



Well Completions Fundamentals

MODULE

About the Skill Module

This skill module covers five sections, including well completion equipment, packers, landing nipple and lock mandrel systems, safety valves, and circulation devices.

[See example online learning module](#)

Target Audience

Graduates or engineers with experience, engaged in drilling operations, production operations, workover, and completions; petroleum engineering in both the service and operating sectors.

You Will Learn

Participants will learn how to:

- Identify the functionality linked to downhole equipment
- Recognize the full suite of equipment to be further covered in this module
- Describe the difference between wellheads and Christmas trees
- Describe the functions of a wellhead
- Analyze a video of a wellhead, identifying the various annuli and various seals
- Describe the function of a Christmas tree
- Analyze a video of a Christmas tree video, and identify the various valves and their functions
- Identify the appropriate API standards to reference
- Identify the various characteristics of a tubing string, including weight/internal diameter, outside diameter, metallurgy, and associated properties
- Describe the main differences between API connections and premium connections
- Explain the results from a torque/turn chart
- Describe tubing and connection selection criteria
- Identify the primary function of a packer
- Identify the significant mechanical components of packers
- Describe one method of categorizing packers
- Describe several packer setting methods
- Explain the main options for connecting the tubing to the packer
- Describe the physical basis for tubing length changes
- Calculate a simple tubing length change

- Describe the components of a landing nipple and lock mandrel system and explain why this system is used
- Identify the primary function of a safety valve
- Differentiate between a surface controlled and a subsurface controlled valve
- Describe the conditions where a safety valve should be placed in the well
- Describe the operation of a typical sliding side door
- Explain reasons for including a circulating device
- Differentiate between circulating points for liquid and those for gas
- Describe common completion accessories, including wireline re-entry guides, blast joints, and flow couplings
- Demonstrate uptake of the skill modules that have been covered up to this point
- Identify areas requiring review
- Design a completion, incorporating equipment, reservoir data, fluid data, etc.

Product Details

Categories: Upstream

Disciplines: Production and Completions Engineering

Levels: Foundation

Product Type: Individual Skill Module

Format: On-Demand

Duration: 9 hours (approx.)

\$795.00