grade flaring tool suggested.
- 9) Tubing cutter, RIDGID #15, or equivalent professional grade cutting tool.
- 10) Mini-tubing cutter RIDGID #101, or equivalent professional grade cutting tool.
- 11) 9” torpedo level
- 12) 1/2” & 3/4” fitting brushes (2 each or as needed) (copper cleaning brushes) – not the one-piece units
- 13) 1 lb. roll lead free solder – More solder may be required as semesters proceed. Silverbrite preferred
- 14) 16 oz. hammer, rip or claw
- 15) *Steel toe boots -- ANSI Z41 certified
- 16) Mechanics gloves (optional)
- 17) Propane or Mapp gas torch kit to include 1lb. cylinder of gas. More gas may be required as semesters proceed (self-igniter suggested) – **medium tip only!! Bernzomatic TS 4000 preferred**
- 18) PEX Tubing cutter (must be able to cut 1/2” & 3/4” tubing)
- 19) 25’ tape measure
- 20) Torx screw driver set
- 21) ***Z-87** safety eye wear, Clear Lenses ONLY!
- 22) 6” & 8” Adjustable wrenches 1 each size (Klein D507 are suggested)
- 23) Wire brush or wire wheel brush for a drill 3” diameter + -
- 24) 2 rolls of Teflon Tape (Blue Monster preferred) 1/2” thick
- 25) Tire Pressure gauge
- 26) Bits for a drill: #2 Philips, T-15, T-20, T-25, 1/4” & 5/16” nut drivers (as needed)
- 27) Texas Instruments Calculator: **TI-30X IIS** preferred
- 28) Laptop Computer (See attached sheet for requirements)

SENIOR, HEATING CLASS, INCLUDE WITH ABOVE ITEMS FOR 2ND YEAR

- 1) 9” Linemen pliers (Klein D201-9NE)
- 2) Wire stripper (Klein 11055 Standard wire gauges 14, 12, 10 gauges)
- 3) Allen wrench set SAE and Metric
- 4) Needle-nose pliers (Klein D203-6)
- 5) Terminal Crimper (Klein 1005 are highly suggested)
- 6) Multi meter (Must be a Type III capable of reading capacitance)
- 7) Box of 100 latex gloves – optional
- 8) Diagonal cutting pliers (Klein D243-8)
- 9) Control screw driver

**Tools with an Asterisk “*” required to be specific BRAND and MODEL #

Students will be using tools on the first week of class.

Please note: If tools are to be purchased through the business office, a handling fee may be added. If additional information is needed, please call me at 768-2745 or e-mail me at nlgordon@nmcc.edu.

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**