**COURSE MEC1040: ENGINE FUNDAMENTALS**

**Level:** Introductory

**Prerequisite:** None

**Description:** Students investigate and describe operating principles, construction and

 applications of engines.

**Parameters:** Access to engine measuring tools, related resources and engine units.

**Outcomes:** The student will:

**1. demonstrate the safe use of tools and follow established laboratory procedures.**

Complete the mechanics safety exam.

**2. compare operating principles of two- and four-cycle piston engines.**

Complete the MEC1040 worksheet.

**3. determine the condition of an internal combustion engine.**

 Complete the MEC1040 visual identification/explanation sheet; attempt to start the engine; disassemble the engine in stages – cooling shroud, gas tank, carburetor, crankcase; reassemble engine; start engine

**4. describe the by-products of combustion and their impact on the environment.**

**5. demonstrate basic competencies: Oral and written communication; demonstrate responsibility on a variety of levels.**

Complete evaluation, work cooperatively in shop

**6. make personal connections to the cluster content and processes to inform possible pathway choices.**

Complete occupational connections worksheet