About the Course

This is an intensive course providing a comprehensive overview of pumps and compressor systems. The focus is on equipment selection; type, unit, and station configuration; and integration of these units in the process scheme and control strategy in upstream and midstream oil and gas facilities. The material of the course is applicable to field production facilities, pipelines, gas plants, and offshore systems.

"The broad overviews of different equipment types were good." - Field Engineer, United States

"I like everything in this course. Nothing to improve; the content is excellent." - Participant, Kuwait

Target Audience

Engineers, senior technicians, and system operators designing, operating, and maintaining pump and compressor systems in oil and gas facilities.

You Will Learn

Participants will learn how to:

- Select the appropriate integrated pump and compressors units (drivers, pumps, compressors, and auxiliary systems)
- Integrate the pump or compressor units with the upstream and downstream piping and process equipment
- Evaluate pump and compressor units and their drivers in multiple train configurations, parallel and series
- Identify the key local and remote control elements of pumps and compressors as well as their drivers
- Define the major life-cycle events, such as changes in flows, fluid composition, and operating conditions that can affect equipment selection and operating strategies
- Assess the key pump hydraulics and compressor thermodynamics, and their effect on selection and operations
- Identify significant operating conditioning monitoring parameters and troubleshooting techniques

Course Content

- Types of pumps, compressors, and drivers, and their common applications and range of operations
- Evaluation and selection of pumps and compressors, and their drivers for long-term efficient operations
- Unit and station configuration including multiple trains in series and/or parallel operations
- Integration with upstream and downstream process equipment, local and remote control systems, and facilities utilities
- Key auxiliary systems including monitoring equipment, heat exchangers, lube and seal systems, and fuel/power systems
- Major design, installation, operating, troubleshooting, and maintenance considerations