

Electrical Construction Tool List

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The Electrical Construction and Maintenance Program at NMCC offers training in a variety of basic electricity, basic electronics, motor control, and advanced electrical wiring courses. As a result, certain tools will be used during the senior year but not required for the freshman year. The following list should help incoming students identify which tools will be required for the first year. Many of the tools on the senior year list will not be required until that year. Only those tools identified for the freshman year will need to be purchased prior to the fall semester start-up or during the first week of classes.

NOTE: Apple products will not work with any of our electrical classes.

Freshman Tools

Small electronics Tool Kit, Elenco digital multimeter part number M1008K, available at the NMCC Bookstore
Digital Multimeter, CAT 3 from Senior year (*MUST measure Milliamps)

Basic Wiring Tools (ELE 112)

- Screwdrivers, 3/16 and ¼ inch straight blade
- #2 phillips driver
- Linesman pliers, 9-inch
- Wirestrippers, T-Strippers recommended
- Electrician folding knife
- Long-nose pliers
- Tape measure
- Hammer
- Sharpies (permanent fine point marker)
- Tool carrier of your choice
- 1 and 2 pole breaker lockouts, with padlock and tags
- Safety eyewear, ANSI approved
- Safety footwear, ANSI approved hard toe

Motors & Controls (ELS 124 & ELS 125) in addition to all tools listed for (ELE 112)

- Unlined leather gloves, electrician
- Diagonal cutting pliers, 8 inch
- Pump pliers, 9" or 10"
- Nut driver set 3/16 thru ½ inch
- Adjustable wrench, 6 inch handle or larger
- Crimping tool, insulated and uninsulated terminals

Senior Tool List on page 2

The following is the tool list for Seniors (ELE 212, ELE 223)

Screwdrivers

3/16, 1/4, 5/16, 3/8, Straight blade

#2 Phillips

#1 and #2 Robertson tip (square tip)

Allen wrenches, SAE, torx and metric

Adjustable wrench, 6 inch or larger handle

Screw starter

Electricians' tri-tap, 6/32, 8/32, 10/32 threads

Hacksaw and blades for PVC (18-24 teeth) and steel (28-32 teeth)

Magnetic protractor Klein 1895, or equal

1/2 inch Knockout Punch for 1/2 inch conduit

1/2 EMT bender

Cordless drill (or screwdriver) and bit set which includes 1/4 and 5/16 hex bits

1/2 inch step drill bit (unbit), 1/8 to 3/4 is OK

Drill bit set

Torpedo level, magnet

Jab saw

Digital Multimeter CAT 3 or greater and lead set

Tool carrier of your choice

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.

We do not recommend:

- **Chromebooks**
- **Mac or iPads (The required course software will not operate with this operating system)**
- **Windows S mode laptops**

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
500GB Hard Drive	500GB SSD
Wireless networking	Wireless networking
Battery with at least 1.5 hours of runtime with AC Power Supply	Battery with at least 3.0+ hours of Runtime with AC Power Supply
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