



## Electrical Construction and Control

### Tools Required First Day of Classes

Estimated Cost: \$2,000-\$3,000

\*\*\*informational note \*\*\*\* Students must have all the tools on the required list. Students do not have to buy the items on the optional list, but they are tools that will help in class and will likely need for their future employer. For most all the items listed above students can either purchase item in parentheses or a different brand of tool that matches the description. The items in parenthesis are all good choices but are also there to use a reference to compare if you're shopping around between brands. Some other great quality electrical tool manufactures are Klein, Greenlee, Southwire, and Milwaukee. Most electrical employers require employees to provide their own hand tools (all the tools on the list above) and because of this we encourage students to think about the long term financial investment of these tools especially the daily used tools such as wire cutters, wire strippers, pliers, and especially the main screwdrivers set and Allen wrench's and purchase them from a reputable brand such as those listed above. *(The striped out \$3 screwdriver in the back of the tool drawer is very hard on lab equipment. Please have tools that are in good working condition)* For the drill and impact we ask that you get a jobsite grade tool such as Milwaukee, DeWalt, or other favorite brand. (The electrical program uses Milwaukee for other tools and does have a charger that is occasionally available). For your electrical meters you must buy the FLUKE 117 meter and your choice of the Fluke T6-600 (or T6-1000 that costs a little more) or Fluke 324. On other tools such as the torch screwdriver do not spend a lot of money - a no name one is fine. Tools can be purchased online, at a store, at electrical supply houses (Norfolk has 3E, Echo, and Rensenhouse) or be used ones (that are in good shape and work) brought from home or bought online. There are lockers available to students to store tools and books in overnight. If you chose to use the lockers, you must purchase another keyed or combination lock.

Quantity	Description
Program Required Tools	
1	Tool Backpack or Tool Bag (Example: Milwaukee 48-22-8201 or 48-22-8300)
1	Tool Pouch (Example: Milwaukee 48-22-8112)
1	9" side cutting pliers (Lineman pliers) (Klein D213-9NE)
1	8" diagonal cutting pliers (Klein 1005)
1	8" Long needle nose pliers (Klein D203-8)
1	7" pump pliers <channel locks> (Knipex 870118 or Klein D505-10)
1	10" pump pliers <channel locks> (Knipex 870125 or Klein D505-7)
1	Wire stripper and cutter for 8-16 AWG solid wire & 10-18 AWG stranded wire (Klein 11055)
1	Greenlee NM cable stripper 1960
1	Wire and cable stripper (Klein Tools K1412)
1	Folding cable skinning Utility knife (Klein 44218)
1	Regular utility knife (Milwaukee Knife 48 22-1505)
1	12" hacksaw (Klein 702-12)

**Main Screwdriver set including:  
(Klein 85076 doesn't include square)**

- 1 Phillips #1x3"
- 1 Phillips #2x4"
- 1 Phillips #2x6"
- 1 Slotted 1/4"x4"
- 1 Slotted 3/16" X 6"
- 1 Slotted 5/6" x 6"
- 1 Square #1
- 1 Square #2

**Precision screwdriver set including:  
(Klein 32584INSR)**

- 1 Phillips #0 1 2-1/2" precision screwdriver
- 1 Phillips #00 – 2" precision screwdriver
- 1 Slotted 1/16" – 2-1/2" precision screwdriver
- 1 Slotted 1/8" – 3-1/2" slotted precision screwdriver
- 1 Slotted 3/32 – 2-1/2" precision screwdriver
- 1 Slotted 5/32" – 4" precision screwdriver

- 1 10" Adjustable wrench (Klein D507-10)
- 1 9 piece folding SAE Allen hex key large 3/8 inch (Klein 70550)
- 1 25' Tape measure
- 1 Torpedo level
- 1 18 oz. Electrician's hammer (Klein 807-18)
- 1 High dexterity gloves cut resistant gloves (Klein 60582)
- 1 Conduit reamer (Klein 85191)
- 1 Triple-tap tool (Klein 627-20)
- 1 Lockout hasp (Klein 45200) and 1 lockout tagout padlock
- 1 Jab saw (Klein 725)
- 1 Non-contact Voltage Detector (Santronics 3115)
- Fluke 324 or Fluke t6-600 (or Fluke t6-1000) Clamp or Fork meter
- 1 **(ONLY OPTION DO NOT SUBSTITUTE)**
- 1 Fluke 117 Multi-meter **(ONLY OPTION DO NOT SUBSTITUTE)**
- 1 GFCI Outlet tester (Klein RT210)
- 1 3M wire Marker Tape Dispenser (3M STD-0-9)
- 1 Hard hat Class E Rating (color doesn't matter) (Klein 60107(light not required))
- 1 Clear safety glasses Z87 approved
- 1 Leather electrical hazard work-boots **(EH) rated**
- 1 Torque screwdriver
- 1 Bit Tip Impact driver kit (Milwaukee 48-32-4010)
- 1 6" Nut driver set can use with drill/impact (Klein 32950)
- 1 Cordless 1/4" Impact / 1/2" Drill Kit w/ 2 batteries and charger

**Optional Tools**  
**(Not Required by Program)**

- 1 Ratcheting Cable Cutting Pliers
- 1 Electricians Step Drill bit (Klein KTSB15)
- 1 5 pc Gearwrench Ratcheting Combination Wrench set 3/8"-9/16"
- 1 7/8 Auger Drill Bit
- 1 10 in 1, or 13 in 1 screwdriver set (Klein 32557)
- 1 Insulated screwdriver (Klein 32293)