Bellingham Technical College

Automotive Technology

**Dept / Course#**: AUTO 120A

**Clock Hours**: 100

**Course Title**: Engines

**Student Outcomes**: Student will have a working knowledge of a standard 4 stroke gasoline engine. Student will understand basic principles behind engine overhauls and modern engine repairs such as head gasket replacement and complete engine replacement.

**Course Description**: An introductory look at the 4 stoke gasoline engine followed by in depth repair procedures and practice using industry standard repair protocol.

**Course Outline**: Introduction to engine operation including related internal systems. In depth experience in valve train operation and appropriate repairs. In depth study of short block components and appropriate repairs. Instruction on operation and testing of lubrication and cooling systems.

**Student Performance Objectives (Course competencies)**: Given a specific task list, student will be able to perform all required NATEF tasks at industry standards in an acceptable time frame.

**Methods Of Instruction**: Power Point presentation, overheads, CDRom training programs, demonstration on vehicles and equipment, videos, peer tutoring, live shop work.

**Student Assignments/Requirements**: Competency in specific NATEF tasks. Attendance of 90% or better is a required task. Refer to grading standards.

**Evaluation and Grading Standards**:

Competency in specific NATEF tasks. Tests are ASE style in format. Attendance of 90% or better is a required task.

Students will be required to complete assigned exercises. Some exercises may be completed at the job site IF signed by a supervisor.

1/3 grade = Attendance
1/3 grade = Tests
1/3 grade = Exercises

90 - 100% = A
80 - 89% = B
70 - 79% = C
60 - 69% = D
59 or below = F
**REQUIRED STUDENT SUPPLIES & MATERIALS:**

Required text, appropriate shop clothing, safety glasses.

**ADDITIONAL INSTRUCTIONAL RESOURCES:**

In program library, ITRC, Internet, advisory committee, program vehicles, mach-ups, customer vehicles.