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Global Learning for Operational Leaders

OIL AND GAS | OG-021

Efficient Gas Processing and Conditioning for Field Engineers

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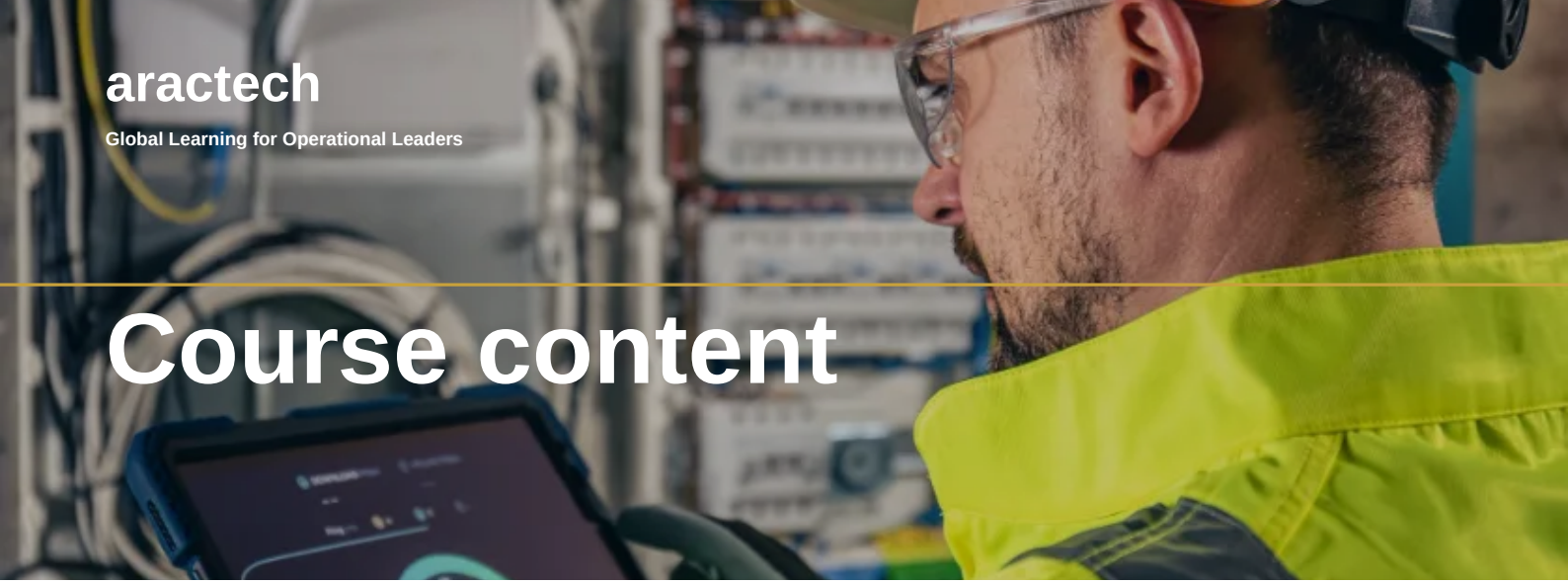

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Course content

Why Attend

Efficient gas processing is essential for ensuring product quality, operational reliability, regulatory compliance, and safe field operations. This course equips participants with the knowledge and practical skills required to understand natural gas processing systems, gas conditioning technologies, separation processes, dehydration, sweetening, troubleshooting, and operational best practices for modern gas processing facilities.

Course Methodology

• The course combines technical presentations, process simulations, engineering calculations, case studies, practical workshops, troubleshooting exercises, and real-world gas processing scenarios to strengthen participants' operational and technical capabilities.

Course Objectives

• Understand the principles of natural gas processing and conditioning

• Operate and optimize gas separation and treatment systems

• Apply gas dehydration and sweetening technologies effectively

• Identify and resolve common operational challenges in gas processing plants

• Improve plant efficiency, reliability, and product quality

• Apply safety, environmental, and risk management principles in gas facilities

Target Audience

• Field engineers

• Process engineers

• Production engineers

• Operations supervisors

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Course outline

Detailed course outline

Day-by-day outline for Efficient Gas Processing and Conditioning for Field Engineers.

