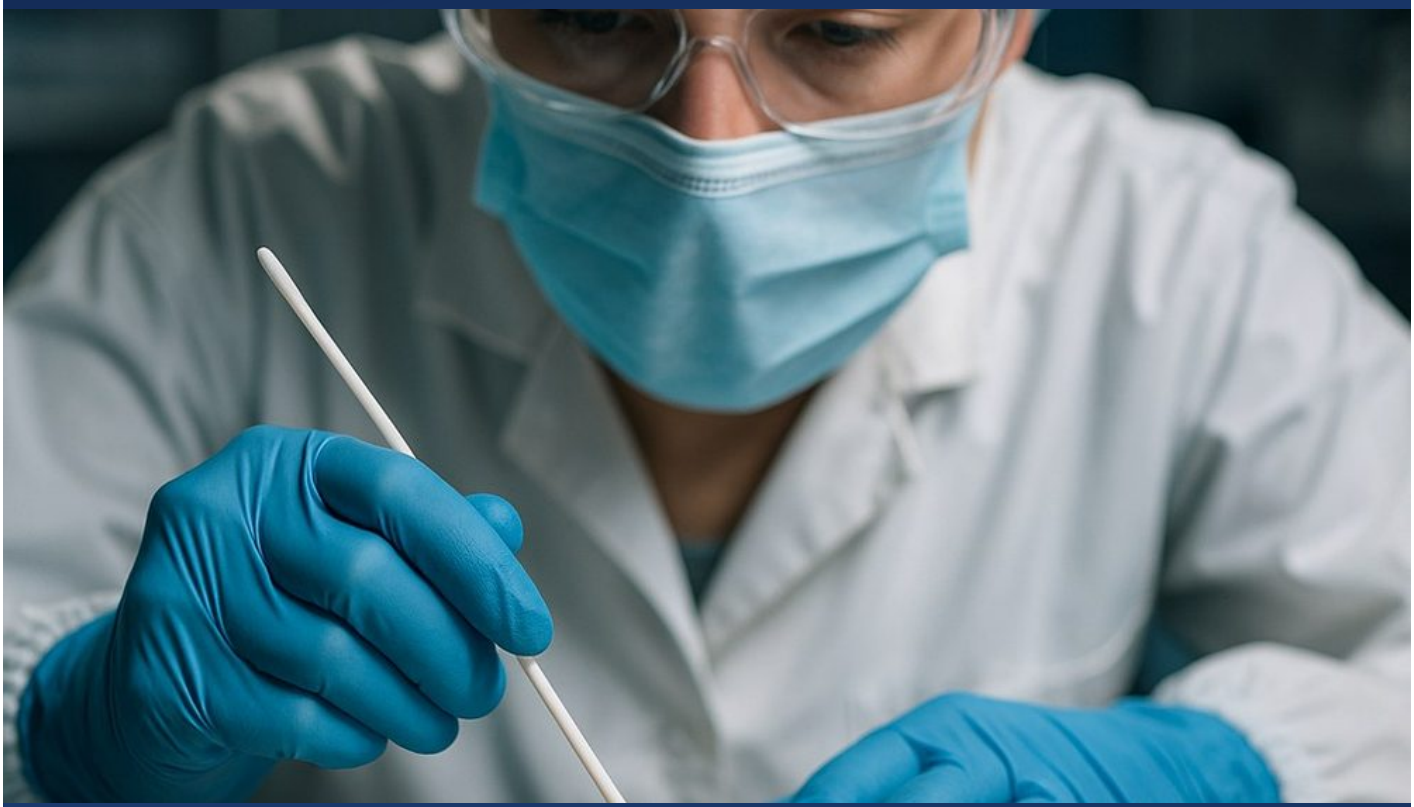
LAPT

LONDON ACADEMY OF PROFESSIONAL TRAINING

CERTIFICATE

ISO 18593 — Microbiology Horizontal Methods for Surface Sampling

ISO Certification Programme



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Reference FGA-MCB-18593 • ISO Food & Agriculture

