

Scandinavian Academy
Training Center

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Riyadh - Al Khaleej District - Sheikh Abdul Aziz Bin Abdul Rahman Bin Bishr Street - 13223 - Office No. 5 | P.O.BOX : 13224

# Course: Instrumentation Engineering Practices for Facilities Personnel

| Code | City | hotel | Start | End | price | Language - Hours |
|---|---|---|---|---|---|---|
| CM-560SA | Al Baha | Hotel Meeting | 2027-02-07 | 2027-02-11 | 13950 SR | En - 25 |

## About this course

An exercise is developed throughout the session to illustrate the process of instrumentation selection and specification for a pressure vessel. The required documentation is identified and developed for incorporation in a BPCS (basic process control system). The exercise does not require formal instrument engineering training but prior field experience is very helpful. Through the use of individual and team problem solving you will learn about instrumentation on a vessel, developing required documentation, reviewing end devices, control valves, process control basics and discussing the various interfaces between facilities engineers, contractors and maintenance personnel. Participants will gain a better understanding of the instrumentation process and what is important to this discipline.

## Who should attend?

Oil and gas Facilities and Project, Electrical or Instrumentation and Controls Engineers with two or more years of field experience who want to further improve their practical understanding of Instrumentation/Controls systems within oil and gas facilities. Attendees should have good working knowledge of instrumentation and control fundamentals.

## Course Outcomes

### By the end of this course participants will learn :

- Instrumentation project management
- Instrumentation project documentation
- Loop diagrams, electrical and pneumatic
- Review end devices such as pressure, temperature, level, IP converters
- Valve types, shutdown, control, relief
- Process control basics
- P and D diagrams and interpretation

## Course Content

- Introduction
- Basic project management
- Front end engineering design (FEED)
- Final design activities
- Construction and commissioning
- Weekly project design actives
- Instrumentation weekly project that instruments a vessel
- Develop associated documentation to hook the instruments to a BPCS
- Loop diagram development
- Review of field devices in the form of pressure, temperature, level transmitters or switches
- Process control basics and their associated control elements
- Review of PLC, SCADA systems
- Review hazardous areas classification for electronic instruments
- Discussion of bid documentation and construction management

**The Scandinavian Academy for Training Center** 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 Center.

**Program Timings:  9:00 AM to 2:00 PM**

**The program includes:**

- A daily buffet provided during the sessions to ensure participants comfort.
- A closing ceremony on the final day to distribute certificates and celebrate participants achievements.
- **Note: All prices are exclusive of 15% Value Added Tax (VAT).**

# Our Success Partners

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