

## Automotive Technician Tool List 2023-24

*All costs are approximate and are subject to change.*

### Required Supplies (Needed for first day of class) - \$435

- |   |         |
|---|---------|
| • Safety Boots (CSA Approved, Steel Toe, Green Symbol)  | \$160   |
| • Coveralls or smock  | \$100   |
| • Safety Glasses (must be clear) (CSA Approved with Safety Cords)   | \$20    |
| • Hearing Protection (as required in shops)   | \$15    |
| • Classroom supplies (binders, paper, pens, pencils)  | \$50    |
| • Sharp EL-531XT Calculator   | \$20    |
| • Duo Mobile APP Download   | FREE    |
| • OR YubiKey (see below)  | \$70.00 |
| • <b><u>Must have access to a computer/laptop</u></b> , complete with a camera, microphone, and Microsoft Office.<br><i>Assiniboine Community College can provide students with a link to download Microsoft Office 365 at no charge.</i> |         |
| • <b><u>Must have access to the internet</u></b>  |         |

#### Multifactor Authentication (MFA)

Assiniboine Community College requires all students and staff to use an additional method to verify identity when accessing college systems, this is known as [multifactor authentication \(MFA\)](#). MFA adds an extra layer of security to protect you, your personal information and college systems from unauthorized access and phishing attacks.

In order to access any program on the College's network, including MyACC, you are required to:

1. Download the free DUO Mobile app on your own mobile device and follow the enrollment steps outlined in the video on the MFA webpage, visit [assiniboine.net/mfa](https://assiniboine.net/mfa). *Note: You will only do this when you first attempt to access our college system. Do not delete the app after, you will need it for every time you login to Assiniboine services.*

**OR**

2. Purchase a YubiKey, costs vary by type and are available at the Bookstore. It is important to know the type required for your device.

For more information on multifactor authentication visit, [assiniboine.net/mfa](https://assiniboine.net/mfa).

### Required Tools - \$3,500

Automotive Technician students can expect an approximate cost of \$3,500 for tools and tool box. This figure and the tools purchased are based on personal preference. Advice on necessary tool purchases can be obtained from the instructor of the program.

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|---|---|
| • Roll tool chest (preferred bottom)          | • Combination wrench set in both SAE and metric   |
| • LED trouble light (preferably cordless)     | • Pliers set - needle nose, diagonal & slip joint |
| • ¼" socket set in both SAE and Metric        | • Inverted Torx socket set                        |
| • ⅜" socket set in both SAE and Metric        | • Wire crimper pliers                             |
| • ½" socket set in both SAE and Metric impact |   |

- Screwdriver set including standard slotted Phillips
- Screwdriver set including Torx and Robertson
- Ballpeen hammer 1½ or 2 lb
- Dead blow hammer 2 lb
- Suitable punch and chisel set including brass drift
- O-ring pick set
- Test light
- Allen Wrench &/or Hex key set in both SAE and metric
- Suitable scraper
- Pry bar set
- Torx Socket set
- Digital Multi-meter (*See recommendations below*)
- 6" curved jaw "vice grip" locking pliers
- 10" curved jaw "vice grip" locking pliers
- ¾" drive torque wrench
- ½" drive torque wrench
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### **Digital Multi-meter Recommendations:**

#### **Basic Functions:**

- DC Volts, 0 - 1000 volts
  - resolution: 1 mV / 0.001 Volt
- AC Volts, 0 - 750 volts
  - resolution: 1 mV / 0.001 Volt
- Resistance, 0 - 20 MΩ
  - resolution: 0.1 Ω
- DC Amps, 0 - 10 amps
  - resolution: 1 mA / 0.001 Amp
- Diode test
  - forward bias resolution: 1 mV / .001 Volt

#### **Highly Recommended Features:**

- "Automotive" features
  - Dwell measurement
  - RPM measurement
- Autoranging
- Fused current shunts
- Removable test leads
  - to allow custom lead hook-ups
- Interchangeable Alligator Clips & Test Prods
- Audible continuity test
- Temperature measurement
- Capacitance measurement
- Transistor check
- Relative mode
- Auto off
  
- Frequency measurement
- Duty cycle
- Min/Max/Avg

- Data hold

**Luxury Features:**

- Back-lit display
- Pulse width measurement (mS Pulse Width)
- Analog bar graph
- RS-232C Computer interface and software
- Amp clamp

**Total cost of supplies and tools = \$3,935 for the Automotive Technician program.**