



ASTA4 – Automotive Service Technician Apprenticeship Level 4

Trades

Effective Term & Year: Winter 2025
Program Outline Review Date: 2030-09-01

Program Area: Trades Apprenticeship Training

Description:

This 7-week program delivers the skills, knowledge and training required for Level 4 of the 4-level Automotive Service Technician Apprenticeship program. Program competencies covered include diagnosing and repairing diesel engines, vehicle networking systems, driveline systems, electrical systems and components, heating, ventilation and air conditioning (HVAC) and comfort control systems, restraint systems, body components, accessories and trim and hybrid and electric vehicles (EV). This program includes classroom theory, demonstrations and practical hands-on training in a fully functioning automotive shop. Safe work habits are important in this trade and are emphasized, reinforced and practiced throughout the program.

Credentials Granted:

- Level 4 Technical Training credit of the Automotive Service Technician Apprenticeship program from SkilledTradesBC for Level 4
- College of the Rockies Automotive Service Technician Apprenticeship Level 4 Certificate

Delivery Methods: On-Campus (Face-to-Face), Online

Program Duration: 7 week

Instructional Activity and Hours:

Activity	Hours
Instructional Hours (hrs/wk)	28 hrs/wk
Directed Studies (hrs/wk)	2 hrs/wk

Total (hrs/wk)	30 hrs/wk
Total Program Hours	210 Hours

Content Weighting:

Activity	Percentage
Classroom, Directed Studies or Online Instruction	70%
Seminar/Tutorials	30%

Admission Requirements:

Sponsored Automotive Service Technician that has successfully completed Level 3 Automotive Service Technician technical training.

Prior Learning and Recognition:

Credit cannot be awarded for this program through Flexible Assessment.

Program Transfer Credit:

For information about block transfer agreements between programs in British Columbia, Alberta, and elsewhere, please visit <http://www.cotr.bc.ca/transfer>.

To minimize transfer issues, check with an academic advisor at the institution that will receive the transfer credits.

Textbooks and Required Resources:

Textbook selection varies by instructor and may change from year to year. At the Program Outline Effective Date the following textbooks were in use (most current edition):

AST – Level 4: COTR Custom Package (ILMs)

Automotive Transmissions and Transaxles (CDX)

Light Vehicle Diesel Engines (CDX)

Automotive Heating and Ventilation and Air Conditioning (CDX)

Light Duty Hybrid and Electric Vehicles (CDX)

Program Competencies and Technical Training Content:

Upon successful completion of this program, students will be able to:

AMST 401 Use Communication and Mentoring Techniques

- Use mentoring techniques

AMST 402 Diagnose and Repair Diesel Engine Support Systems

- Diagnose and repair diesel fuel delivery and injection systems
- Diagnose and repair diesel intake and exhaust systems
- Diagnose and repair diesel emission control systems

AMST 403 Diagnose and Repair Vehicle Networking Systems

- Diagnose and repair networking systems

AMST 404 Diagnose and Repair Driveline Systems

- Diagnose and repair automatic transmissions and transaxles
- Diagnose and repair all-wheel drive (AWD) systems

AMST 405 Diagnose and Repair Electrical Systems and Components

- Diagnose and repair instrumentation, entertainment systems and displays

AMST 406 Diagnose and Repair Heating, Ventilation and Air Conditioning (HVAC) and Comfort Control Systems

- Diagnose and repair air flow control and heating systems
- Diagnose and repair refrigerant systems

AMST 407 Diagnose and Repair Restraint Systems, Body Components, Accessories and Trim

- Diagnose and repair restraint systems

AMST 408 Diagnose and Repair Hybrid and Electric Vehicles (EV)

- Diagnose and repair hybrid and electric vehicle (EV) systems

- Diagnose and repair hybrid and electric vehicle (EV) temperature management systems

Evaluation and Assessment:

AUTOMOTIVE SERVICE TECHNICIAN LEVEL 4

COTR COURSE	SUBJECT COMPETENCIES	THEORY WEIGHTING	PRACTICAL WEIGHTING
AMST 401	Use Communication and Mentoring Techniques	1%	0%
AMST 402	Diagnose and Repair Diesel Engine Support Systems	15%	20%
AMST 403	Diagnose and Repair Vehicle Networking Systems	7%	10%
AMST 404	Diagnose and Repair Driveline Systems	20%	25%
AMST 405	Diagnose and Repair Electrical Systems and Components	10%	0%
AMST 406	Diagnose and Repair heating, Ventilation and Air Conditioning (HVAC) and Comfort Control Systems	22%	25%
AMST 407	Diagnose and Repair Restraint Systems, Body Components, Accessories and Trim	8%	5%
AMST 408	Diagnose and Repair Hybrid and Electric Vehicles (EV)	17%	15%
Total		100%	100%
In-school theory & practical subject competency weighting		70%	30%
Final in-school mark		IN-SCHOOL %	
In-school Mark		100%	
Combined theory and practical subject competency			
Final Percentage Mark		FINAL%	
Apprentices must achieve a minimum 70% for the final in-school mark to be eligible to write the Automotive Service Technician Interprovincial Red Seal exam			

Pass Requirements:

- Successful completion of the in-school training is defined as a final overall minimum of 70% to meet SkilledTradesBC standards.
- Students must maintain an acceptable level of attendance, complete all assigned projects and pass all exams to successfully complete the program.

Students must provide their own:

- Steel-toed Leather Work Boots
- Safety Glasses
- Coveralls

- Gloves
- Pens, pencils, three-ring binder
- Calculator
- Paper
- Multimeter

Academic Policies:

College of the Rockies policies related to courses can be found at <https://cotr.bc.ca/about-us/college-policies/> and include the following:

- Policy 2.1.4 Course Audit
- Policy 2.4.1 Credential Framework
- Policy 2.4.3 Students with Documented Disabilities
- Policy 2.4.4 Student Rights, Responsibilities and Conduct
- Policy 2.4.8 Academic Performance
- Policy 2.4.9 Student Feedback and Concerns
- Policy 2.4.11 Storage of Academic Works
- Policy 2.5.3 Student Appeal
- Policy 2.5.5 Prior Learning Assessment and Recognition (PLAR)

Program Grade

COM	NCG
Completed to the defined standard – 70% or greater	No Credit Granted – less than 70%

Program Changes:

Information contained in program outlines is correct at the time of publication. Content of the program is revised on an ongoing basis to ensure relevance to changing educational, employment, and marketing needs. The instructor endeavours to provide notice of changes to students as soon as possible. The instructor reserves the right to add material to programs.

Industry Training:

The program competencies and technical training content delivered in this program follow the SkilledTradesBC Program Outline for this trade.

Safety Catalog:

WorkSafeBC regulations apply to all trades programs. Students are expected to follow all safe work practices and have high regard for the safety of others as well as of themselves. Students

are responsible to wear personal protective equipment (PPE) as directed. At a minimum, students must provide and wear approved safety footwear and eyewear at all times in the shop. Additional PPE may be required for specific tasks. Students are expected to wear clothing suitable for working safely in the shop.

Course Descriptions: Refer to Course Outlines – <https://outlines.cotr.bc.ca/course/>