

Date Prepared: 01/08/05

COURSE OUTLINE

New Revised

Effective Date: 6/1/88

1. **COURSE PREFIX NUMBER:** AUT 141 **CREDIT HOURS:** 4
2. **COURSE TITLE:** Power Train I
3. **PREREQUISITES:**
4. **COURSE DESCRIPTION:** Presents operation, design, construction and repair of power train components, standard and automatic transmission. Includes clutches, propeller shaft, universal joints, rear axle assemblies, fluid couplings, torque converters as well as 2, 3, and 4 speed standard, overdrive and automatic transmissions. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.
5. **CONTENT:** (Major Headings)
 - a. Power train components
 - b. Clutches
 - c. Clutch service
 - d. Manual transmissions
 - e. Overdrives
 - f. Drive lines
 - g. Rear axles & differentials
6. **GENERAL COURSE OBJECTIVES:**

Upon successful completion of the course, the student will have

 - a. Developed a thorough understanding of the purpose and operating principles of the Automotive Power Transmissions systems
 - b. Developed a working knowledge of assemblies, sub assemblies and component parts of the conventional transmission power train
 - c. Developed knowledge of defects and their cause and effects upon the automobiles operation
 - d. Developed a working knowledge of trouble-shooting methods and tools and equipment used in Power Train testing and repair
 - e. Learned to analyze Power Train defects and determine the extent of repairs and/or adjustments necessary to correct