



Crocus Plains Regional Secondary School

Course Outline

Program: Automotive Technology

Course Title: AUA30S-Engine Fundamentals

Course Description: A student wanting to develop skills in the automotive industry must have knowledge of the basic principles of the internal-combustion engine, the inner workings and relations of the engine components and how those relate to vehicle operation. The student will become familiar with the components of engines, including valve trains, cylinder heads and linkages, and will learn to remove, repair and replace engines and their components.

General Learning Outcomes:

After completion of this course, student will be able to:

- Explain the theory of operation and related systems for the internal-combustion engine.
- Diagnose engine components and isolate sub-system malfunctions.
- Describe the procedures required to remove and reinstall engines.
- Inspect, test, and repair valve-train components and assemblies.
- Disassemble, clean, inspect, repair and reassemble cylinder-block assemblies.

Unit of Study

- Engine Fundamentals
- Engine parts identification and description
- Engine Disassembly
- Engine Inspection
- Engine Assembly
- Engine Diagnosis

Course Evaluation Structure:

• Theory: projects, assignment tests	25%
• Practical Shop Work and Projects	55%
• Final Assessment	<u>20%</u>
TOTAL	100%

