TRANSPORTATION SERVICES-AUTOMOTIVE (TSTA)

TSTA 245 Manual Drive Trains 4 Credits
Standard repair practices for drive train components to include: clutch, transmission, transaxle, drive axle, driveline, c-v and R & R procedures.

TSTA 247 Automatic Drive Train Service 4 Credits
Standard repair practices for automatic drive trains to include: diagnosis, testing, R & R, and servicing of transaxles/rear wheel drive transmissions.
Prerequisites: TSTC 100 and TSTC 101.

TSTA 265 Engine Control Services 3 Credits
Repair and diagnosis of engine control systems with an emphasis on scan tool diagnosis and live hands on repair of systems.
Prerequisites: TSTC 100, TSTC 101, TSTC 130, and TSTC 160.

TSTA 267 Body Controls 3 Credits
Theory, repair, and diagnosis of body accessories including air bags, electronic monitors, power seats, windows and wipers.
Prerequisites: TSTC 100, TSTC 130, and TSTC 160.

TSTA 275 Alignment and Suspension Service 3 Credits
Introduction to anti-lock brake systems to include: ABS types and operation, diagnostics, traction control, stability control, regenerative breaking and active braking systems.

TSTA 286 Hybrid Vehicles 2 Credits
Introduction to hybrid technology in the transportation industry including: power and transmission designs, batteries, plug-in technology, control systems, safety, associated systems, diagnostics and repair of the modern hybrid vehicle.
Prerequisites: TSTC 100, TSTC 130, and TSTC 160.

TSTA 287 Engine Performance and Emissions 3 Credits
Diagnosis and repair of engine performance and emissions-related failures. Emphasis on strategy based diagnostics through the use of exhaust gas analysis.
Prerequisites: TSTC 100, TSTC 130, TSTC 160, and TSTA 265.

TSTA 289 Alternative Fueled Vehicles 2 Credits
Introduction to the operational theory and principles, safety and repair of hybrid, fuel cell and hydrocarbon and alcohol-based alternative fueled vehicles. Emphasis on industry standard safety and repair practices.
Prerequisites: TSTC 130 and TSTC 160.