

€ TRAINING

Laboratory Management Information System
LIMS

A group of four smiling professionals (two men and two women) in a meeting. They are wearing white shirts and are seated around a table. The background is a blurred office setting. A large blue curved graphic element is overlaid on the top right and bottom right of the image.

25 - 29 August 2025
Casablanca (Morocco)



Laboratory Management Information System LIMS

REF: M2824 DATE: 25 - 29 August 2025 Venue: Casablanca (Morocco) - Fee: 3685 Euro

Introduction:

This training program focuses on the essential components and functions of a Laboratory Management Information System LIMS, providing participants with the knowledge to efficiently manage laboratory workflows, data tracking, and reporting. It equips laboratory professionals with the skills to implement, operate, and maintain LIMS to ensure regulatory compliance, enhance productivity, and improve data accuracy.

Program Objectives:

By the end of this program, participants will be able to:

- Understand the key functions and architecture of a LIMS.
- Implement and configure LIMS to optimize laboratory workflows.
- Ensure data integrity, traceability, and regulatory compliance.
- Utilize LIMS for managing samples, tracking results, and generating reports.
- Integrate LIMS with other laboratory instruments and systems.

Target Audience:

- Laboratory Managers and Supervisors.
- Quality Assurance and Quality Control Professionals.
- IT and System Administrators in laboratory settings.
- Research Scientists and Laboratory Technicians.
- Professionals responsible for laboratory data management.

Program Outline:

Unit 1:

Introduction to LIMS and its Architecture:

- Overview of LIMS: Definition and key features.
- Importance of LIMS in modern laboratory operations.

- Core components and functionalities of a LIMS.
- Understanding LIMS architecture and workflow configuration.

Unit 2:

LIMS Implementation and Configuration:

- Steps for implementing a LIMS: Planning, installation, and configuration.
- Defining user roles and permissions within the LIMS system.
- Setting up sample management, workflows, and standard operating procedures SOPs.
- Configuring data entry points and establishing automated data collection.
- Steps for integrating LIMS with laboratory instruments and external systems.

Unit 3:

Data Management and Compliance in LIMS:

- Ensuring data accuracy, integrity, and traceability in LIMS.
- Managing laboratory data: Samples, results, inventory, and documentation.
- Compliance with regulatory standards ISO 17025, FDA, GLP, etc..
- Implementing audit trails and electronic signatures for compliance.
- Data security and backup strategies for laboratory information systems.

Unit 4:

Optimizing Laboratory Workflows with LIMS:

- Automating laboratory processes through LIMS: Sample tracking and test scheduling.
- Managing lab personnel, tasks, and equipment usage within LIMS.
- Generating custom reports and visualizations for data analysis.
- Real-time monitoring of laboratory performance through dashboards.
- Enhancing collaboration between teams using LIMS data sharing features.

Unit 5:



Troubleshooting and Continuous Improvement in LIMS:

- Common issues in LIMS implementation and how to resolve them.
- Best practices for maintaining and updating LIMS to meet evolving lab needs.
- Importance of training staff to effectively use LIMS for day-to-day operations.
- Monitoring system performance and user feedback for continuous improvement.
- Future trends in LIMS: Cloud integration, AI-driven insights, and scalability.