



Hydraulic Fracturing Applications - HFU

COURSE

About the Course

The course reviews the basic concepts of hydraulic fracturing and the broad applications of the technique. Fracturing technology benefits and limitations in all types of sandstone and carbonate reservoirs are explained. It considers the critical components of the fracturing process, and it expands on the steps and data input requirements to effectively select stimulation candidates, plan, design, and implement hydraulic fracturing treatments. The use of modeling as an important tool to design and analyze treatments, how it can be effectively used in practical applications, and its limitations are explained. In addition to the technical presentation, the course contains many practical exercises and class problems based on case histories.

"Enjoyed coverage of current events and trends - slickwater fracs, shales, etc." - Engineering Manager

"I liked that we learned in detail about surface treating pressure and all 5 of its components. It will now be easier to interrupt frac post job reports." - Completions Engineer

Target Audience

Production, reservoir, and drilling engineers, and others who have a basic understanding of hydraulic fracturing and need to enhance their knowledge about fracturing concepts and applications.

You Will Learn

Participants will learn how to:

- Identify the data requirements and steps that have to be implemented to properly design hydraulic fracturing treatments
- Evaluate and select stimulation candidates, and apply hydraulic fracturing concepts to various types of reservoir conditions to optimize well productivity
- Recognize opportunities for substantial production improvements by application of effective hydraulic fracturing treatments
- Collect pertinent well data and information needed to plan, design, implement, and evaluate fracturing treatments for the most common types of reservoirs
- Realize the strengths and limitations of hydraulic fracturing theory as it relates to field applications
- Become an active participant in the different phases of typical hydraulic fracturing treatments

Course Content

- Introduction to the fracturing process and mechanics
- Fracture design concepts and methodologies
- Fracturing fluid additives and proppant
- Strengths and limitations of fracturing applications
- Production increase
- Factors involved in field implementation
- Acid vs. proppant fracturing
- Frac packing concepts
- Waterfracing concepts
- Horizontal well fracturing
- QA/QC of fracturing treatments
- Methods to evaluate fracturing treatment success

Product Details

Categories: [Upstream](#)

Disciplines: [Production and Completions Engineering](#) [Unconventional Resources](#)

Levels: [Intermediate](#)

Product Type: [Course](#)

Formats Available: [In-Classroom](#) [Virtual](#)

Instructors: [PetroSkills Specialist](#) [Steve Metcalf](#)