

# MOTIVE POWER FUNDAMENTALS - AUTOMOTIVE SERVICE APPRENTICESHIP

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**Program:** ASAP

**Credential:** Ontario College Certificate

**Delivery:** Full-time

**Work Integrated Learning:** Apprentice Placement

**Length:** 720 hours

**Effective:** Fall 2023

**Location:** Owen Sound

## Description

The motive power field encompasses a variety of vehicle transportation. Graduates of the Motive Power Fundamentals - Automotive Service Apprenticeship program have demonstrated achievement of vocational learning outcomes that include the essential skills, knowledge, and attitudes for entry level positions in specific motive power environments. This 720-hour program which consists of a 240-hour level 1, a 240-hour level 2, and a 240-hour level 3, is designed to provide the apprentice with theoretical knowledge of all aspects of automotive repair, as well as practical training necessary to complement the apprentice's on-the-job training experience.

Automotive Service Technician is a trade regulated by the Ontario College of Trades and Apprenticeships Act 2009. Qualified Individuals may obtain a Certificate of Qualification, which confirms its holder has the skills, knowledge and experience that meet industry standards of practice for the trade.

## Career Opportunities

Automotive Service Technicians perform preventative maintenance, diagnose problems, and repair the systems of cars and light trucks. They are employed by motor vehicle dealers, garages, truck and trailer dealerships, fleet maintenance companies, and service stations, automotive specialty shops, transportation companies and retail establishments which have automotive service shops.

Career opportunities include, but are not limited to, the following positions:

- Automobile Mechanic
- Automotive Engine Mechanic Inspector
- Automotive Service Technician
- Motor Vehicle Inspector and Tester
- After Sales Service Technician
- Parts Manager

## Program Learning Outcomes

The graduate has reliably demonstrated the ability to:

1. identify basic motive power system problems by using critical thinking skills and strategies and by applying fundamental knowledge of motor vehicle operation, components, and their interrelationships;
2. identify, inspect, and test basic engine components and systems in compliance with manufacturers' recommendations;
3. identify, inspect, and test basic electrical, electronic, and emission components and systems in compliance with manufacturers' recommendations;
4. identify, inspect, and test basic drive train components and systems in compliance with manufacturers' recommendations;
5. identify, inspect, and test basic suspension, steering, and brake components and systems in compliance with manufacturers' recommendations;
6. disassemble and assemble components to required specifications by applying workshop skills and knowledge of basic shop practices;
7. use a variety of test equipment to assess basic electronic circuits, vehicle systems, and subsystems;
8. apply basic knowledge of hydraulics and pneumatics to the testing and inspection of basic motive power systems and subsystems;
9. communicate information effectively, credibly, and accurately by producing supporting documentation to appropriate standards;
10. use information technology and computer skills to access data concerning repair procedures and manufacturers' updates;
11. prepare logs, records, and documentation to appropriate standards;
12. apply business practices and communication skills to improve customer service;
13. develop and use personal and professional strategies and plans to improve professional growth, job performance, and work relationships;
14. complete all assigned work in compliance with occupational, health, safety, and environmental law; established policies and procedures; codes and regulations; and in accordance with ethical principles;
15. identify, inspect and test supplementary restraint systems according to manufacturers' service procedures;
16. identify, inspect and test hybrid vehicle systems according to manufacturers' service procedures.

## External Recognition

Upon successful completion of their level 3 in-school training, apprentices must complete the remainder of the required skills outlined in the Training Standard Log Book to qualify for their Certificate of Apprenticeship. Thereafter, they are eligible to write their Certificate of Qualification exam for this Red Seal Trade. There are no direct ladder opportunities out of the program; however, graduates may be able to receive credits toward further education in related post-secondary diploma, advanced diploma, or degree programs.

## Admission Requirements

- Ontario Secondary School Diploma (OSSD) or equivalent, mature student status
- Prospective students must be registered apprentices with the Ministry of Labour, Training and Skills Development

## Additional Information

An apprenticeship involves practical training provided on-the-job by a skilled worker, or trainer. The skills or competencies to be developed are set out by the trade's apprenticeship training standard and are recognized by the industry as being essential to the practice of the trade.

As these essential skills are developed, the apprentice's sponsor or trainer signs the relevant sections of the training standard to indicate that the apprentice has met the individual training objectives by demonstrating the skills required of a skilled worker, or journeyman, in the trade.

To advance through the levels of the apprenticeship program, an individual must have completed all of the units outlined in the previous level (i.e. complete Level 1 before advancing to Level 2).

## Graduation Requirements

Students must successfully complete all three levels to receive a certificate.

- Automotive Service Technician Level 1 - Basic (ASAB)
- Automotive Service Technician Level 2 - Intermediate (ASAI)
- Automotive Service Technician Level 3 - Advanced (ASAA)

## Graduation Eligibility

Students must successfully complete all required courses as noted below. Further details, if applicable, are noted under "Additional Information" above.

### Program Tracking

#### Level 1 - Basic (ASAB)

Program Courses	Hours
ASAB 1000 Work Practices	30
ASAB 1001 Engine Systems	36
ASAB 1002 Electrical/Electronic and Emissions Systems	96
ASAB 1003 Drive Train Systems	36
ASAB 1004 Suspension/Steering and Brake Systems	42
<b>Hours</b>	<b>240</b>
<b>Total Hours</b>	<b>240</b>

#### Level 2- Intermediate (ASAI)

Program Courses	Hours
ASAI 1000 Air Conditioning Systems	30
ASAI 1001 Engine Systems 2	36
ASAI 1002 Electrical/Electronic and Emissions Systems 2	96
ASAI 1003 Drive Train Systems 2	36
ASAI 1004 Suspension/Steering and Brake Systems 2	42
<b>Hours</b>	<b>240</b>
<b>Total Hours</b>	<b>240</b>

## Level 3- Advanced (ASAA)

Program Courses	Hours
ASAA 1000 Work Practices 3	30
ASAA 1001 Engine Systems 3	36
ASAA 1002 Electrical/Electronic and Emissions Systems 3	96
ASAA 1003 Drive Train Systems 3	36
ASAA 1004 Suspension/Steering and Brake Systems 3	42
<b>Hours</b>	<b>240</b>
<b>Total Hours</b>	<b>240</b>

**Disclaimer.** *The information in this document is correct at the time of publication. Academic content of programs and courses is revised on an ongoing basis to ensure relevance to changing educational objectives and employment market needs.*

*Program outlines may be subject to change in response to emerging situations, in order to facilitate student achievement of the learning outcomes required for graduation. Components such as courses, progression, coop work terms, placements, internships and other requirements may be delivered differently than published.*