

Champlin Park High School Technology Education
Course Description/Syllabus
Mr. Gerlach – Small Gas Engines/Automotives

Course Title: Small Engine I
Prerequisite: None

Grade Level: 9-12
Credit: 1/2

Course or Grade Level Description: Small Engines I is an introductory course on the four stroke cycle, single cylinder engine. The student will study the four strokes, engine parts identification, and engine operation. The student must tear down a four stroke engine, inspect and repair, reassemble, trouble shoot, and try to get the engine running. Student evaluation will be outcome based.

Major Text(s) Materials: (title, author, publishing company, copyright date)
Small Gas Engines Fundamentals, service, troubleshooting, repair, applications.
Sixth edition, by Alfred C. Roth, The Goodheart-Wilcox Company, Inc, 1998
Workbook-Small Gas Engines fundamentals, service, troubleshooting, repair, applications.
Third edition, by Alfred C. Roth, The Goodheart-Wilcox Company, Inc, 1998

Essential Learning Outcomes

Students will understand and be able to demonstrate:

- Proper safety procedures in the small engines laboratory
- Proper use of tools and measuring instruments
- Proper use of fasteners, sealants, and gaskets
- Basic engine construction and Principles of operation
- Differences between four and two stroke engines
- Basic theory of carburetion
- Basic theory of ignition systems
- Basic theory of the lubrication system
- Basic theory of cooling systems

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Assessment

- A. Notebook or folder containing one or more of the following; handwritten notes, handouts, unit worksheets (collected and graded) or related worksheets.
- B. Tests and Quizzes (final to be announced).
- C. Teacher observation of students working in lab including completion of assigned lab activities.
- D. Participation/Attendance – participation meaning being in class on time and prepared to make a positive classroom contribution

Grading

90-100% = A – Outstanding
80-89% = B – Above Average
70-79% = C – Average
60-69% = D – Below Average
0-59% = F – Failing

Additional Needs:

- A. Safety Glasses (Classroom set supplied by school)
- B. Shop Coat, Apron or coveralls
- C. Lock for locker (key or combination)

Contact Information

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