UKPRN 10067351 • Registered in England and Wales, company 4984798

6	30	180	430	60%	Lifetime
SUBJECTS	CHAPTERS	CLASSES	TOTAL MARKS	PASS MARK	VALIDITY

AT A GLANCE

REFERENCE	**FGA-MCB-18593**
AWARD	**Certificate**
ASSESSMENT	**430 marks — 258 to pass (60%)**
PREREQUISITES	**None**
VALIDITY	**Lifetime**
AWARDING BODY	**LAPT — London Academy of Professional Training**

CURRICULUM

1 Data Analysis and Interpretation

5 chapters · 30 classes · **85 marks**

• 1 Fundamentals of Microbial Data Collection Techniques — 6 classes

- 1.1 Identify Key Microbial Data Collection Techniques
- 1.2 Describe the Importance of Accurate Surface Sampling
- 1.3 Explore Best Practices for Preparing Sampling Materials
- 1.4 Analyze Different Surface Sampling Methods and Their Applications
- 1.5 Evaluate Data Quality in Microbial Surface Sampling
- 1.6 Apply Data Interpretation Techniques to Microbial Sampling Results

• 2 Statistical Methods for Microbial Data Analysis — 6 classes

- 2.1 Identify and Explain Key Statistical Terms in Microbial Data Analysis
- 2.2 Describe and Implement Descriptive Statistics for Microbial Data
- 2.3 Utilize Graphical Representations to Analyze Microbial Data Trends
- 2.4 Conduct Hypothesis Testing for Microbial Data Interpretations
- 2.5 Apply Regression Analysis to Predict Microbial Growth Patterns
- 2.6 Interpret Results and Make Data-Driven Decisions in Microbial Testing

• 3 Interpreting Microbial Data: Integrating ISO 18593 Standards — 6 classes

- 3.1 Analyze Sampling Techniques in ISO 18593
- 3.2 Understand Microbial Data Collection Methods
- 3.3 Evaluate Data Quality and Integrity Standards
- 3.4 Interpret Quantitative Results from Surface Samples
- 3.5 Compare ISO 18593 with Other Standard Methods
- 3.6 Apply Findings to Develop Actionable Insights

• 4 Advanced Data Visualization Techniques — 6 classes

- 4.1 Explore Various Data Visualization Tools
- 4.2 Interpret Basic Visual Data Representations
- 4.3 Create Interactive Graphs Using Software Applications
- 4.4 Analyze Data Trends Through Advanced Charting Techniques
- 4.5 Evaluate the Effectiveness of Data Visualization Techniques
- 4.6 Present and Communicate Findings with Visual Data

• 5 Evaluating and Communicating Results for Decision-Making — 6 classes

- 5.1 Identify Key Metrics for Effective Surface Sampling Analysis
- 5.2 Analyze Data Trends to Inform Microbial Risk Assessment
- 5.3 Interpret Results in the Context of ISO 18593 Standards
- 5.4 Compare Sampling Methods: Quantitative vs Qualitative Data
- 5.5 Communicate Findings Clearly to Stakeholders
- 5.6 Make Informed Decisions Based on Data Insights

