

Heavy Equipment Technician Tool List 2022-23

All costs are approximate and are subject to change.

Required Supplies (Needed for first day of class) - \$615

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| • Safety Boots (CSA Approved, Green Triangle) | \$160 |
| • Coveralls | \$100 |
| • Welding Gloves | \$25 |
| • Welding Helmet | \$250 |
| • Safety Glasses (CSA Approved, must be clear lenses – complies with CAN/CSA.794.3) | \$20 |
| • Hearing protection (as required in the shop) | \$15 |
| • Classroom supplies (binders, paper, pens, pencils etc.) | \$50 |
| • Duo Mobile APP Download | FREE |
| • OR YubiKey (see below) | \$70.00 |
| • Sharp EL-531XT Calculator | \$20 |
| • <u>Must have access to a computer/laptop</u> complete with a camera, microphone, and Microsoft Office.
<i>Assiniboine Community College can provide students with a link to download Microsoft Office 365 at no charge.</i> | |
| • <u>Must have access to the Internet</u> | |

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. *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.

Required Tools - \$2,700

Approximate cost of the tools is \$2,700. Prices may vary depending on where tools are purchased. Students are encouraged to wait to speak with instructors prior to purchasing tools.

Notes: When choosing metric wrench or socket sets, we recommend sets that include 1 mm graduations throughout the set. Some manufacturers omit specific sizes that are required for certain applications.

Manufacturers offer many options like SAE socket only sets, metric socket only sets and also complete socket sets that include both SAE and metric sockets in the same set. These complete sets may include ratchets, extensions and swivels.

Your tools should be reasonably similar to those described below.

Description	Reference: #
Roll cabinet(recommend big wheels). No top box (to maintain sightlines for shop safety)	1.
Socket set - $\frac{3}{8}$ " drive, SAE to include: 6-point shallow sockets: $\frac{1}{4}$ " – $\frac{7}{8}$ " (11 pieces), 6-point deep sockets: $\frac{3}{8}$ " - $\frac{7}{8}$ " (9 pieces), ratchet, 3" and 6" extensions and universal joint	2.
Socket set $\frac{1}{2}$ " drive, SAE to include: 12-point shallow sockets: $\frac{3}{8}$ " – $1\frac{1}{4}$ " (14 pieces), ratchet, flex handle, 5" and 10" extensions and universal joint	3.
Sockets, $\frac{3}{8}$ " drive, Metric 6-point shallow, 6 mm – 24 mm (19 pieces)	4.
Sockets, $\frac{1}{2}$ " drive, Metric 12-point shallow, 10 mm – 28 mm (19 pieces)	5.
Wrench set - SAE combination, 12-point, 16 piece, $\frac{1}{4}$ " - $1\frac{1}{4}$ "	6.
Wrench set - Metric combination, 12-point , 18 piece, 7 mm - 24 mm	7.
Pliers, 8" combination	8.
Pliers, 6" needle nose	9.
Pliers, 7" diagonal cutting	10.
Locking pliers, 10" (curved jaw with wire cutter)	11.
Pry / aligning bar, 16", rolling head "lady's foot"	12.
Alignment punch, 16- 18"	13.
Hammer, ball-peen, 12 oz	14.
Hammer, dead-blow, 2 lb	15.
Carbon scraper, rigid, stiff blade, 1" wide	16.
Adjustable wrench, 12" (300 mm)	17.
Screwdriver set - Should include the following: Standard, slotted (tip size x overall length): $\frac{1}{4}$ " x $3\frac{1}{4}$ " (stubby) Standard, slotted (tip size x overall length): $\frac{1}{4}$ " x $8\frac{1}{2}$ " Standard, slotted (tip size x overall length): $\frac{5}{16}$ " x $10\frac{1}{2}$ " Standard, slotted (tip size x overall length): $\frac{3}{8}$ " x $13\frac{1}{2}$ " Phillips, (tip size x overall length): #2 x $3\frac{1}{4}$ " (stubby) Phillips, (tip size x overall length): #1 x $6\frac{3}{4}$ " Phillips, (tip size x overall length): #2 x $8\frac{3}{4}$ " Phillips, (tip size x overall length): #3 x 11"	18.
Centre punch, $\frac{7}{16}$ " hex, $\frac{1}{4}$ " point x 6" long	19.
Hex key set - SAE 15 piece, $\frac{5}{64}$ " – $\frac{5}{8}$ "	20.
Hex key set - Metric 10 piece, 1.5 mm - 12 mm	21.
Feeler gauge set - 25 blade, 0.0015" - 0.035"/ 0.04 mm - 1.00 mm.	22.
O-ring pick / scribe, 9", straight tempered point and a 90° hook	23.
Electrical pliers, with wire stripper / cutter, crimper, and machine screw cutter	24.
Hacksaw, 12"	25.
Plastic/ Rubber handled mill file, 10", single-cut, second-cut	26.
Plastic/ Rubber handled mill file, 10", double-cut, bastard-cut	27.
Tape measure, 25' measures in inches and cm	28.
Plastic caliper, 6inch, measures in inches and cm	29.
Gloves, solvent resistant Nitrile (for protection against petroleum solvents)	30.
Flashlight / trouble light	31.
Soldering gun 100W	32.
Automotive-style digital multi-meter	33.

Total cost of supplies and tools is approximately \$3,315 for the Heavy Equipment Technician program.