

## Pump Maintenance

This five-day course is designed to describe pump design, operation, and theory. Various types of pumps are discussed. Hands-on exercises are performed by all participants to reinforce the concepts taught in the classroom. In addition, a discussion of pump maintenance on rotary, reciprocating, and centrifugal pumps will give the participants a complete understanding of typical pump problems and solutions.

### I. Pump Design

- Standards
- Applications
- Pump Classifications

### II. Pump Operation and Theory

- Centrifugal Pumps
- Design Aspects
- Pump Laws
- Positive Displacement Pumps
- Pump Performance Comparisons
- Special Purpose Pumps
- Pump Characteristic Curves
- Performance Testing Centrifugal Pumps

### III. Rotary Pump Maintenance

- Pump Performance
- Pump Tests
- Rotary Pump Problems
- Rotary Pump Maintenance

### IV. Reciprocating Pump Maintenance

- Steam Pumps
- Power Pumps
- Metering Pumps
- Axial and Radial-Piston Pumps
- Hydraulic Pump Maintenance

### V. Centrifugal Pump Maintenance and Troubleshooting

- Factors Affecting Performance
- Troubleshooting
- Inspecting Components for Wear