2 Leadership and Team Effectiveness

5 chapters · 30 classes **65 marks**

- **1 Understanding Leadership Models in Food Microbiology** — 6 classes
  - 1.1 Analyze Leadership Theories Relevant to Food Microbiology
  - 1.2 Evaluate the Impact of Leadership Styles on Team Performance
  - 1.3 Identify Key Characteristics of Effective Leaders in Microbiology Settings
  - 1.4 Compare Traditional vs. Contemporary Leadership Models in Microbiology
  - 1.5 Apply Leadership Models to Real-World Food Microbiology Scenarios
  - 1.6 Develop a Personal Leadership Action Plan for Microbiological Teams
- **2 Building Effective Teams in Microbial Testing Environments** — 6 classes
  - 2.1 Identify the Key Components of Effective Teams in Microbial Testing
  - 2.2 Analyze Leadership Styles and Their Impact on Team Dynamics
  - 2.3 Develop Communication Strategies for Diverse Team Members
  - 2.4 Foster Collaboration and Trust Among Team Members
  - 2.5 Implement Conflict Resolution Techniques in Microbial Testing Teams
  - 2.6 Create Action Plans for Continuous Team Improvement in ISO Practices
- **3 Communication Skills for Leadership in Food Safety** — 6 classes
  - 3.1 Analyze Key Communication Barriers in Food Safety Leadership
  - 3.2 Develop Active Listening Techniques for Effective Team Communication
  - 3.3 Employ Persuasive Communication Strategies to Influence Workplace Practices
  - 3.4 Utilize Non-Verbal Communication to Enhance Team Engagement
  - 3.5 Create Clear and Concise Messages for Food Safety Protocols
  - 3.6 Facilitate Team Discussions to Foster a Culture of Open Communication
- **4 Motivating Teams to Achieve Compliance with ISO 18593** — 6 classes
  - 4.1 Understand the Importance of ISO 18593 Compliance
  - 4.2 Identify Key Motivational Factors for Your Team
  - 4.3 Develop Effective Communication Strategies for Motivation
  - 4.4 Implement Incentive Programs to Encourage Compliance
  - 4.5 Set Clear Goals and Expectations for ISO Compliance
  - 4.6 Evaluate Team Progress and Adapt Motivational Strategies
- **5 Evaluating Team Effectiveness and Continuous Improvement** — 6 classes
  - 5.1 Define Team Effectiveness Metrics
  - 5.2 Analyze Current Team Performance
  - 5.3 Identify Barriers to Team Effectiveness
  - 5.4 Develop Strategies for Improvement
  - 5.5 Implement Continuous Feedback Mechanisms
  - 5.6 Evaluate the Impact of Improvement Initiatives

3 Microbiological Sampling Techniques

5 chapters · 30 classes **105 marks**

- **1 Principles of Microbiological Sampling Methods** — 6 classes
  - 1.1 Understand the Importance of Microbiological Sampling in Environmental Monitoring
  - 1.2 Identify Different Surface Sampling Techniques and Their Applications
  - 1.3 Analyze Factors Influencing Microbial Contamination in Surface Sampling
  - 1.4 Examine Equipment and Materials Needed for Effective Sampling
  - 1.5 Implement Best Practices for Collecting Microbiological Samples Safely
  - 1.6 Assess Data Collection Methods and Interpretation of Sampling Results
- **2 Surface Sampling Techniques for Microbial Analysis** — 6 classes
  - 2.1 Identify Key Considerations for Surface Sampling
  - 2.2 Explore Various Surface Sampling Methods
  - 2.3 Select Appropriate Tools for Surface Sampling
  - 2.4 Implement Correct Sampling Techniques and Protocols
  - 2.5 Analyze Collected Samples for Microbial Presence
  - 2.6 Evaluate Results and Improve Sampling Strategies
- **3 Selecting Appropriate Sampling Tools and Materials** — 6 classes
  - 3.1 Identify Key Factors in Sampling Tool Selection
  - 3.2 Compare Different Surface Sampling Tools
  - 3.3 Evaluate Sampling Materials Based on Microbial Needs
  - 3.4 Demonstrate Proper Use of Sampling Equipment
  - 3.5 Analyze the Impact of Environmental Conditions on Sampling
  - 3.6 Develop a Sampling Plan Using Appropriate Tools and Materials
- **4 Sampling Plan Development and Implementation** — 6 classes
  - 4.1 Define Key Objectives for Microbial Surface Sampling
  - 4.2 Identify Factors Influencing Sampling Plan Design
  - 4.3 Develop Criteria for Selecting Sampling Locations
  - 4.4 Construct a Detailed Microbiological Sampling Timeline
  - 4.5 Implement Quality Control Measures in Sampling Plans
  - 4.6 Analyze and Adjust Sampling Plans Based on Preliminary Data
- **5 Data Interpretation and Reporting of Sampling Results** — 6 classes
  - 5.1 Analyze Microbiological Data from Surface Samples
  - 5.2 Evaluate Statistical Methods for Sampling Results Interpretation
  - 5.3 Compare Results Against ISO 18593 Standards
  - 5.4 Identify Trends in Microbial Contamination Data
  - 5.5 Develop Effective Reporting Techniques for Sampling Outcomes
  - 5.6 Apply Interpretation Skills to Real-World Sampling Scenarios

