



ASTA2 – Automotive Service Technician Apprenticeship Level 2

Trades

Effective Term & Year: Fall 2022

Program Outline Review Date: 2028-09-01

Program Area: Trades Apprenticeship Training

Description:

This program covers the program competencies specified by the Industry Training Authority (ITA) for Level 2 of the four-level Automotive Service Technician Apprenticeship program. Apprentices will develop the skills, knowledge and technical training related to diagnosing and repairing cooling and lubricating systems, engine assemblies, manual transmissions, clutches and drive assemblies, as well as steering, suspension, and braking control systems. Safe work practices related to the automotive trade are reinforced throughout the program.

Credentials Granted:

Level 2 Technical Training credit for the Automotive Service Technician Apprenticeship program from the Industry Training Authority (ITA)

Delivery Methods: Hybrid (Face-to-Face and Online)

Program Duration: 7 weeks

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 apprentice that has successfully completed Level 1 technical training or Automotive Service Technician Foundation program

Flexible Assessment:

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 2: COTR Custom Package

Santini, K & VanGelder, K. (2019) *Automotive drivetrain & manual transmissions*. CDX, Jones & Bartlett Learning, Burlington, MA.

Halderman, J.D. (2017) *Automotive electricity and electronics*, (5th ed). Pearson Education.

Halderman, J.D., (2018) *Automotive engines: Theory and servicing*, (9th ed). Pearson Education: New York, NY.

Optional:

Erjavec, J., Restoule, M., Leroux, S., & Thompson, R. (2015) *Technology – A systems approach (+ supplement & Test Prep Kit)* (3rd Can ed).

Please see the instructor's syllabus or check COTR's online text calculator <https://textbook.cotr.bc.ca/> for a complete list of the currently required textbooks.

Program Competencies and Technical Training Content:

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

AMST 201 Diagnose and Repair Engine Systems

- Diagnose and repair cooling systems
- Diagnose and repair lubricating systems
- Diagnose and repair engine assembly
- Diagnose and repair accessory drive systems

AMST 202 Diagnose and Repair Driveline Systems

- Diagnose and repair manual transmissions and transaxles
- Diagnose and repair clutches
- Diagnose and repair final drive assemblies

AMST 203 Diagnose and Repair Electrical Systems and Components

- Diagnose and repair starting and charging systems and batteries
- Diagnose and repair lighting and wiper systems

AMST 204 Diagnose and Repair Steering and Suspension, Braking, Control Systems, Tires, Wheels, Hubs and Wheel Bearings

- Diagnose and repair steering and control systems
- Diagnose and repair suspension and control systems
- Diagnose and repair braking and control systems

Evaluation and Assessment:

AUTOMOTIVE SERVICE TECHNICIAN LEVEL 2

COTR COURSE SUBJECT COMPETENCIES		THEORY WEIGHTING	PRACTICAL WEIGHTING
AMST 201	Diagnose and Repair Engine Systems	30%	30%
AMST 202	Diagnose and Repair Driveline Systems	30%	30%
AMST 203	Diagnose and Repair Electrical Systems and Components	20%	20%
AMST 204	Diagnose and Repair Steering, Suspension, Braking, Control Systems, Tires, Wheels, Hubs and Wheel Bearings	20%	20%
Total		100%	100%
In-school theory & practical subject competency weighting		70%	30%
Final in-school percentage score		IN-SCHOOL %	
In-school Percentage Score Combined theory and practical subject competency multiplied by		80%	
Standardized Level Exam Percentage Score The exam score is multiplied by		EXAM%	
Final Percentage Score		FINAL %	

Pass Requirements:

In order to pass this program, students are required to

- achieve a minimum overall 70% final percentage score

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 2.4.3 Students with Documented Disabilities
- Policy 2.4.4 Student Conduct (plagiarism, other cheating, behavioral misconduct)
- Policy 2.5.8 Academic Performance

- Policy 2.5.3 Grade Appeal
- Policy 2.4.9 Student Concerns Re Faculty

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/>