

**Course Overview:**

After completing this course, trainees should be able to describe the basic components and common types of single-acting cylinders and double-acting cylinders. They should also be able to describe the basic components and operation of common types of vane motors, gear motors, piston motors, and partial rotation actuators.

**Course Objective:**

Explain the basic principles of hydraulic system operation  
Identify the basic components of a typical hydraulic system  
Describe the general operation of a typical hydraulic system  
Describe the basic components and operation of Fracturing Applications  
Describe the basic components and operation of a single-acting spring return cylinder

**Course Outline:**

- Introduction to the fracturing process and mechanics
- Practical fracture design
- Fracturing fluid additives and proppant
- Strengths and limitations of fracturing applications
- Production increase
- Factors involved in field implementation
- Acid fracturing vs. proppant fracturing
- Frac packs
- Waterfracs
- Fracturing in horizontal wells
- QA/QC of fracturing treatments
- Evaluation of fracturing treatment success

**Who Should Attend:**

Mechanical, Operation, Production, and Maintenance Engineers Senior Technicians should benefit from this course. Also Senior Technicians should update and refresh their knowledge by attending this course.

**Training Language:**

EN / AR

**Training Methodology:**

- Presentation & Slides
- Audio Visual Aids
- Interactive Discussion
- Participatory Exercise
- Action Learning
- Class Activities
- Case Studies
- Workshops
- Simulation