SCANDINAVIAN ACADEMY
For Training and Development

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Course: Gas Production Engineering GPO

Code	City	Hotel	Start	End	Price	Language - Hours
570	Rome (Italy)	Hotel Meeting Room	2025-05-26	2025-05-30	5950 €	En - 25

About this course

Learn the latest methods for calculating gas well performance from reservoir to sales. Reservoir perfomance covers the fundamentals of reservoir gas flow and details the best methods for testing wells, according to the time and money available. Reserve calculations and diagnostic testing from production data are covered. The importance of flow regime and non-darcy flow on test deisgn and interpretation is emphasized for new wells and for the possibility of improving the performance of older wells. Also discussed are performances of tight formations, horizontal wells, fractured wells, and methods for estimating gas reserves. Participants will learn to calculate and determine the effect of each system component on total well performance, which permits optimum sizing of tubing, flowlines, separators, and compressors. Problem-solving sessions, using computers, wil allow participants to evaulate field problems. Participants receive free software at the end of the coures.

Participants will learn how to:

- Apply proven techniques to field problems which increase profitability
- Calculate gas well performance, from the reservoir to the sales line
- Optimize gas well production
- Relate reservoir and well performance to time
- Predict when a well will die due to liquid loading

Who should attend

production, reservoir, and facilities engineers and others involved in gas production,

transportation, and storage including field supervisors

Daily outline

Day one

- **Gas properties**
    - Real gas behavior equations of state
    - Impurities, mixtures
    - Phase behavior dew point
    - Retrograde behavior
    - Flash calculations
    - Classifying gas reservoirs
- **Reservoir performance**
    - Gas well testing
    - Flow after flow
    - Isochronal
    - Stabilized inflow performance
    - Turbulence and skin effects
    - Perforation effects
    - Tight well analysis
    - Horizontal wells
    - Hydraulically fractured wells

Day two

- Reserve calculations:

- p/z plots
- Energy plots
- Water influx
- Abnormal pressure effect
- Diagnostic testing based on production data
- Pressure loss
- Tubing
- Flowlines
- Chokes
- Safety valves
- Effects of liquids-liquid loading
- Liquid removal methods
- Multiphase flow correlations
- Erosional velocity
- Flow in pipes and restrictions

Day three

- Compression:
- Types of compressors
- Compressor selection
- Reciprocating and centrifugal
- Effects of variables
- Capacity and horsepower
- Tubing and flowline size effects
- Perforating effects
- Relating deliverability to time
- Evaluating compressor installations
- Analyzing injection wells
- Total system analysis:

Day four

- Flow measuring:
- Orifice metering
- Design
- Accuracy
- Troubleshooting
- Other metering methods
- Reservoir types
- Wet gas
- Retrograde
- Reserve estimates
- Laboratory simulation
- Gas cycling
- Condensate reservoirs:

Day five

- Field operations problems: interpreting p/z plots; hydrate formation

The Scandinavian Academy for Training and Development adopts the latest scientific and professional methodologies in training and human resource development, aiming to enhance the efficiency of individuals and organizations. Training programs are delivered through a comprehensive approach that includes:

- Theoretical lectures supported by PowerPoint presentations and visual materials (videos and short films).
- Scientific evaluation of participants before and after the program to measure progress and knowledge acquisition.
- Brainstorming sessions and practical role-playing to simulate real-life scenarios.
- Case studies tailored to align with the training content and participants work nature.
- Assessment tests conducted at the end of the program to evaluate the achievement of training objectives.

Each participant receives the training material (both theoretical and practical) in printed form and saved on a CD or flash drive. Detailed reports, including attendance records, final results, and overall program evaluations, are also provided.

Training materials are prepared professionally by a team of experts and specialists in various fields. At the end of the program, participants are awarded a professional attendance certificate, signed and accredited by the Scandinavian Academy for Training and Development.

Program Timings:

- 9:00 AM to 2:00 PM in Arab cities.
- 10:00 AM to 3:00 PM in European and Asian cities.

The program includes:

- A daily buffet provided during the sessions to ensure participants comfort.