

# ISU Automotive Technology Tools List

## 1st Semester REQUIRED Tools:

### Rolling Toolbox

- Lockable with minimum 10,000 cubic inch capacity storage (No Wider Than 46")

### 3/8" Drive

- 1 Ratchet
- 3 Extensions- 1", 3", 6" & 12"
- 1 Universal Joint adapter (preferably Impact swivel type)
- 1 Socket Set-3/8" to 7/8" (6 point)
- 1 Deep Socket Set-3/8" to 7/8" (6 point)
- 1 Socket Set-6mm to 19mm (6 point)
- 1 Deep Socket Set-6mm to 19mm (6 point)
- 2 Spark Plug Sockets-5/8" & 13/16"
- 1 Set of Torx Bit Sockets
- 2 Adapters-3/8" to 1/2" & 3/8" to 1/4"

### 1/2" Drive

- 1 Ratchet
- 1 Breaker Bar-18" minimum
- 2 Extensions-3", 6" & 12"
- 1 Universal Joint adapter (preferably Impact swivel type)
- 1 Socket Set-7/16" to 1 1/4" (6 point)
- 1 Socket Set-10mm to 21mm (6 point)
- 1 Adapter-1/2" to 3/8"

### Wrenches

- 1 Combination Wrench Set-1/4" to 1"
- 1 Combination Wrench Set-8mm to 19mm
- 1 Hex (Allen) Bit Sockets-Standard
- 1 Hex (Allen) Bit Sockets -Metric
- 1 Oil Filter Wrench-Small & Large

### Screwdrivers

- 1 Screwdriver Set-Flat Tip
- 1 Screwdriver Set-Phillips

### Pliers

- 1 Slip Joint-7" to 8"
- 1 Side Cutter-7" to 8"
- 1 Channel Lock-12"
- 1 Needle Nose
- 1 Vise Grips-8" to 10"
- 1 Wire Stripper/Crimper

### Miscellaneous Tools

- 1 Ball Peen Hammer (32oz preferred)
- 1 Safety Glasses
- 1 Tire Pressure Gauge
- 1 Tire Air Chuck
- 1 Pry Bar Set
- 1 Punch & Chisel Set
- 1 Brass Drift-6"
- 1 Mill File & Handle-10"
- 1 Hacksaw
- 1 Gasket Scraper
- 1 Pocket Flashlight (mag light)
- 1 Inspection Mirror
- 1 Magnetic Pick-up Tool
- 1 Measuring Tape
- 1 Blow Gun
- 1 Test Light-12 Volt
- Digital Voltmeter (Prefer Fluke 87 or higher)

## **2nd Semester REQUIRED Tools:**

### **1/4" Drive**

- 1 Ratchet
- 2 Extensions-2" & 4"
- 1 Universal Joint
- 1 Socket Set-3/16" to 1/2"
- 1 Socket Set-5mm to 13mm
- 1 Adapter-1/4" to 3/8"

### **Miscellaneous Tools**

- 1/2" Pneumatic Impact gun
- 1/2" Drive Impact Sockets & Extensions
- 1/2" Torque wrench
- 1 Flare Nut Wrench Set-Standard
- 1 Flare Nut Wrench Set-Metric

- 1 Crescent Wrench-10"
- 1 Snap Ring-Internal & External
- 1 Lock Ring Pliers
- 1 Plastic Tip Hammer
- 1 Rubber Mallet
- 1 Ignition Spark Tester
- 1 Set of Feeler Gauges
- 1 Brake Spring Pliers
- 1 Brake Hold Down Spring Tool
- 1 Battery Post Cleaner (brush type)
- 1 Wire Brush
- 1 Spark Plug Gapping Tool
- 1 Pick Set-4 Piece
- Metal Slide Ruler

## **Recommended Tools (Not Required):**

- 3/8" Air Ratchet
- Ratcheting End Wrench Set
- Combination Wrenches 20mm to 24mm
- 1 Long Heavy Duty Pry Bar
- Finger Pick Up Tool
- Large Dead Blow Hammer
- Valve Core Removal Tool
- Impact Swivel (Wobbly) Sockets
- Files-Round, & Half Round
- Hose Clamp Pliers
- Oxygen Sensor Socket
- Oil Pressure Sensor Socket
- 3/8" Cordless impact gun
- 1/2" Cordless impact gun