

# **AUTOMOTIVE TECHNICIAN**

The Automotive Technician Program incorporates the Automotive Service Excellence (ASE) program certification standards and the National Automotive Technicians Education Foundation (NATEF) task lists. Students are required to take the National Automotive Student Skills Standards Assessment (NA3SA) technical skills assessments for Suspension and Steering, Brakes, Engine Repair, Electrical Systems, Automotive HVAC, and Transmissions. The program prepares students for further education and careers in automotive technology.

**Required Courses: All seven (7) of these courses are required to achieve Completer Status.**

## **SUSPENSION AND STEERING**

**170114 1 credit Grade 11 Code: CTP**

This course provides students with the knowledge and skills necessary to take the NATEF test for Automobile Suspension and Steering as well as to enter a career in this area and/or attend post-secondary education or training. Students develop diagnostic, technical problem solving, and academic skills through classroom instruction and hands-on maintenance applications. Students will use state-of-the-art precision steering and alignment measurement tools and equipment to gather, analyze, and make necessary repairs. The ASE certification test will be taken at the end of the course.

## **BRAKES**

**170124 1 credit Grade 11 Code: CTP**

This course provides students with the knowledge and skills necessary to take the technical skills assessment for automobile brakes as well as to enter a career in this area and/or attend post-secondary education or training. Students develop diagnostic, technical problem-solving, and academic skills through classroom instruction and hands-on maintenance applications. Students will use state-of-the-art precision brake measurement tools and equipment to gather, analyze, and make necessary repairs. The ASE certification test will be taken at the end of the course.

## **ENGINE PERFORMANCE**

**170144 1 credit Grade 11 Code: CTP**

This course provides students with the knowledge and skills necessary to take the technical skills assessment for automobile engine performance and immediately enter a career in this area and/or attend postsecondary education and/or training. Students develop diagnostic, technical problem-solving, and academic skills through classroom instruction and hands-on maintenance applications. Students will use state-of-the-art precision electronic engine performance measurement tools, fault code readers and other equipment to gather, analyze, and make necessary required engine performance repairs. The ASE certification test will be taken at the end of the course.

## **ENGINE REPAIR**

**170154 1 credit Grade 12 Code: CTC**

***Prerequisite: Suspension & Steering, Brakes, and Engine Performance***

This course provides students with the knowledge and skills necessary to take the technical skills assessment for engine rotations, valve trains, timing, small engines, Bernoulli's Principle, Venturi Effect, micrometer, material safety, engine teardown, abnormal engine noise, and evaluation of engine mechanical problems. Students will begin to work on customer's vehicles. The ASE certification test will be taken at the end of the course.

## **ELECTRICAL SYSTEMS**

**170134 1 credit Grade 12 Code: CTC**

***Prerequisite: Suspension & Steering, Brakes, and Engine Performance***

This course provides students with the knowledge and skills necessary to take the technical skills assessment for automobile electrical/electronic systems and immediately enter a career in this area and/or attend postsecondary education and/or training. Students develop diagnostic, technical problem-solving and academic skills through classroom instruction and hands-on maintenance applications. Students will use state-of-the-art precision electronic measurement tools, fault code readers and other equipment to gather, analyze, and make necessary required electrical and electronic system repairs. The ASE certification test will be taken at the end of the course.

## **AUTOMOTIVE HVAC**

**17016T ½ credit Grade 12 Code: CTC**

***Prerequisite: Suspension & Steering, Brakes, and Engine Performance***

This course will focus on the principle of refrigeration, the high and low sides of an air conditioning system and the safety precautions for working on heating and air conditioning systems. Students will work on customer vehicles. They will also take mock ASE tests to prepare for the ASE testing they take after completion of the course.

## **TRANSMISSIONS (AUTOMATIC & MANUAL)**

**17016U ½ credit Grade 12 Code: CTC**

***Prerequisite: Suspension & Steering, Brakes, and Engine Performance***

This course allows students to learn to identify/define the major part of both a manual and automatic transmission. They will be able to explain the fundamental operations of both types of transmission gears. Students will work on customer's vehicles. They will also take mock ASE tests to prepare for the ASE testing they take after completion of the course.