4 Quality Assurance Protocols

5 chapters · 30 classes **65 marks**

• 1 Understanding ISO 18593 Standards and Their Importance in Food Microbiology — 6 classes

- 1.1 Define ISO 18593 and Its Relevance to Food Safety
- 1.2 Identify Key Components of ISO 18593 Standards
- 1.3 Explore Best Practices for Surface Sampling in Food Microbiology
- 1.4 Analyze the Role of Quality Assurance in Implementing ISO 18593
- 1.5 Evaluate Compliance Strategies for ISO 18593 Certification
- 1.6 Develop an Action Plan for Integrating ISO 18593 in Food Safety Protocols

• 2 Fundamentals of Surface Sampling Techniques for Microbial Analysis — 6 classes

- 2.1 Identify Key Parameters in Surface Sampling for Microbial Analysis
- 2.2 Compare Different Surface Sampling Techniques and Their Applications
- 2.3 Demonstrate Proper Use of Sampling Equipment for Microbial Testing
- 2.4 Analyze Factors Affecting Surface Sampling Effectiveness
- 2.5 Evaluate Sample Preservation Methods for Optimal Results
- 2.6 Develop a Sampling Plan Tailored to Specific Microbial Risks

• 3 Developing Quality Assurance Protocols for Effective Sampling — 6 classes

- 3.1 Analyze the Importance of Quality Assurance in Surface Sampling
- 3.2 Identify Key Components of ISO 18593 Standards
- 3.3 Develop a Step-by-Step Sampling Protocol Template
- 3.4 Evaluate Common Challenges in Surface Sampling Procedures
- 3.5 Implement Best Practices for Ensuring Sampling Accuracy
- 3.6 Assess Real-World Scenarios for Protocol Effectiveness

• 4 Interpreting Surface Sampling Results in Food Microbiology — 6 classes

- 4.1 Analyze Surface Sampling Techniques in Food Microbiology
- 4.2 Identify Common Contaminants Found in Surface Samples
- 4.3 Evaluate Sampling Data for Compliance with ISO 18593 Standards
- 4.4 Compare Results from Different Surface Sampling Methods
- 4.5 Interpret Microbial Load Results and Their Implications
- 4.6 Develop Action Plans Based on Surface Sampling Outcomes

• 5 Continuous Improvement in Surface Sampling Practices for Quality Assurance — 6 classes

- 5.1 Analyze Current Surface Sampling Techniques for Quality Assurance
- 5.2 Identify Key Indicators for Continuous Improvement in Surface Sampling
- 5.3 Develop Standard Operating Procedures for Enhanced Protocols
- 5.4 Implement Training Programs for Staff on Best Practices
- 5.5 Evaluate the Impact of Changes on Quality Assurance Outcomes
- 5.6 Create a Feedback Loop for Ongoing Improvement in Surface Sampling

5 Risk Management in Microbiology

5 chapters · 30 classes **65 marks**

• 1 Fundamentals of Microbial Risks in Food Production — 6 classes

- 1.1 Identify Key Microbial Risks in Food Production
- 1.2 Analyze the Impact of Contamination Sources on Microbial Risk
- 1.3 Evaluate Microbial Risk Assessment Methods in Food Safety
- 1.4 Implement Control Measures for Managing Microbial Risks
- 1.5 Monitor and Review Microbial Risk Management Strategies
- 1.6 Develop a Risk Communication Plan for Food Safety Practices

• 2 ISO 18593 Standards: Framework for Surface Sampling — 6 classes

- 2.1 Understand ISO 18593: Overview of Microbiology Surface Sampling Standards
- 2.2 Identify Key Components of ISO 18593 Framework
- 2.3 Analyze Risks Associated with Surface Sampling in Microbiology
- 2.4 Apply Sampling Techniques in Compliance with ISO 18593 Standards
- 2.5 Evaluate Efficacy of Different Surface Sampling Methods
- 2.6 Develop a Risk Management Plan for Implementing ISO 18593 Standards

