



## Electrical Submersible Pumps - ESP

### COURSE

#### About the Course

ESPs have advantages over some of the other artificial lift methods because they can generate a higher formation drawdown and achieve a higher rate. However, their performance is impacted by gas interference and formation sand production, both of which have to be addressed when setting ESPs in production wells. This course will familiarize the user with the ESP system and its optimum application. All components will be described in detail. The course uses computer software for numerous design and analysis class problems. Some films will be shown to illustrate installation, operation, and removal of failed equipment, new products, and best practices. Discussion is encouraged concerning experiences of successes and failures. Comparisons are made to other lift methods to help facilitate the optimum method selection.

Problems related to solids production, gas handling and viscosity are addressed. Best practices are stressed throughout so that a long lasting system can be designed to achieve optimum well performance. SCADA controls and VSDs are discussed. Participants will learn the function of each component, and important considerations about installation, operation, and removal of failed equipment. Participants will be able to evaluate the design of a system for current and future conditions, analyze an installed system, and review multiple operational aspects of the ESP system. Although the course uses industry computer software for design and analysis, much of the material is devoted to best practices, which is useful to both engineers and technicians. Deviation is not such a problem with ESPs but is discussed nonetheless. The common practice of using ESPs in unconventional wells with sharply declining production rates is also discussed.

#### Target Audience

Engineers and field technicians who are responsible for the selection, operation, and maintenance and monitoring of ESP systems.

#### You Will Learn

Participants will learn how to:

- Optimize well productivity using ESP systems
- Identify the function of each component of the ESP system, and to select optional components and additions
- Design and analyze a system using computer software
- Apply best practices to extend system life
- Optimize system power efficiency

- Manage gas, solids, corrosion, and viscosity associated with produced fluids
- Determine if an ESP system is the optimum artificial lift system for a given producer
- Monitor system performance using the different types of sensors available

## Course Content

- Introduction to artificial lift and electrical submersible pumping
- Reservoir and production considerations for ESP installation
- Description of every component comprising the electrical submersible system
- Installation considerations and important best practices to apply
- Design of an ESP system to fit current and future well conditions

## Product Details

Categories: [Upstream](#)

Disciplines: [Production and Completions Engineering](#)

Levels: [Intermediate](#)

Product Type: [Course](#)

Formats Available: [In-Classroom](#)

Instructors: [PetroSkills Specialist](#) [James Lea](#) [Kenneth Saveth](#)

## In-Classroom Format

21 Oct '24 25 Oct '24 - | Course | In-Classroom (in Midland)

\$4,750.00

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