Print Date: 7/14/14

Course Objectives/Course Outline
Spokane Community College

Course Title: Theory Auto of Transmissions/Transaxles
Prefix and Course Number: AUTO 113

Course Learning Outcomes:
By the end of this course, a student should be able to:

- Identify and define the purpose, types of applications, and operations methods pertaining to transmission and transaxles, differential, drive line, and constant velocity joints.

Course Outline:

I. Transmission Diagnosis and Repair
   A. Diagnose transmission noise, hard shifting, jumping out of gear, and fluid leakage problems;
      determine needed repairs.
   B. Inspect, adjust, and replace transmission shift linkages, brackets, bushings, cables, pivots, and levers.
   C. Inspect, replace and align power train mounts
   D. Inspect and replace transmission gaskets, sseals, and sealants; inspect sealing surfaces.
   E. Remove and reinstall transmission
   F. Disassemble, clean, and reassemble transmission components
   G. Inspect, adjust, and reinstall transmission shift cover, forks, grommets, levers, shafts, sleeves, detent mechanisms, interlocks, and springs
   H. Inspect and reinstall input (clutch) shaft and bearings.
   I. Inspect and reinstall main shaft, gears, thrust washers, bearings, and retainers.
   J. Inspect and reinstall synchronizer hub, sleeve, keys (inserts), springs, and blocking rings

II. Clutches
   A. Linkage
   B. Cables
   C. Automatic Adjuster Mechanisms
   D. Hydraulic Clutch
   1. Slave
   2. Master
   E. Pilot Bearings
   F. Flywheel
   G. Bell Housing
   H. Transmission Case
   I. flywheel to block Runout
   J. Crankshaft End Play
   K. Clutch Bell Housing

III. Drive shafts and Universal Joints
   A. Front Wheel Drive
      1. constant velocity universal joint
   B. Rear Wheel Drive

IV. Rear Axles
   A. Ring and Pinion Gears
   B. Differential Case
   C. Limited Slip differential
      1. clutch components

2. rotating torque