

Program Information

Automotive Service Technician

Program Overview	This program combines hands-on learning in a shop environment, classroom theory, and MITT's Bridging to Work workshops to equip students with career-ready fundamentals in automotive repair, basic diagnostics, and troubleshooting. Graduates who meet specific criteria can earn credit toward Apprenticeship Manitoba Level 1.
Area of Study	Skilled Trades
Credential	Advanced Certificate
Program Length	1 Year Full time (10 months)
Delivery	In-classroom
Work-Integrated Learning	5-week practicum
Open to International Students	Yes
CIP Code	47.0604

Career Outcomes

- Auto Mechanic
- Service Writer
- Parts Salesperson
- Service Manager
- Shop Foreman

All Courses

Course Name	Description	Hours
Automotive Service Tools and Equipment (AUTO-1000)	This course introduces students to the safe operation of hand tools and shop equipment used in automotive repair. Topics include measuring tools, welding and cutting equipment, and fabrication tools, as well as basic vehicle maintenance procedures.	40 hours
Orientation and Safety (SAFE-1000)	This course introduces students to the automotive industry, exploring career opportunities, shop safety, and fundamental automotive concepts. Topics include shop organization, workplace hazards, and the principles of vehicle systems.	50 hours
Orientation and Safety Lab (SAFE-1010)	Students apply safety knowledge in a hands-on automotive shop environment. They demonstrate awareness of workplace hazards, proper use of personal protective equipment, and safe handling of jacks and jack stands through individual and group activities.	25 hours

Automotive Service Tools and Equipment Lab (AUTO-1010)	Students gain hands-on experience using tools and equipment in an automotive repair setting. Emphasis is placed on safe work practices, proper tool handling, and fundamental repair techniques necessary for a modern shop environment.	60 hours
Engine Fundamentals (AUTO-1100)	This course covers the structure and operation of internal combustion engines. Students study engine components, cylinder block and head construction, and diagnostic tools used to service and troubleshoot engine systems.	50 hours
Engine Fundamentals Lab (AUTO-1110)	Students gain practical experience by fully disassembling and reassembling a gasoline engine. Emphasis is placed on precision measurements, organization, and adherence to service procedures.	50 hours
Brakes, Tires, and Driveshafts (AUTO-1120)	This course introduces students to braking systems, wheel and tire construction, and drivetrain components. Topics include hydraulic brake systems, tire technology, and CV and universal joints in driveshaft assemblies	30 hours
Brakes, Tires, and Driveshafts Lab (AUTO-1130)	Students practice brake system repairs, tire and wheel servicing, and driveshaft maintenance using hands-on exercises in a shop environment. Training includes both on-car and bench-based procedures.	45 hours
Electrical Fundamentals (AUTO-1140)	Students learn the basics of automotive electrical systems, including circuit theory, Ohm's Law, and wiring diagram interpretation. Training includes using	50 hours

	diagnostic tools to troubleshoot common electrical faults.	
Electrical Fundamentals Lab (AUTO-1150)	Students develop hands-on diagnostic skills for electrical systems. Exercises include voltage and resistance testing, wiring repairs, and using test lights and multimeters for fault diagnosis.	50 hours
Engine Systems and Diagnosis (AUTO-1200)	This course covers engine lubrication, cooling, intake, and exhaust systems, including turbochargers and superchargers. Students learn system functions and common diagnostic methods used in the automotive industry.	37 hours
Engine Systems and Diagnosis Lab (AUTO-1210)	Students apply diagnostic skills to engine systems, performing oil pump and cooling system inspections, intake and exhaust component removal, and turbocharger servicing while demonstrating knowledge of system hazards.	38 hours
Suspension, Steering, and Alignment (AUTO-1220)	This course covers the function and operation of modern suspension and steering systems, along with alignment principles and service procedures. Students study suspension travel, steering linkages, and four-wheel alignment processes.	40 hours
Suspension, Steering, and Alignment Lab (AUTO-1230)	Students gain practical experience in servicing suspension and steering components. They perform pre-alignment inspections, adjust alignment angles, and conduct test drives on live vehicles.	60 hours
Automotive Electrical and	This course covers starter and charging system operation, lighting systems, and	30 hours

Diagnosis (AUTO-1240)	the use of automotive scan tools. Topics include alternators, voltage regulation, and on-board diagnostics (OBD) for modern vehicles.	
Automotive Electrical and Diagnosis Lab (AUTO-1250)	Students diagnose and service starter and alternator systems, troubleshoot lighting circuits, and use scan tools to retrieve diagnostic trouble codes (DTCs) and sensor data on live vehicles.	45 hours
Maintenance and Customer Service (AUTO-1300)	This course introduces students to customer service principles, work order processing, and parts management. Students practice communication skills while performing vehicle inspections and preventative maintenance.	50 hours
Automotive Work Practicum (AUTO-1900)	This work-integrated learning experience places students in an automotive repair facility, providing real-world experience in diagnostics, repairs, and customer service. The practicum helps build technical skills, confidence, and job readiness.	200 hours
Communications Essentials (COMM-1000)	This course equips students with workplace communication skills, including résumé writing, interview preparation, and professional interactions. Practical exercises enhance verbal and written communication in automotive settings.	42 hours
Trades Math (MATH-1000)	This course provides students with fundamental mathematical skills relevant to the automotive trade. Topics include arithmetic, algebra, geometry, and measurement techniques used in diagnostics and repairs.	42 hours

