

Level 1: Fundamentals of Mechanical Systems

The driving force behind most industrial applications is Mechanical Systems. Gears, drives, bearings, pulleys, and more are found in nearly everything that moves. The Mechanical Systems course covers the installation, use, maintenance, and troubleshooting of mechanical drive components and systems. The curriculum is divided into various topics which deal with the components encountered in industry. The learning is based on practical, hands-on tasks to build know-how in operating and maintaining these vital systems

Course Topics

- Belt drives
- Chain drives
- Gear drives

Core Competencies

- Proper safety protocols associated with performing work on mechanical systems
- Understanding of belt drives, and their roles in industrial applications.
- Proper installation of belt drives and the importance of following specific protocols.
- Identification of the main components of the belt drive systems in industrial installations.
- Understanding of chain drives, and their roles in industrial applications.
- Proper installation of chain drives and the importance of following specific protocols.
- Identification of the main components of chain drive systems in industrial installations.
- Understanding of gear drives, and their roles in industrial applications.
- Proper installation of gear drives and the importance of following specific protocols.
- Identification of the main components of gear drive systems in industrial installations.

Equipment

Mechanical Training System

- Modular system to fit different training needs and budgets
- Heavy-duty equipment with industrial components
- Fully illustrated job sheets direct students to complete tasks safely and efficiently
- Lockout/tagout on the disconnecting switch and safety panels ensure student safety
- Working space can be increased by adding a slave base unit
- Universal base unit can be mounted on a regular table as well as optional benches
- Quality industrial components are mounted on panels for storage and inventory control
- Cost-effective solution with comprehensive curriculum
- Provides hands-on, safe mechanical training



The bench system will be utilized in level 2 as well.

