



AL020: Practical Problem Solving in Chemical Analysis





Training Description:

Almost all analytical courses are technique oriented. Each tends to be reviewed in depth, but in isolation and without reference to other methods. What distinguishes this course is that it takes a multidiscipline and integrated look at analytical techniques, with emphasis on the strength and limitations of each in a problem-solving context.

The course is designed to give a practical approach to the solution of method problems and technical problems that may require multiple technologies.

It will cover proper sampling procedures, most of the various analytical and physical measurement tools available for problem solving, including separation methods and classical and instrumental techniques, additionally, the course will cover the important computer procedures that can be used in the analysis of the data.

Training Objectives:

By the end of the training, participants will be able to:

- ✓ Learn the approach to solving problems in a cost effective and timely manner
- ✓ Acquire an integrated overview of many techniques and procedures used in modern analytical and physical measurement laboratories for pharmaceutical, polymers petrochemical, industrial chemicals and related materials
- ✓ Understand the values and limitations of each technique
- ✓ Prepare to make practical choices to apply in the solution of difficult problems
- ✓ Evaluate the importance of sampling, separation procedures and data treatment in problem solving

Training Designed for:

This course covers systematic techniques in practical problem solving in chemical analysis for experienced professionals including Scientists, Analysts, Chemist, Supervisors, Engineers, Managers, and University Professors as well as those who are involved with characterizing unknowns and handling difficult analytical problems in research (R&D and R&T), quality control, plant support, regulatory compliance or customer support will find this course extremely useful.

Training Program:

DAY ONE:

- ❖ PRE-TEST
- ❖ Introduction to Roads and Pavements
- ❖ Introduction to Practical Problem Solving in Chemical Analysis
- ❖ Objectives of Practical Problem Solving in Chemical Analysis
- ❖ Defining the Problem

DAY TWO:

- ❖ Spectroscopy- Qualitative and Quantitative Techniques
- ❖ PH
- ❖ Density and TDS



DAY THREE:

- ❖ Classical Analytical Methods
- ❖ Chromatography
- ❖ Sampling, Record Keeping, LIMS

DAY FOUR:

- ❖ Practical Session/Site Visit
- ❖ Sampling, Record Keeping, LIMS (cont'd)

DAY FIVE:

- ❖ Inorganic Analysis
- ❖ Problem Solving Session – Workshop
- ❖ Lab Case Studies
- ❖ Course Conclusion
- ❖ POST-TEST and EVALUATION

Training Requirements:

“Hands-on practical sessions, equipment and software will be applied during the course if required and as per the client’s request.”

Please note that the above topics can be amended 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

