



Walker Career Center

Steering and Suspension Systems Syllabus

DOE# 7212



Course Description and Outline	Teacher Information and Student Supports
<p>This course will study driveline theory and in-car service procedures. Theory and overhaul procedures related to the driveshaft and axle assemblies for front and rear-wheel drive vehicles are included as well. Additionally, this course teaches theory, service and repair of automotive steering and suspension systems. It provides an overview of various mechanical, power, and electrical steering and suspension systems used on today's automobiles and will emphasize professional diagnosis and repair methods for steering and suspension systems.</p>	<p>Name: Dale Bupp Email: dbupp@warren.k12.in.us Phone: 317-532-6150 ext. 6180</p> <p>Course Supplies</p> <ul style="list-style-type: none">● Online Textbook● Work Shoes● Work Clothes <p>Additional Supports</p> <ul style="list-style-type: none">● Reteach and Enrichment activities in class every Thursday● Individual help by appointment when necessary

Journey of a Graduate Skills

Critical Thinking

- Identify tools used for steering and suspension repair.
- Diagnose steering and suspension concerns and determine worn/defective components.
- Diagnose abnormal tire pull and drifting/pulling concerns.
- Identify correct fluids for manual and automatic transmissions and drive axles.

Communication

- Describe basic power flow of the vehicle driveline.

Resilience

- Demonstrate proper shop safety practices while in the labs.
- Demonstrate safe shop practices and work habits while working with driveline equipment and lifts.
- Demonstrate usage of tools for driveline diagnosis and repair.

Collaboration

- Students will work together to perform various tasks in the shop.
- Students will work together to use and identify tools used to repair steering and suspension systems.

Content Knowledge

- Remove, inspect and service or replace front and rear wheel bearings.
- Inspect, rotate, mount and balance tires.
- Perform Pre-Alignment inspections
- Perform 4-wheel alignments.
- Inspect for sources of leaks.
- Remove and Replace drive axle bearings, axle shafts, seals, and wheel studs.
- Remove and Replace universal joints, yokes, and shafts.
- Remove and Replace drivelines from repair databases.
- Locate specifications for drivelines and repair databases.

Citizenship

- Understand, hybrid automotive systems and alternative fuels.
- Understand drive trains, manual transmissions, and auto SIR systems.

Grade Calculation

MSD Warren Township Scale

Grade	Percentage
A	92.5 - 100
A-	89.5 - 92.4
B+	86.5 - 89.4
B	82.5 - 86.4
B-	79.5 - 82.4
C+	76.5 - 79.4
C	72.5 - 76.4
C-	69.5 - 72.4
D+	66.5 - 69.4
D	62.5 - 66.4
D-	59.5 - 62.4
F	Below 59.5

Grading Policies

Semester Grade

Your semester grade will be calculated in the following way:

50% Assessments (Tests, Quizzes, Projects)
40% Labs, Homework and other assignments
10% Final Project

Warren Central Grading Policy

The high school grading policies will be explained here

Warren Central Homework Policy

The high school homework policies will be explained here.

Synergy Grades

Grades posted in Synergy reflect the students' academic performance in the course.

Credits/Pathways

CORE 40 Diploma

Course fulfills two credits of the elective requirement for the Core 40 diploma.

Academic/Technical Honors Diploma

Has potential to fulfill academic/technical honors diploma. - see counselor

CTE Graduation Pathway

Recommended – Intro to Transportation

Principles – Principles of Automotive Services

Course A – Brake Systems

Course B – Steering and Suspension

Capstone – Automotive Service Capstone

Types of Assignments and Assessments

Assignments

Assignments will include classwork, homework, labs, and bell work. These items are opportunities for students to practice the concepts learned in class.

Labs

Each unit will have one or more laboratory experiments. Labs are designed to demonstrate “real world” applications of the class concepts and help students develop a deeper understanding of the learning objectives.

Assessments

Tests/projects cover Indiana State Standards, and there will be one test per unit.

Quizzes may be given throughout a unit. There may or may not be a quiz for each unit.