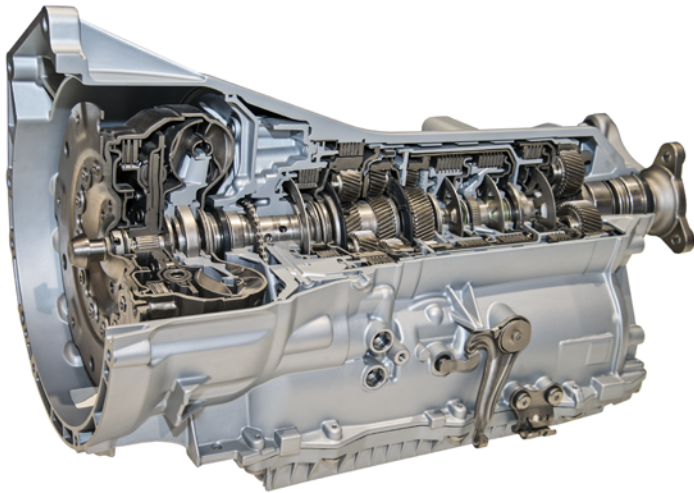


TRANSMISSION FUNDAMENTALS: AUTOMATIC

eLearning courses designed to increase productivity and profits



Learning made Simple, Visual, and Interactive

Transmission Fundamentals: Automatic introduces learners to the basic components, concepts, and general terminology associated with automatic transmissions. The information critical to automatic transmission systems is brought to life in this course using realistic 3D models, helpful animations, and interactive quizzes. The material in this course is beneficial for both those who are experienced and practiced in automatic transmissions and related concepts, and those who are new to the field.

Credit Hours **2**

Learning Objectives

- Understand how the concepts torque, power, and gear ratio apply to transmissions.
- Recall some of the primary components of an automatic transmission.
- Recognize elements of the torque converter.
- Understand the functioning of the planetary gear set.
- Recall the elements associated with clutch plates.
- Relate the common failure modes associated with the automatic transmission.

I. Introduction to Automatic Transmissions

- **Parts and Terminology**
- **Transmission Related Concepts**
 - o Power
 - o Torque
 - o Gear Types - Spur Gear
 - o Gear Types - Bevel Gear
 - o Gear Types - Planetary Gear Set
 - o Gear Types - Worm Gear
 - o Gear Types - Helical Gear
 - o Gear Types - Herringbone Gear

II. Transmission Components

- **Transmission Case**
- **Torque Converter**
- **Clutch Plates**
- **Planetary Gear Sets**
- **Valve Body**
- **Differential**

III. Measured Attributes

- **Newer Developments**
 - o Dual Clutch Transmission (DCT)
 - o Continuously Variable Transmission (CVT)
 - o Hybrid Transmissions
- **Failure Modes**
 - o Low Fluid
 - o Damaged Clutch Plates
 - o Faulty Sensors