• 3 Identifying Critical Control Points in Microbial Risk Management — 6 classes

- 3.1 Define Critical Control Points in Microbial Risk Management
- 3.2 Analyze Risk Factors Affecting Microbial Control
- 3.3 Identify Key Areas for Surface Sampling in Microbiology
- 3.4 Evaluate Current Practices for Monitoring Microbial Risks
- 3.5 Develop Strategies for Effective Control Point Implementation
- 3.6 Create an Action Plan for Consistent Microbial Risk Assessment

• 4 Risk Assessment Techniques in Microbial Analysis — 6 classes

- 4.1 Identify Key Risks in Microbial Surface Sampling
- 4.2 Analyze Different Assessment Techniques for Microbial Risks
- 4.3 Evaluate the Impact of Environmental Factors on Microbial Growth
- 4.4 Develop Risk Scenarios for Microbial Contamination
- 4.5 Create a Risk Assessment Matrix for Microbial Analysis
- 4.6 Implement Mitigation Strategies Based on Risk Assessment Findings

• 5 Developing a Comprehensive Risk Management Plan — 6 classes

- 5.1 Identify Key Microbial Risks in Surface Sampling
- 5.2 Assess the Impact of Microbial Contamination on Health and Safety
- 5.3 Develop Risk Prioritization Strategies for Microbial Hazards
- 5.4 Create Effective Mitigation Plans for Identified Risks
- 5.5 Implement Monitoring and Review Procedures for Risk Management
- 5.6 Evaluate the Effectiveness of the Risk Management Plan in Practice

6 Training and Development in Food Safety

5 chapters · 30 classes **45 marks**

• 1 Understanding ISO 18593 Standards for Surface Sampling in Microbiology — 6 classes

- › 1.1 Explore ISO 18593 Standards and Their Importance in Microbiology
- › 1.2 Identify Key Terminology Essential for Surface Sampling
- › 1.3 Analyze Surface Sampling Techniques in Food Safety Practices
- › 1.4 Evaluate Different Surface Sampling Tools and Their Applications
- › 1.5 Implement Best Practices for Collecting Surface Samples
- › 1.6 Review Case Studies on Effective Use of ISO 18593 in Real-World Scenarios

• 2 Microbiological Risks in Food Production and Handling — 6 classes

- › 2.1 Identify Common Microbiological Risks in Food Production
- › 2.2 Analyze Environmental Factors Affecting Microbial Growth
- › 2.3 Evaluate Safe Food Handling Practices to Mitigate Risks
- › 2.4 Examine the Role of Personal Hygiene in Preventing Contamination
- › 2.5 Implement Surface Sampling Techniques for Microbiological Assessment
- › 2.6 Develop a Risk Management Plan for Food Safety Compliance

• 3 Techniques for Effective Surface Sampling in Food Environments — 6 classes

- › 3.1 Identify Key Microbial Risks in Food Environments
- › 3.2 Understand Surface Sampling Techniques and Their Importance
- › 3.3 Select Appropriate Sampling Tools for Surface Testing
- › 3.4 Demonstrate Proper Surface Sampling Procedures
- › 3.5 Analyze Sampling Results for Food Safety Compliance
- › 3.6 Develop Action Plans Based on Surface Sample Outcomes

• 4 Data Interpretation and Reporting in Microbial Surface Sampling — 6 classes

- › 4.1 Analyze Microbial Surface Sampling Data for Trends
- › 4.2 Interpret Sampling Results in Relation to Food Safety Standards
- › 4.3 Compare Microbial Data Across Different Surfaces and Environments
- › 4.4 Evaluate the Effectiveness of Cleaning Protocols Through Data Analysis
- › 4.5 Communicate Findings in Microbial Surface Sampling Reports
- › 4.6 Develop Action Plans Based on Data Interpretation for Food Safety Improvements

• 5 Implementing a Quality Management System for Surface Sampling Practices — 6 classes

- › 5.1 Understand ISO 18593 Standards for Surface Sampling
- › 5.2 Identify Key Components of a Quality Management System
- › 5.3 Develop Procedures for Effective Surface Sampling
- › 5.4 Train Staff on Best Practices for Surface Sampling Techniques
- › 5.5 Implement Monitoring and Evaluation Methods for Sampling Quality
- › 5.6 Review and Adapt Quality Management Systems for Continuous Improvement