

COURSE OUTLINE

Revised By: B. Hughes July, 2007

DEPARTMENT:	Automotive Technology
CURRICULUM:	General Service Technician Program
COURSE TITLE:	Tires and Wheel Alignment
COURSE NUMBER:	AUT 124
TYPE OF COURSE:	Vocational Preparatory
COURSE LENGTH:	Normally 3 weeks
CREDIT HOURS:	4
LECTURE HOURS:	15 hours
LAB HOURS:	60 hours
CLASS SIZE:	20 maximum
PREREQUISITES:	MVM 100 (Introduction to Automotive Technology I), MVM 102 (Introduction to Automotive Technology II), basic math skills, and 9 th grade or higher reading level (as evidence by appropriate placement test scores), and/or instructor permission.

COURSE DESCRIPTION:

Contents include: tire, wheel and alignment theory, diagnosing tire, wheel and alignment problems, tire and wheel design and construction, removal, repair and installation of tires and wheels and instruction in how to perform wheel alignments. In addition the function and construction of each component, and 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.

STUDENT LEARNING OUTCOMES ADDRESSED:

1. Critical Thinking – Use problem solving skills to diagnose and repair tire and wheel alignment problems. (SLO 4.1)
2. Technology - Proper use and care of automotive tire and wheel alignment tools and equipment. (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 importance of tire and wheel alignment.
3. Explain, identify, and service different kinds of tires and wheels found on automobiles and light trucks.
4. Inspect and diagnose suspension and steering components.
5. Perform wheel alignment and explain procedures.

TOPICAL OUTLINE:

APPROX. HOURS

I. Chassis construction, fasteners, and safety	5
II. Tires and wheels diagnosis and service	25
III. Alignment diagnosis and service	<u>45</u>
Total	75