Day 1 - Fundamentals of Natural Gas Processing

• Understanding natural gas production, processing, and field operations

• Reviewing the physical and chemical properties of natural gas

• Understanding gas production systems and multiphase flow behavior

• Identifying common gas contaminants and their operational impacts

• Evaluating gas quality specifications, heating value, and commercial requirements

• Reviewing natural gas liquids, liquefied petroleum gas, and gas-to-liquids processes

Day 2 - Gas Separation Systems and Process Instrumentation

• Understanding the principles of gas-liquid separation in processing facilities

• Reviewing separator configurations and selection criteria for field applications

• Evaluating key operating parameters affecting separator performance

• Understanding instrumentation, control systems, and process monitoring techniques

• Applying control valves, actuators, and measurement systems in gas processing operations

• Integrating automation and process control into daily plant operations

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Day 3 - Gas Contaminant Management and Hydrate Prevention

• Understanding mercury contamination sources and operational risks

• Reviewing technologies for mercury removal and process protection

• Understanding hydrate formation mechanisms and operating conditions

• Applying hydrate prevention and mitigation strategies during gas processing

• Estimating water content and controlling hydrocarbon dew points

• Reviewing the principles and applications of gas dehydration technologies

Day 4 - Gas Dehydration and Natural Gas Liquids Recovery

• Understanding glycol dehydration processes and system operation

• Reviewing the function of major dehydration equipment and process flow arrangements

• Identifying operating conditions that affect dehydration performance and efficiency

• Troubleshooting common operational problems within glycol dehydration units

• Understanding heavy hydrocarbon recovery and refrigeration processes

• Reviewing condensate stabilization techniques and cryogenic processing fundamentals

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Day 5 - Gas Sweetening, Troubleshooting, and Operational Excellence

• Understanding acid gas removal principles and gas quality requirements

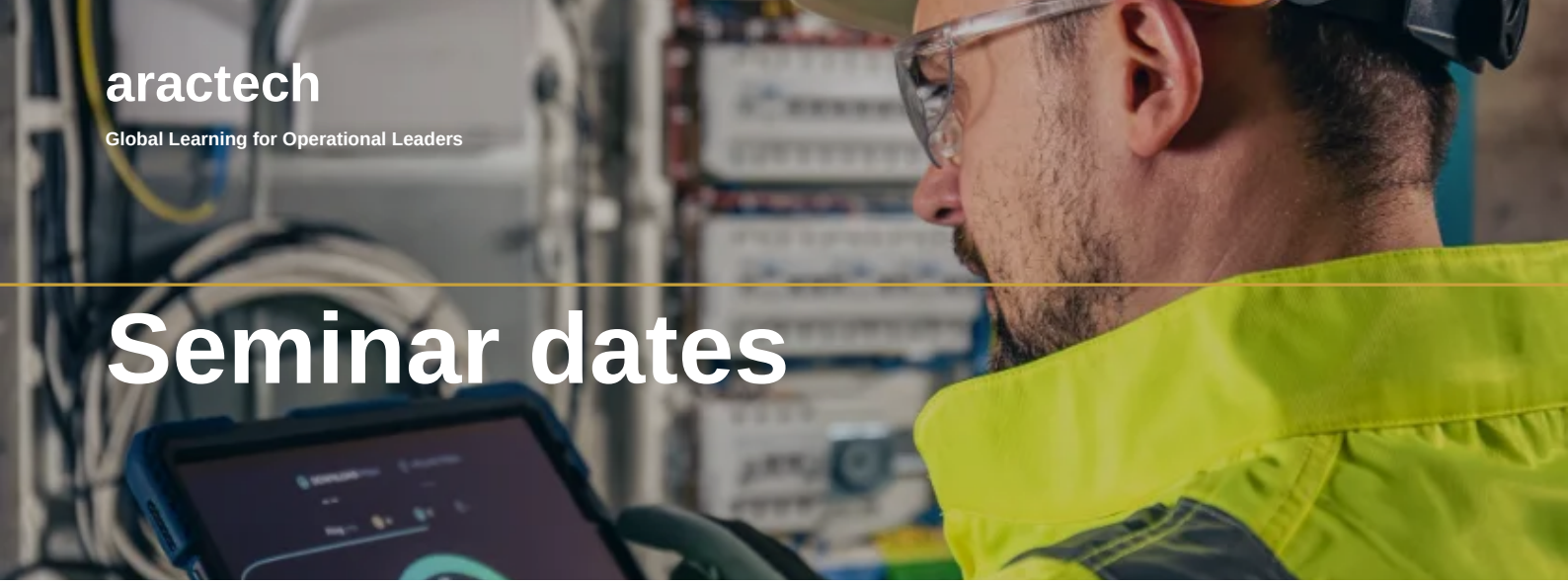
• Reviewing amine treating systems, membrane technologies, and gas sweetening processes

• Applying structured troubleshooting techniques to gas processing operations

• Managing abnormal operating conditions and process upsets effectively

• Understanding operational risk management within gas processing facilities

• Evaluating the impact of maintenance activities on plant reliability and performance



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Seminar dates

Available seminar dates

Live dates and pricing for Efficient Gas Processing and Conditioning for Field Engineers generated from the course details page.

Date	Location	Format	Fee