**REQUIRED TOOLS AND EQUIPMENT TO BE PURCHASED *(please put your name on your tools!)***

**Classroom Supplies (required for all classes)**

* Text books :
	+ Welding Skills Fifth Edition ISBN : 978-0-8269-3084-2
	+ Welding Symbols Laminated Quick Card bookstore
* 3 ring binder and paper for class notes, papers and homework
* Small spiral bound note pad for welding notes
* Sharpie or paint marker

**General Safety Equipment (required for all classes)**

* Safety Glasses-clear no colored glasses
* Work gloves to match process being used.
* Leather Safety Shoes/boots-prefer steel toe
* 100% cotton longs sleeve shirt
* 100% cotton long pants
* Hearing Protection (No earbuds)

**General Shop Equipment (required for all classes)**

* Combination Square
* Tape Measure, metric/standard
* Center punch
* Marking scribe
* Soap stone and holder
* Wire Brush
* Flash light
* Respirator 3M with welding cartridges
* 4.5 inch Grinder/ grinding wheels, cut-off discs, brush wheel
* Vise grip pliers
* 10” 0r 12” adjustable (Crescent type) wrench
* 2 LB. ball peen hammer

**WELD 101 OFW Equipment**:

* # 5 shaded welding face shield.
* Striker
* Tip Cleaner for torch tips
* # 0 welding tip for a C-100 victor torch

**WELD 102 SMAW Equipment**

* Welding Helmet - prefer auto darkening. Needed shades for manual helmet are 11, and 12. **Must be ANSI Z.87 appoved!**
* Welding Slag Hammer
* Welders skull cap
* Leather coat **no fire-retardant cloth coats.**

**WELD 103, 104, 204 GMAW/FCAW Equipment**

* MIG Pliers/Welpers
* Stainless steel brush
* Tweco Nozzle part # HD24L-62
* Tweco Nozzle Part # HD24-50
* Tweco Contact Tips Part # 16S-45 and # 16S-35
* Backhand Pads
* Thick Leather gloves

**WELD 105 GTAW Equipment-**3 series accessories for 200 amp CK Worldwide torch (Central Welding Has a kit for LWTech Students)

* 1/16th", 3/32", and 1/8” collet body and collets
* long length end cap
* Ceramic cups #4, #5, #6, #7, and #8.
* Torch Gasket
* Tungsten sizes 1/16th”, 3/32", and 1/8 (Ceriated, Lanthanated recommended)
* Stainless steel brushes in various sizes
* Thin leather gloves
* Flapper Wheels for cleaning parts

**WELD 205 GTAW Pipe Equipment -** 3 series accessories for CK20 torch

* 3/32", and 1/8” collet body and collets (gas lens)
* multiple lengths end caps
* Ceramic cups or Pyrex cups
* Torch Gasket
* Tungsten 3/32", and 1/8
* Dental pick or similar pointed probe
* Thick leather gloves (Stick gloves)
* Thin leather gloves (TIG gloves or gardening gloves)
* Knee pads or gardening pad
* Back hand pad
* TIG finger(s)
* Larger light source (Shop light or large flashlight)
* Extra front lenses for welding hood
* Cut off wheels (Pipeliner wheels ok too)