

# Motorcycle Required Materials and Tools

## Required Uniform



Head	Safety glasses/goggles
Top	Advanced Transportation and Manufacturing shop shirt   <b>quantity: 3-5</b>
Bottom	black pants
Footwear	closed toe, closed heel, slip resistant, and oil resistant shoes/boots

## Required Textbooks

- ISBN: 978-1566374798 | Motorcycles: Fundamentals, Service, Repair (1999)  
ISBN: 978-0133994612 | Automotive Technology, Principles, Diagnosis & Service, 5th edition (2015)

## Recommended

Laptop or tablet

## Specialty Tools | Required Courses

### MCYCMEK 210 | Motorcycle Fuel Induction and Pollution Control

TOOL	TOOL DETAIL
<input type="checkbox"/> Adjustable wrench (crescent wrench)	14" or larger flat feeler gauges (.002" on minimum size)
<input type="checkbox"/> Air gun	
<input type="checkbox"/> Ball peen hammer	
<input type="checkbox"/> Combination wrenches (open end)	Sizes: <b>8-15 mm, 17 mm, &amp; 19 mm</b>   12 pt. box
<input type="checkbox"/> Diagonal cutters	
<input type="checkbox"/> Extensions	3/8" drive   Sizes: 3" & 6"
<input type="checkbox"/> Flashlight	
<input type="checkbox"/> Golf tees	
<input type="checkbox"/> Hand impact driver with bits (3/8 drive preferable)	
<input type="checkbox"/> Hex keys (Allen wrenches)	Sizes: 2- 8mm, 10mm, & 12mm
<input type="checkbox"/> Locking pliers (vise grips)	
<input type="checkbox"/> Needle nose pliers	
<input type="checkbox"/> Plastic freezer bags	
<input type="checkbox"/> Ratchet	3/8" drive
<input type="checkbox"/> Screwdrivers	Sizes: various flat blade
<input type="checkbox"/> Screwdrivers	Sizes: Phillip's # 1, #2 (various lengths), & #3
<input type="checkbox"/> Sockets set	3/8" drive   Sizes: <b>8-15mm, 17mm, &amp; 19mm</b>   6 point
<input type="checkbox"/> Spark plug gauges	
<input type="checkbox"/> Spark plug sockets	3/8" drive   Sizes: 13/16" & 18 mm
<input type="checkbox"/> Tire inflator	
<input type="checkbox"/> Tire pressure gauge	
<input type="checkbox"/> Tongue and groove pliers (Channel-Locks)	Size: 12"
<input type="checkbox"/> Tool Box, Lockable	

### MCYCMEK 212 | Motorcycle Tune-up and Chassis Maintenance

TOOL	TOOL DETAIL
<input type="checkbox"/> Air impact wrench with metric sockets	
<input type="checkbox"/> Auxiliary fuel tank	
<input type="checkbox"/> Chain breaker/riveter set	
<input type="checkbox"/> Dead blow hammer	
<input type="checkbox"/> Die grinder	
<input type="checkbox"/> Motorcycle vacuum gauges	
<input type="checkbox"/> Punches, chisels	
<input type="checkbox"/> Socket mounted Allen wrenches	
<input type="checkbox"/> Soft drifts	brass and aluminum
<input type="checkbox"/> Torque wrench	
<input type="checkbox"/> X-ACTO knife	

## MCYCMEK 214 | Motorcycle Electrical Principles and Repair

TOOL	TOOL DETAIL
<input type="checkbox"/> Analog multimeter	
<input type="checkbox"/> Deep sockets	3/8" drive   Sizes: 8-15mm, 17mm, & 19mm   6 point
<input type="checkbox"/> Digital multimeter	
<input type="checkbox"/> Inductive tachometer	
<input type="checkbox"/> Inductive timing light	
<input type="checkbox"/> Nitrite gloves	
<input type="checkbox"/> Soldering gun	
<input type="checkbox"/> Soldering wire	60/40 rosin core for electrical
<input type="checkbox"/> Test leads	
<input type="checkbox"/> Thread repair kit (Time-Sert style)	Size: 6 X 1.0mm
<input type="checkbox"/> Wrist pin extractor	

## MCYCMEK 216 | Motorcycle Engine Overhaul and Diagnosis

TOOL	TOOL DETAIL
<input type="checkbox"/> Calipers	
<input type="checkbox"/> Micrometers	
<input type="checkbox"/> Oversize/undersize sockets	Sizes: up to 36mm
<input type="checkbox"/> Oversize/undersize wrenches	Sizes: up to 36mm
<input type="checkbox"/> Specialty rotor pullers	
<input type="checkbox"/> Tools specific to certain models	

## Specialty Tools | Major Elective Courses

### AUTORTK 122 | Electrical/Electronic Systems Theory, Inspection & Repair

TOOL	TOOL DETAIL
<input type="checkbox"/> 12 volt test light	
<input type="checkbox"/> 16 gauge Jumper wires with alligator clips	quantity: 8   Min. length: 3 Feet
<input type="checkbox"/> Wire crimpers/wire stripper	MAC tool #TCT 2000 or equivalent
<input type="checkbox"/> Check Major Elective General List <b>PART 1</b> for additional tools	See column 122

