

## TRN 110 Introduction to Transportation Technology

### COURSE DESCRIPTION:

Prerequisites: None

Corequisites: None

This course covers workplace safety, hazardous materials, environmental regulations, hand tools, service information, basic concepts, vehicle systems, and common transportation industry terminology. Topics include familiarization with major vehicle systems, proper use of various hand and power tools, material safety data sheets, and personal protective equipment. Upon completion, students should be able to demonstrate appropriate safety procedures, identify and use basic shop tools, and describe government regulations regarding transportation repair facilities.

Course Hours per Week: Class, 1. Lab, 2. Semester Hours 2 Credit,

### LEARNING OUTCOME

Upon completing requirements for this course, the student will be able to (Statewide outcomes)



- E. Dial Indicators
  - F. Telescoping and small hole gauges
  - G. Torque Wrenches
- VII. Flaring Tools
- A. Single lap flaring
  - B. Double lap flaring
  - C. ISO
- VIII. Threaded fasteners
- A. Bolt strength ID—inch system
  - B. Bolt strength ID—metric system
  - C. Threads—English ID
    - a. Unified National Course (UNC or NC)
    - b. Unified National Fine (UNF or NF)
    - c. Unified National Extrafine (UNEF or NEF)
    - d. Unified National Pipe Threads (UNPT or NPT)
  - D. Threads—Metric ID
    - a. System International d'Unites (SI) or International System of Units
    - b. International standards of organization (ISO)
  - E. Bolt size
  - F. Thread pitch
  - G. Tensile Strength
- IX. Welding
- A. OxyAcetylene Basics
    - a. Cutting
    - b. Brazing
    - c. Welding
  - B. Arc Welding
    - a. Setup and electrode selection
    - b. Joints—Lap and butt
- X. Chemicals
- A. Penetrants
  - B. Lubricants
  - C. Sealants
    - a. Aerobic (RTV)
    - b. Anaerobic
    - c. Thread
  - D. Cleaners
- XI. Service Information Resources
- A. Computerbased service information
  - B. Manuals
  - C. Technical Service Bulletins
  - D. Parts and Labor Guide

XII.

- d. Tires and Wheels
- XIV. Automotive Shop Operations
  - A. Dealership

- a. Pay Plans
- b. Benefits
- c. Functional Layout
- d. Procedures
- e. Tc 0 P06uMC n0 1 Tf (002 Tw -6.217 -1.402 Td (e.)Tj /Tn(c)-4.9 (e)-6 (d)-4.7 (li.3m.7931 T