



Home and Auto: Happy Home, Happy Car

Fairfield Ludlowe High School - Fairfield Warde High School

Semester

COURSE DESCRIPTION

This course is geared towards students who have not taken upper-level auto or woodshop courses. Classroom learning and hands-on lab work combine to provide students with the knowledge and skills needed as an owner of a home or automobile. Would you like to know how to perform basic repairs or modifications around your home? Would you like to acquire a basic understanding of the major systems in your car? This course could potentially save you thousands of dollars over your lifetime and empower you to become a more self-sufficient person. Learning activities may include installing a new electrical outlet, changing oil or spark plugs on a car, or fixing a leaky pipe.

COURSE OBJECTIVES

Students will be able to:

- demonstrate proper tool use.
- demonstrate proper safety skills.
- understand rough drawings and sketches.
- explain and use fractional dimensions.
- identify, use and maintain measuring, layout, and marking tools.
- measure accurately to a sixteenth of an inch.
- cut and join studs, joists, footers, and headers.
- identify and use non-ferrous metals based upon its material properties.
- identify the different types of framing systems and nail stud lumber correctly in a frame.
- read and interpret drawings and specifications to determine floor system requirements.
- identify floor and sill framing and support members.
- layout and construct a floor assembly.
- construct and install sills, floor joists, and subflooring.
- identify and describe the components of a steel wall and ceiling layout.
- layout and install a steel stud structural wall and non-structural wall with openings.
- name tools and material used in electrical work including, sizes of wire, outlets and fixtures.
- identify and describe building systems needed to complete a construction project.
- describe the function of each component of an electrical system.
- layout, install, and select typical electrical devices and systems.
- use problem solving and critical thinking skills to identify problems in a system and improve a situation or process.
- use plumbing tools safely.
- use mathematics to plan, layout, and install plumbing systems including: plumbing fittings, valves, pipe and hangers.
- identify basic specialized hand and power tools used in the plumbing trade.
- identify major plumbing systems of drain, waste, and vent.

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- hang pipe systems with appropriate pitch.
 - work with copper pipe.
 - work with PVC pipe.
 - incorporate appropriate building systems into a construction project.
 - identify and use ferrous metals based upon its material properties.
 - identify the different types of sheet rocking techniques.
 - read and interpret drawings and specifications to determine floor system requirements.
 - layout electrical and plumbing fixture on sheathing materials
 - construct and install walls, access for electrical outlets and plumbing fixture connections.
 - generate new and creative ideas to solve problems by brainstorming possible solutions.
 - demonstrate proper tool use.
 - demonstrate proper safety skills.
 - demonstrate several measuring techniques.
 - identify the basic components of a small engine and describe the function of each part.
 - describe 4-stroke cycle engine operation and Explain the function of each stroke.
 - describe 2-stroke cycle engine operation and Explain the function of each stroke.
 - explain the advantages and disadvantages of 2-cycle and 4-cycle engine.
 - demonstrate the proper and safe changing of a tire on a vehicle.
 - evaluate the condition of a tire and wheel assembly.
 - utilize the tire changer and wheel balancer to create a balanced wheel and tire assembly.
 - demonstrate how to evaluate and properly maintain tire pressure.
 - assess the condition of wheel bearing assemblies.
 - properly torque wheels on a vehicle and describe the importance of doing this correctly.

UNITS OF STUDY

Unit 1: Introduction and Safety in a construction environment

Unit 2: Measurement and layout tools

Unit 3: Framing and layout

Unit 4: Residential wiring and electronics

Unit 5: Residential Plumbing

Unit 6: Sheathing and Sheet Rock

Unit 7: Introduction and Safety in the Automobile Repair Lab

Unit 8: Engine construction and principles of Operation for 2-cycle and 4-cycle engines

Unit 9: Tires and wheels

COURSE POLICIES AND REQUIREMENTS

GRADING: Generally . . . See district policy ([Policy 6146.1AR](#))

Grading Communication

- Specific grading expectations and practices will be communicated to all students and families at the start of the school year via a consistent format.
- If students or parents have questions about grading practices, they should follow the district's established chain of command structure (see district website) with the first contact being to the teacher and then to the school administration.

- Buildings will send out reminders of the importance of checking students' grades in the Grading Portal with directions.
- Teachers will notify guardians when students fall into the F range after October 1st.

Grade Reporting

- For a processed piece or "chunked" assignments that are part of a larger task, feedback and the grade shall be shared before the next step in the process, so long as students have submitted their work at those checkpoints, on time.
- Grades for summative assessments shall be entered within 10 school days from the date of submission or the date it was due, whichever is later.
- Grades for formative assessments shall be entered within 5 school days from the date of submission or the date it was due, whichever is later, and prior to any subsequent assessment.

Guidelines for Late Work :

- Teachers will accept late work for both summative and formative tasks beyond the due date.
- Teachers will not accept late work beyond the deadline for late work. The deadline is defined as the next class period from the due date of the assignment or the alternative date that the teacher and student may agree upon depending on individual circumstances.
- Teachers may reduce the total points students can achieve as a penalty for late work up to the deadline. Students will earn a zero (0) if the assignment is not submitted or is submitted after the deadline.
- Late work only consists of assignments with an expected due date. Assessments, such as tests, quizzes and in class assignments, must be taken on the scheduled date except in cases of make-up assessments due to an excused absence.

REASSESSMENT GUIDELINES:

Eligibility of assessments	Teachers of the same course will determine which summative assessments are eligible. Students can select any part of a project to reassess. Reassessments may not be allowed one week before the end of a term.
Process	Students have two class periods in which to indicate they would like to take a reassessment. Teachers will make clear to students their preferred method for students to request reassessment (<i>e.g.</i> email or filling out a simple form/spreadsheet).
Frequency	Students will have the opportunity to reassess on two summatives per year but not more than one per term (quarter).
Assessment Format	Based on discussion between the student and teacher, students will revise portions of the original assessment in which they did not show proficiency.
Gradebook impact	Original and reassessment scores will be averaged in the gradebook.

MATERIALS:

- As provided by the course.

EXPECTATIONS OF STUDENTS:

- Be Tech and Learning Ready: Come prepared with all necessary materials, including your charged device and any required software.
- Prioritize Safety: Follow all safety guidelines and procedures, especially when working with tools, equipment, or hazardous materials.
- Participate Actively: Engage in class discussions, ask questions, and contribute to group projects. Actively participate in lab activities by following instructions, working collaboratively, and cleaning up your workspace.
- Respect the Digital Realm: Treat all digital resources and equipment with care. Avoid actions that could harm or disrupt the learning environment.
- Embrace Digital Citizenship: Use technology ethically and responsibly. Be mindful of copyright laws and online etiquette.

EXTRA HELP:

- Students should seek out extra help when needed. The teacher is available for extra help before and after school as well as during prep periods.