### AUTORTK 123 | Fuel & Emissions Systems Theory, Inspection & Repair

TOOL	TOOL DETAIL
<input type="checkbox"/> Check Major Elective General List <b>PART 1</b> for additional tools	See column 123

### AUTORTK 135 | Computer Control and Fuel Injection Heating and Air

TOOL	TOOL DETAIL
<input type="checkbox"/> Back Probe Pins	quantity: 4
<input type="checkbox"/> PCM scanner	
<input type="checkbox"/> Check Major Elective General List <b>PART 1</b> for additional tools	See column 135

## Major Elective General Tools

### PART 1 | Tools used in multiple courses

TOOL	TOOL DETAIL	course numbers		
		122	123	135
<input type="checkbox"/> Cylinder leak down tester / cylinder compression tester			X	
<input type="checkbox"/> Digital Volt - Ohm - Meter (DVOM)		X	X	X
<input type="checkbox"/> Flashlight	Telescoping gauge			X
<input type="checkbox"/> Hand vacuum pump kit with gauge	MityVac #4000		X	
<input type="checkbox"/> Heavy-duty remote starter switch	MAC# SS25 or equivalent	X	X	

## PART 2 | Tools used in all Major Elective Courses

TOOL	TOOL DETAIL
<input type="checkbox"/> Adjustable pliers	Size: <b>9"</b> ( <i>Channel-Lock™</i> )
<input type="checkbox"/> Adjustable wrench	Size: <b>10"</b>
<input type="checkbox"/> Ball peen hammer	Size: <b>24</b> ounce
<input type="checkbox"/> Bar, rolling head	Size: <b>18"</b>
<input type="checkbox"/> Caliper (dial/digital optional)	Size: <b>6"</b>
<input type="checkbox"/> Center punch	Size: <b>1/2" X 4 1/2"</b>
<input type="checkbox"/> Cold chisel	Size: <b>5/8"</b> cut
<input type="checkbox"/> Combination wrench set	Sizes: <b>1/4"</b> to <b>1"</b>
<input type="checkbox"/> Combination wrench set	Sizes: <b>6</b> mm to <b>19</b> mm
<input type="checkbox"/> Common pliers	Size: <b>6"</b>
<input type="checkbox"/> Diagonal cutting pliers	Size: <b>7"</b>
<input type="checkbox"/> Feeler gauge set	Sizes: <b>.0015"</b> to <b>.035"</b> (MAC # FG002 or equivalent)
<input type="checkbox"/> Feeler gauge set	Sizes: <b>.038mm</b> to <b>.889mm</b> (MAC # FG002 or equivalent)
<input type="checkbox"/> File handles (2 each)	
<input type="checkbox"/> Gasket scraper	
<input type="checkbox"/> Hacksaw	
<input type="checkbox"/> Hacksaw blades	Sizes: <b>18</b> tooth & <b>32</b> tooth
<input type="checkbox"/> Metric socket set	<b>1/4"</b> drive   Sizes: <b>5</b> mm to <b>14</b> mm (6 point)
<input type="checkbox"/> Metric socket set	<b>3/8"</b> drive   Sizes: <b>6</b> mm to <b>19</b> mm (6 point)
<input type="checkbox"/> Metric socket set	<b>1/2"</b> drive   Sizes: <b>10</b> mm to <b>27</b> mm (6 point)
<input type="checkbox"/> Mill file	Size: <b>11 1/2"</b>
<input type="checkbox"/> Needle nose pliers	Size: <b>6"</b>
<input type="checkbox"/> Nylon parts cleaning brush	
<input type="checkbox"/> Pin punch set	
<input type="checkbox"/> Screwdriver	Size: <b>4"</b> flat blade
<input type="checkbox"/> Screwdriver	Size: <b>6"</b> flat blade
<input type="checkbox"/> Screwdriver	Size: <b>8"</b> flat blade
<input type="checkbox"/> Screwdriver	Size: <b>12"</b> flat blade
<input type="checkbox"/> Screwdriver	Size: <b>4"</b> Phillips #1
<input type="checkbox"/> Screwdriver	Size: <b>4"</b> Phillips #2
<input type="checkbox"/> Socket adapter	Sizes: <b>3/8"</b> drive to <b>1/2"</b> drive
<input type="checkbox"/> Socket adapter	Sizes: <b>1/2"</b> drive to <b>3/8"</b> drive
<input type="checkbox"/> Socket adapter	Sizes: <b>1/4"</b> drive to <b>3/8"</b> drive
<input type="checkbox"/> Soft face hammer	Size: <b>24</b> ounce
<input type="checkbox"/> Spark plug gap gauge, wire type	
<input type="checkbox"/> Spark plug sockets	<b>3/8"</b> drive   Sizes: <b>5/8"</b> & <b>13/16"</b>
<input type="checkbox"/> Steel rule	Size: <b>6"</b> with cross bar (combination inches & metric)
<input type="checkbox"/> Toolbox or rollaway cart w/secure lock	
<input type="checkbox"/> Trigger type oil can	
<input type="checkbox"/> Vise Grip™ pliers set	