

Automotive Course Outline

11 Power Mechanics, All schools Semester 2, Turtle River School Division

Teacher: Mr. Johnston Email: Ljohnston@trsd.ca

Course Outline:

1. Health and Safety
2. Engine Fundamentals
3. Chassis Fundamentals
4. Drivetrain Fundamentals

No prerequisites required

Resources:

A combination of textbook theory work, research videos reviewed by me, and the use of my vehicle will be used to cover a lot of the bases for this course. More practical work will be provided by the tools and equipment available in our shop, along with demonstrations on how to use them during class.

Supply List:

Note book, pencil case with all required utensils (pencil, pen, erasers)

Classroom Rules and Expectations:

1. Respectful language and behavior to peers and the teacher
2. Listening to the person talking and do the instructions given by the instructor for the daily task without attitude
3. Come prepared to class with all necessary supplies
4. No cellphone use will be permitted, unless the laptops are unavailable and they can be used for research purposes only. Students will have 3 warnings, after the third warning the cellphone will be held in my desk until the end of class.
5. Always handle tools and equipment with care and respect

Assignment Guidelines:

Assignments are to be handed in on the due date I assign. Students can have extra time to finish any assignments during the due date class if they were absent or it does not interfere with the assignment or project that day.

Late assignments will appear as zero until they are completed and handed in. If a student or students continuously hand in late assignments the parents, or parent will be notified.

No tolerance for plagiarizing, if caught the student will receive a zero and will have to re-due the assignment.

Students that miss classes and fall behind will receive some assistance from me to help them catch up to the pace of the rest of the class, but will have to try their best on their own at home as well, and not rely solely on my help.

Units of Study:

1. Health and Safety

Outcomes: What is PPE and when it is required to be used. Refresh and refine their understanding of the Workplace Health and Safety Act and all aspects of the act how it effects them and how to apply it.

2. Engines

Outcomes: Learn what models and styles of engines there on vehicles today vs older models. Learn the terminology of engine components and their operations, along with how to come to a proper diagnosis of an engine problem and how it can be fixed.

3. Chassis

Outcomes: Learn, identify, and describe suspension, steering, body construction, brake systems and identify types of fluids and lubricants used in these systems. Along with how to inspect and come to a diagnosis, and how to follow through with service and repair using the proper tools and equipment.

4. Drivetrain

Outcomes: Learn, identify, and describe drivetrain components, and how to diagnose, service and repair using the proper tools, and equipment. In this portion I would also like to touch on Apprenticeship, jobs, and technical progression.

Assessment Guidelines:

- Teacher to student understanding, see how the student is learning the information and how it is being processed to allow the teacher to modify further instruction in the future.
- Student to teacher goals and self-confidence to develop determination to better themselves as a student.
- Final grades and marks for students will be a direct reflection of the end result of the students understanding of that specific unit of study and its outcomes and goals.

Assessment Process:

Practical (hands on)- Daily Participation, tool use, time management, attendance **30%**

Theory- Tool identification, safety, assignments **70%**

Overall percent out of **100**

Evaluation:

Evaluation will be done using rubrics and checklists as follows

1. Teacher evaluation (how instruction is taken and applied to daily projects)
2. Peer evaluation (teamwork capability)
3. Individual evaluation (growth as an individual student)