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ATAP 2011: Automotive Service Technician Harmonized Apprentice Level 2

EFFECTIVE DATE

September 2017

DEPARTMENT

Automotive Tech Apprenticeship

DESCRIPTION

This course provides Automotive Service Technician Level 2 Apprentices with the skills and knowledge required for the Automotive Service Technician Harmonized Level 2 certification as set by the Industry Training Authority (ITA). Learners will perform advanced electrical testing by assessing, diagnosing and servicing starting systems, charging systems. Learners will also evaluate engine mechanical conditions and perform engine repairs through the assessment, diagnosis and servicing of gaskets and seals, lubrication systems and cooling systems. Learners will overhaul manual transmissions, as well as service clutch systems, transmission shifting linkage, hydraulic and electrical control systems, drive shafts, final drives, differentials and axles. Additionally learners will assess, diagnose, and service basic electrical systems, hydraulics, drum brake, disc brake, power assist, and anti-lock brake systems, steering systems as well as suspension systems. Upon successful completion of this course, apprentices will be able to progress to Automotive Service Technician Harmonized Level 3 technical training.

CREDITS

9.0

YEAR OF STUDY

2nd Year Post-secondary

PREREQUISITES

Successful completion of Automotive Service Technician Level 1 or Automotive Service Technician Harmonized Level 1.

COREQUISITES

None

COURSE LEARNING OUTCOMES

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

- Diagnose and repair cooling systems

- Diagnose and repair lubricating systems
- Diagnose and repair engine assembly
- Diagnose and repair accessory drive systems
- Diagnose and repair manual transmission and transaxles
- Diagnose and repair clutches
- Diagnose and repair final drive assemblies
- Diagnose and repair starting and charging systems and batteries
- Diagnose and repair lighting and wiper systems
- Diagnose and repair steering and control systems
- Diagnose and repair suspension and control systems
- Diagnose and repair braking and control systems

PRIOR LEARNING ASSESSMENT & RECOGNITION (PLAR)

None

HOURS

Lecture: 85

Lab: 125

INSTRUCTIONAL STRATEGIES

Instructional time is (approximately) 40% classroom and 60% practical activity. Classroom activities are lectures, demonstrations, audio-visual presentations and exercises. Practical experience takes place in an active shop setting. The extensive workshop experience provides reinforcement of theoretical concepts, develops hand skills, and familiarity with repair procedures, electronic equipment and standard safety procedures.

GRADING SYSTEM

Percentages-ITA

PASSING GRADE

70%

EVALUATION PLAN

Type	Percentage	Assessment activity
Final Exam	30	
Quizzes/Tests	40	Quizzes measure each general area of competency within the course as per ITA 2017 AST outline.

Lab Work	30	
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COURSE TOPICS

- Cooling systems
 - Lubricating systems
 - Engine assembly
 - Accessory drive systems
 - Manual transmission and transaxles
 - Clutches
 - Final drive assemblies
 - Starting and charging systems and batteries
 - Lighting and wiper systems
 - Steering and control systems
 - Suspension and control systems
 - Braking and control systems

LEARNING RESOURCES

None

Notes:

- Course contents and descriptions, offerings and schedules are subject to change without notice.
- Students are required to follow all College policies including ones that govern their educational experience at VCC. Policies are available on the VCC website at:
<https://www.vcc.ca/about/governance--policies/policies/>.
- To find out how this course transfers, visit the BC Transfer Guide at <https://www.bctransferguide.ca>.

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