



Medical Laboratory Practice and Safety Training Course

3 – 7 January 2027
Cape town

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Ref: 1367_200986 **Date:** 3 – 7 January 2027 **Location:** Cape town **Fees:** 4500 Euro

Overview

Medical Laboratory Practice and Safety Training Course is a one-week intermediate course for laboratory, quality, biosafety, and specimen-processing teams who leave with a Laboratory Safety Improvement Plan. Participants map specimen workflows, assess biological, chemical, and equipment risks, select exposure controls, verify protective measures, manage waste, respond to incidents, and strengthen records. The course connects safe practice with quality evidence. Agile Leaders Training Center presents medical laboratory safety through applied risk control.

Who Should Attend

- Teams responsible for medical laboratory testing workflows
- Functions responsible for biosafety and exposure control
- Personnel responsible for specimen receipt, processing, and storage
- Groups responsible for laboratory quality and documentation
- Managers responsible for incidents, equipment, and corrective action

The course assumes participants work with laboratory processes or their oversight and leaves out diagnostic interpretation, method validation, and specialist testing competency.

Departments and Industries

The course supports departments and industries that operate or oversee medical laboratory processes.

- Clinical and public health laboratories
- Hospital pathology and diagnostic services
- Research, biotechnology, and specimen repositories
- Occupational health and infection prevention functions
- Laboratory quality, facilities, and technical services

Learning Objectives

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

- Apply a laboratory biosafety risk assessment
- Use specimen workflow and acceptance controls
- Analyze biological, chemical, and equipment hazards
- Prioritize exposure, containment, and protective measures
- Evaluate incidents, records, and corrective actions



- Build a Laboratory Safety Improvement Plan

Course Agenda

Day 1: Laboratory Safety Foundations

- Laboratory Process and Hazard Map
- Activity-Based Biosafety Risk Assessment
- Risk Likelihood and Consequence Matrix
- Residual Risk Acceptance Record
- Laboratory Safety Responsibility Framework

Day 2: Specimen and Exposure Controls

- Specimen Receipt and Identification Checklist
- Sample Acceptance and Rejection Criteria
- Specimen Transport and Storage Control Log
- Hierarchy of Exposure Controls Guide
- Personal Protective Equipment Selection Matrix

Day 3: Equipment, Chemicals, and Waste

- Biological Safety Cabinet Work Practice Guide
- Equipment Pre-Use Safety Check
- Chemical Hazard Information Review
- Sharps and Spill Prevention Checklist
- Decontamination and Waste Segregation Plan

Day 4: Incidents, Quality, and Records

- Laboratory Incident Response Flowchart
- Exposure Notification and Follow-Up Record
- Nonconforming Event Analysis Method
- Standard Operating Procedure Control Register
- Corrective Action Effectiveness Tracker

Day 5: Laboratory Safety Practice

- Exercise: Assess a Specimen-Handling Risk
- Exercise: Select Exposure and Protective Controls
- Exercise: Respond to a Spill and Equipment Failure
- Exercise: Review Records and Corrective Actions
- Capstone Exercise: Laboratory Safety Improvement Plan

Practical Exercises

The course uses suggested activities based on clinical, public health, and research laboratory situations.

- Suggested activity: map a specimen pathway and identify biological, chemical, physical, equipment, and human-factor hazards.
- Suggested activity: assess a laboratory procedure, select sustainable controls, and document residual risk and verification evidence.
- Suggested activity: coordinate a spill or exposure response and complete notification, follow-up, and corrective-action records.
- Suggested activity: build a Laboratory Safety Improvement Plan with priorities, owners, controls, and review points.

FAQs

What is medical laboratory practice and safety?

Medical laboratory practice and safety combines reliable specimen workflows, risk assessment, exposure controls, incident response, quality checks, and documented improvement.

Who suits medical laboratory practice and safety training, and what does it assume?

Medical laboratory practice and safety training suits technical, quality, biosafety, and supervisory teams and assumes practical involvement in laboratory processes or oversight.

How does medical laboratory safety differ from diagnostic laboratory training?

Medical laboratory safety develops process, risk-control, and incident-management skills, while diagnostic laboratory training develops test-specific analytical and interpretive competencies.

Why is risk assessment central to medical laboratory safety?

Risk assessment links each activity and hazard to suitable controls, residual-risk decisions, required resources, and evidence that protective measures remain effective.

How should medical laboratories learn from safety incidents?

Medical laboratories should document incidents, analyze contributing factors, assign corrective actions, verify effectiveness, and update procedures or controls when risks recur.



Conclusion

The course connects specimen workflow, risk assessment, protective controls, equipment and chemical safety, incident response, and quality records. Participants take back a Laboratory Safety Improvement Plan with priorities, owners, measures, and review points. The plan changes how laboratory teams control exposure, verify safe practice, and learn from operating evidence.