

COURSE SYLLABUS

INTRODUCTION TO AUTOMOTIVE TECHNOLOGY AUTO-010

Instructor: Will Bodnar

Email: wbodnar@psusd.us Phone: (760) 202-6455 x2611

REQUIRED TEXT

- Basic Automotive Service and Systems; 5th Ed. Chris Hadfield. Cengage Learning
- Classroom and Shop Manuals
- Electude Online Learning

COURSE DESCRIPTION

This course covers the fundamentals and basic knowledge of the automotive repair trade. It includes shop safety, hand tools, fasteners, shop math, and an overview of basic automotive systems.

STUDENT LEARNING OUTCOMES

1. Demonstrate knowledge of shop safety.
2. Demonstrate understanding of fundamental vehicle systems.
3. Perform a detailed vehicle inspection and note required basic vehicle services required.
4. Display teamwork.
5. Properly complete a vehicle repair order.
6. Research basic vehicle service information.
7. Identify and utilize basic service hand tools and equipment.

COURSE GRADING

The grade you will receive will be based on exams, homework, notebook, project, attendance and participation:

Project	10%
Lab Activities	20%
Homework	20%
Participation	15%
Exams	25%
Industry Web Training	10%

Grading is a straight scale, no curve.

EXAMS

Timed exams will be given for each main section during the course. A hands-on portion may or may not be given; be prepared to work in the shop for a hands-on portion of any exam.

LAB ACTIVITIES

No cell phones, backpacks, book bags, etc. are allowed in the shop during lab time. You must leave your backpack, etc. in the classroom. Safety glasses are required for lab activities.

The lab activities follow the National Automotive Technicians Education Foundation (NATEF) task list prescribed for this course. All required NATEF worksheets must be completed and turned in and the Lab Activities Tracking Sheets must be properly completed for lab activity credit. All Lab Activity Tracking Sheets must be signed off by the instructor immediately after the completion of a task or no credit will be given.

SAFETY

Safety is paramount! Never perform any unsafe shop practice. Never operate any equipment or use any tool unless you have gone over the safety practices related to that particular piece of equipment. Immediately inform the instructor or shop foreman of any unsafe conditions in the classroom, in the shop or with a vehicle. Do not allow your fellow students to perform any unsafe shop practices. Shop safety practices and material use will be reviewed prior to going into the shop. Points covered will include tool safety, chemicals, and potential hazards when working on a vehicle. **SAFETY VIOLATIONS WILL NOT BE TOLERATED.** Safety violations may result in your grade being lowered or removal from the lab in order to review safety protocol.

INDUSTRY WEB TRAINING

The program is certified by a number of national and industry organizations i.e. National Automotive Training Education Foundation (NATEF), National Coalition of Certification Centers (NC3), Mopar Career Automotive Program (CAP), Ford Automotive Career Exploration (ACE). These and other industry organizations may offer web training that will be required in this course.

Mopar (CAP) requirements for Auto-010

- 0012008 The Role of the Service Technician
- 0013408 Connecting with the Customer
- 0012208 Introduction to TechCONNECT
- 0012908 Technician Documentation Requirements
- 0012408 New Vehicle Preparation

Ford (ACE) requirements for Auto-010

- Dealership Operations (13 Courses)

Note- Students are required to complete either Mopar (CAP) or Ford (ACE) Industry Web Trainings.

PROFESSIONAL ATTITUDE & WORKMANSHIP

Be respectful of others and their vehicles. Always use floor mats, seat covers and fender covers. When servicing, troubleshooting or repairing a vehicle you are expected to make quality repairs returning the vehicle to factory specifications. Carefully and completely perform each task. This includes verifying that the repair has been made and the vehicle is safe to drive and in good working order, cleaning up your work area and returning any tools and equipment to their proper location(s).

TOOLS & EQUIPMENT

You are expected to treat tools and equipment with the highest level of professionalism. These items are expensive and must be used by many students each semester. Any abuse, misuse or lack of care for tools or equipment will result in the loss of use. Regarding tool & equipment usage, you are expected to:

- Use them in accordance with safety guidelines
- Do inventory of the tool box being used prior to use
- Use them only for designed purposes
- Return them to assigned location in shop, tool room or boxes at the end of each lab session (they are to be clean and properly put back in their case)
- Wash shop vehicles, as needed

SHOP CLOTHING

Your apparel should be professional. You are expected to wear appropriate shop clothing. When working in the shop, you **must** wear safety glasses, work boots/shoes, and a shop type shirt and shorts/pants. For safety, all jewelry must be removed and long hair must be tied back.

HOMEWORK/RESEARCH PROJECT

Homework will be assigned, as needed. The project for this course will be a research project. **The project counts as 10% of your grade.**

AGENDA

For each chapter indicated below you are required to:

Read the chapter material from the classroom and shop manuals, including ALL questions from the classroom manual & shop manual.

- RO's, SP2, instructor-led demos
- Automotive Systems and Operations
- The Automotive Business
- Automotive Tools and Equipment
- Measurements and Precision Measuring Devices
- **Exam 1**- Lab activities
- Fasteners
- Automotive Bearings and Sealants
- Automobile Theories of Operation
- Powertrain System Operation
- **Exam 2**- Lab activities
- Electrical System and Components
- Brakes
- Suspension and Steering
- Transmission and Drivelines
- Auxiliary Systems and Climate Control.
- **Final Exam**

***Agenda is subject to change as deemed necessary by the instructor.**