**Eddyville Charter School CAREER AND TECHNICAL EDUCATION**

**Fall Semester**

**SYLLABUS**

**COURSE TITLE: Small Engines –** ½ credit only one semester

**Instructor Phone # Email**

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**Course Description**

This course familiarizes students with the use of hand tools and small engines. Units of study include engine parts, systems and operation of the small engine. Lab orientation emphasizes safety, maintenance, and organization while allowing the student to disassemble and reassemble small engines. Students learn how to communicate on a technical level. Proper techniques and procedures in using tools, gauges, and precision measuring devices are followed. This course provides the entry-level skills required for more advanced study of engine and automotive technology.

**Prerequisites:** No Prerequisite

**Recommended Tools, Equipment and Supplies:**

Calculator, pencils, paper & shop binder

**General Course Objectives**

Upon completing this course you will be able to:

* Identify components and pieces of a small engine
* Measure engine components and tolerances
* Diagnose and troubleshoot small engine problems
* Identify key differences between 2 and 4 stroke engines
* Demonstrate process to disassemble and reassemble a small gas engine to working condition
* Research and evaluate career opportunities in the small engine repair field

**Methods of Instruction**

Lecture, Discussion, Lab, Peer Coaching, Demonstrations and various innovative in-class activities

**Grading**

Your grade is based on timely and accurate completion of class assignments, performance on verbal and written evaluations, and the final exam.

Notebook 20%

Safety Tests 10%

Class Projects 60%

Final Exam 10%

**Outline by Major Topics**

**Safety**

* General Safety
* Personal Safety
* Machine Safety

**Hand Tools**

* Categories
* Identification
* Safe operation

**Small Engines**

* Identify engine
* Identify parts
* Cylinder compression
* Fuel systems
* Governors
* Electric systems

**Interpreting manuals**

* Locating correct manual using engine numbers
* Reading and following manual directions

**Basic Math**

* Addition
* Subtraction
* Multiplication
* Division
* Fractions
* Converting Fractions to Decimal
* Converting Decimals to Fractions
* Formulas
* Measurement

**Other Topics**

* Trade Vocabulary
* Trade Occupations