



AL166: Process Analyzer Techniques: Online & Offline (*Lab Equipment Overview & Maintenance*)

Training Description:

This intensive training course covers multiple measurement techniques ranging from physical, thermal, electrical, and optical techniques through those utilized in electrochemistry, chromatography and spectroscopy. It also touches on maintenance, system packaging and data handling consideration.

Training Objectives:

The objective of this training course is to familiarize both online (site) and offline (lab) analyzers, and covers principle of analyzer concept, available systems, latest update and safety aspect related to them and method of selection based on required application.

Training Designed for:

This course is intended for those who are regularly involved with process analyzer systems like instrument technicians and engineers, production, operation and laboratory staff involved with online & offline process.

Training Program:

DAY ONE:

- ❖ PRE-TEST
- ❖ Introduction
- ❖ Chemistry of Chemical Analyzers
- ❖ Continuous & Discrete Sample Preparation Techniques
- ❖ Measurement Devices Technology
- ❖ Calibration & Validation Methods

DAY TWO:

- ❖ Systems development lifecycles
 - Lifecycle models
 - Implications of using various lifecycles
 - Systems development approaches and methods

DAY THREE:

- ❖ Process modeling
 - Purpose and use in the lifecycle
 - Alternative approaches (data flow models, end-to-end process models, use cases)
 - Use Case diagrams – concepts and notation
 - <<include>> and <<extend>>
 - Use Case descriptions
 - Activity diagrams
 - Decision tables

DAY FOUR:

- ❖ Class and Data modeling
 - Purpose and use in the lifecycle
 - Alternative approaches (LDM/ERM, TNF/RDA, object class models)



- Top-down versus bottom-up
- Classes
- Attributes
- Abstraction and Encapsulation
- Associations
- Inheritance

DAY FIVE:

- ❖ Events and Collaborations
 - Event Modelling
 - The effects of events on classes
 - Collaboration Matrix
- ❖ Course Conclusion
- ❖ POST-TEST and EVALUATION

Training Requirement:

“**Hand’s on practical sessions, equipment and software** will be applied during the course if required and as per the client’s request.” (This hands-on, highly-interactive training includes simulator, real-life case studies and exercises).

This training course is available upon request in English or Arabic, virtual online live or face to face public/inhouse. Content, location and duration can be adapted to your specific wishes. It is therefore possible to focus on specific modules of the training course as per client’s learning needs and objectives. Further, it should be forwarded to us a month prior to the course dates.

Training Methodology:

This interactive training course includes the following training methodologies as a percentage of the total tuition hours:

- 30% Lectures, Concepts, Role Play
- 70% Workshops & Work Presentations, Techniques, Based on Case Studies & Practical Exercises, Software & General Discussions
- Pre and Post Test

Training Certificate(s):

Internationally recognized certificate(s) will be issued to each participant who completed the course.

Training Fees:

As per the course location - This rate includes participant’s manual, hand-outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Note: The 5% VAT (Value Added Tax), will be effective starting 01st of January 2018 as per the new regulation from the UAE Government. The VAT applies for all quotation both for local and abroad.



Training Timings:

Daily Timings:

07:45 - 08:00	Morning Coffee / Tea
08:00 - 10:00	First Session
10:00 - 10:20	Recess (Coffee/Tea/Snacks)
10:20 - 12:20	Second Session
12:20 - 13:30	Recess (Prayer Break & Lunch)
13:30 - 15:00	Last Session

For training registrations or in-house enquiries, please contact:

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Training & Career Development Department

