**Automotive Technology II**

*Course Syllabus*

Instructor: Mrs. Robertson

Email: vrobertson@hsd1.org

**1. Course Description**

 Automotive Technology II is a two-semester vocational/technical course that will instruct students in shop safety procedures, small engines, electrical systems, brakes, and auto body repair. Students will also learn workplace skills and participate in the SkillsUSA Professional Development Program to help prepare them for an entry-level position or further training in the automotive industry. The method of instruction will be a combination of lecture and demonstration, to be followed by student practice to provide for a competency based learning environment. This course is the second of a three-year automotive program and is open to Juniors only, unless permission has been granted by the instructor.

**2. Prerequisites:** Automotive Technology I with a C or above and instructor approval.

**3. Required Textbooks /Supplies**

* Modern Automotive Technology by James E. Duffy
* Collision Repair Fundamentals by James E. Duffy
* Safety glasses (non-tinted)
* Coveralls / shop coat
* Spiral notebook/binder

**4. Course Goals**

* Students will understand and apply all personal safety practices associates with the automotive industry.
* Students will understand technical terms related to the field of study.
* Students will be able to understand, diagnose, and repair small engines, electrical, brakes, and auto body with an 80% competency.
* Students will develop personal work habits required by employers.

**5. What I expect:**

* Follow all school rules in the handbook.
* Students are expected to have their notebooks and writing utensils, and be seated once the bell rings. No one will be allowed to go back to their lockers. Class will begin once I have taken roll and have greeted you as a class.
* Participate during class time. Be engaged, add to the conversation, ask questions, but be polite!
* Show courtesy to everyone. Any inappropriate language, disrespect, horseplay, or harm to another student will not be tolerated.
* Food and drinks are allowed, but are a privilege.
* Follow instructions.
* Ask questions.

**6. Classroom Rules**

* Come to class prepared and be in your seat when the bell rings
* Treat everyone respectfully
* Do not interfere with instruction
* Use appropriate language

**7. Classroom Policies**

* Violating class rules will result in one warning and reduction of daily points.
* Second offenses will result in detention with Mrs. Robertson before or after school.

**8. Cell Phone Policy**

* Cell phones are not to be used during class or shop time unless as an educational aide.
* Cell phones will be confiscated immediately upon unnecessary use.
* For each cell phone offense, you will clean the shop for 10 minutes on your own time. Each offense builds on the last one; which means the 2nd offense you clean for 20 minutes, 3rd offense 30 minutes, etc.

**9. Course Work**

1. If a student is absent, make-up work will be available from the instructor. Students will be given the number of days they were gone, plus one extra day to complete make-up work. It is the students responsibility to request make-up work. Missed daily grade scores will not be made up.

1. Assignments or make-up work turned in late will be docked 10%. ***All work must be turned in before beginning shop activities.***

**10. Notebooks**

1. Students are required to keep an orderly notebook/binder *and bring it to class every*

 *day*. Students are expected to keep dated classroom notes and handouts which will be

 turned in at the end of each semester for grading.

**11. Evaluation**

 A. Grading System

 **90-100% = A**

 **80-89% = B**

 **70-79% = C**

 **60-69% = D**

 **0-59% = F**

 B. Overall Evaluation

Students will be graded on a points system and will receive points for tests, worksheets, homework, binders, shop activities and daily grades. Your Daily Grade is based on safety, punctuality, participation, attitude, and clean up.

**12. Shop Rules- BE PROFESSIONAL!**

* Safety glasses required at all times
* Coveralls and proper foot wear required when working
* Clean up your area before leaving
* Put all tools back where they belong
* **NO HORSEPLAY!**

**13. Shop Policies**

* Any student violating a shop safety rule will be immediately confined to a seat for the remainder of the class period. Second offenses will result in a detention in addition to taking a seat. Further violations of safety rules will require a parent-teacher conference before the student is allowed to return to the shop area.
* Failure to wear safety glasses or put tools away will result in offending student being assigned a cleaning duty and reduction of daily points.
* In order for a shop to run successfully it must have tools. Should tools begin to disappear shop time will end immediately and instruction will be purely lecture/demonstration based until items are returned.
* **ALL** incidences must be reported to the instructor so that proper first aid can be given and reports filed.
* No student shall enter or leave the shop area for any reason without instructor approval.

**14. Safety**

* Emergency Procedures
* Fire evacuation procedure **(to be discussed in class)**
* Location of Safety Equipment **(to be discussed in class)**
* **No one** is allowed to work or operate equipment or tools in the shop without prior permission from the instructor.
* No vehicle will be allowed into the shop without instructor approval.
* Drive appropriately!

**Automotive Technology II**

*Course Outline*

***\_\_\_\_\_\_\_\_\_ 1st Semester\_\_\_\_\_\_\_\_\_***

**Unit 1- Small Engines**

* Safety
* Electricity
* Engine Principles/Parts
* Fuel & Ignition
* Cooling & Lubrication
* Maintenance & Troubleshooting
* Engine Disassembly & Inspection
* ***Small Engine Shop Activity***
* Engine Reassembly
* Lawn & Brush Equipment

**Unit 2- Electrical**

* Electrical Theory
* Batteries
* Starting Systems
* Charging Systems
* Lighting & Accessories
* Scan tools
* ***Shop Rotations***

***\_\_\_\_\_\_\_\_\_2nd Semester\_\_\_\_\_\_\_\_\_***

**Unit 3- Brakes**

* Braking System Fundamentals
* Hydraulic Brake Principles
* Brake Hydraulic Components
* Drum Brakes
* Disc Brakes
* Brake Inspection
* Brake Diagnosis
* ***Shop Rotations***

**Unit 5- Auto Body**

* Vehicle Construction
* Metal Straightening
* Plastic Repair
* ***Shop Activities***
* Preparation Work
* Painting Fundamentals
* Door & Glass Service
* Measuring Vehicle Damage
* Estimating