

COURSE OUTLINE

Developed By: B. Hughes July, 07

DEPARTMENT:	Automotive Technology
CURRICULUM:	General Service Technician Program
COURSE TITLE:	Introduction to Automotive Technology I
COURSE NUMBER:	MVM 100
TYPE OF COURSE:	Vocational Preparatory
COURSE LENGTH:	Normally 3 weeks
CREDIT HOURS:	4
LECTURE HOURS:	15
LAB HOURS:	60
CLASS SIZE:	20
PREREQUISITES:	Basic math skills, and 9 <sup>th</sup> grade or higher reading level (as evidence by appropriate placement scores), and/or instructor's permission.

COURSE DESCRIPTION:

Contents include: safety and MSDS; tools and equipment; looking for information; repair orders, repair manuals and parts and time estimating guides; component identification; component theory and fasteners. In addition, the function and construction of each component, as well as their diagnosis and service procedures will be covered. Instruction in safety, environmental awareness, human relations and leadership are taught as an integral part of this unit of study.

STUDENT LEARNING OUTCOMES ADDRESSED:

1. Critical Thinking – Use problem solving skills to diagnose and repair various automotive problems. (SLO 4.1)
2. Technology - Proper use of tools and equipment used in the automotive trade. (SLO 5.1)

**PROGRAM OUTCOMES:**

1. Inspect, diagnose, disassemble, repair, replace and service each of the major systems in various types of vehicles. (SLO 4.1)
2. Locate sources, make parts write-ups, calculate costs and explain repair or service. (SLO 2.1, 2.2 & 7.1)
3. Handle customer needs, complaints, questions and special challenges. (SLO 3.1 & 3.2)
4. Access and apply manufacturer's specifications in repair and replacement. (SLO 7.1)
5. Work safely and responsibly within all shop safety and environmental guidelines and standards. (SLO 6.4 & 6.5)
6. Demonstrate ability to pass the ASE test required for NATEF certification. (SLO 1.1, 1.2 & 7.1)
7. Communicate and document service records. (SLO 2.1)
8. Compute costs, time and measurements. (SLO 2.1, 2.2 & 7.1)
9. Work independently and in groups to service, repair, test and maintain vehicles. (SLO 3.1 & 6.3)
10. Use technology to test vehicles. (SLO 5.1)
11. Work with accuracy, dependability, proficiency and in a timely manner, when servicing equipment. (SLO 6.3 & 6.4)

**GENERAL COURSE OBJECTIVES:**

At the end of the course the student will:

1. Explain and demonstrate safety as it applies to the automotive industry.
2. Explain the use of MSDS materials.
3. Name and use automotive tools and equipment.
4. Name and understand the theory of various components and parts of current automobiles and light trucks.
5. Demonstrate how to use repair orders as well as repair and flat-rate manuals.
6. Demonstrate the ability to recognize and use fasteners properly.

**TOPICAL OUTLINE:**

**APPROX. HOURS**

I. Safety and MSDS	10
II. Tools and equipment	10
III. Looking for information.	10
IV. Repair orders, repair manuals and parts and time estimating guides	10
V. Component and part identification	10
VI. Component theory	15
VII. Fasteners	<u>10</u>
Total	75