

# LAPT

LONDON ACADEMY OF PROFESSIONAL TRAINING

CERTIFICATE

## ISO 11137 — Sterilization by Radiation

*ISO Certification Programme*



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### LAPT — London Academy of Professional Training

**Address** 85 Great Portland Street, W1W 7LT, London, United Kingdom

**Email** [info@lapt.org](mailto:info@lapt.org)

**Telephone** +44 7513 283044

**Web** [lapt.org](http://lapt.org)

**Reference** HL-EQP-11137 • ISO Health

UKPRN 10067351 • Registered in England and Wales, company 4984798

AT A GLANCE

|               |                                                |
|---------------|------------------------------------------------|
| REFERENCE     | HL-EQP-11137                                   |
| AWARD         | Certificate                                    |
| ASSESSMENT    | 430 marks — 258 to pass (60%)                  |
| PREREQUISITES | None                                           |
| VALIDITY      | Lifetime                                       |
| AWARDING BODY | LAPT — London Academy of Professional Training |

CURRICULUM

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| <div>1</div> <div>Continuous Improvement in Sterilisation</div> <div>0 chapters45 marks</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <div>2</div> <div>Fundamentals of Radiation Sterilisation</div> <div>5 chapters · 30 classes85 marks</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <div><div>• 1 Understanding Radiation and Its Types — 6 classes</div><div><div>› 1.1 Define Radiation and Its Importance in Sterilization</div><div>› 1.2 Identify Different Types of Radiation Used in Sterilisation</div><div>› 1.3 Explain the Mechanism of Ionizing Radiation in Microbial Kill</div><div>› 1.4 Compare and Contrast Key Features of Gamma, X-ray, and Electron Beam Radiation</div><div>› 1.5 Analyze Safety Measures Related to Radiation Exposure in Sterilization</div><div>› 1.6 Evaluate the Effectiveness of Radiation Sterilisation in Various Applications</div></div><div><div>• 2 Principles of Sterilization and Microbial Control — 6 classes</div><div><div>› 2.1 Define Sterilization and Its Importance in Microbial Control</div><div>› 2.2 Identify Different Methods of Sterilization Used in Healthcare</div><div>› 2.3 Explain the Mechanism of Action for Radiation Sterilization</div><div>› 2.4 Compare Radiation Sterilization with Other Sterilization Techniques</div><div>› 2.5 Evaluate Factors Affecting the Efficacy of Radiation Sterilization</div><div>› 2.6 Apply Best Practices for Implementing Radiation Sterilization in Facilities</div></div><div><div>• 3 ISO 11137 Standards and Requirements — 6 classes</div><div><div>› 3.1 Understand ISO 11137 Standards and their Importance</div><div>› 3.2 Identify Key Terminology in Radiation Sterilisation</div><div>› 3.3 Outline the Radiation Sterilisation Process Steps</div><div>› 3.4 Analyze Equipment Requirements for Radiation Sterilisation</div><div>› 3.5 Assess Safety Protocols in Radiation Sterilisation</div><div>› 3.6 Implement Quality Control Measures Following ISO 11137</div></div></div></div></div> | <div><div>• 4 Radiation Dosimetry and Measurement Techniques — 6 classes</div><div><div>› 4.1 Understand Basic Principles of Radiation Dosimetry</div><div>› 4.2 Explore Different Types of Radiation Measurement Techniques</div><div>› 4.3 Identify Key Factors Affecting Radiation Dosimetry Accuracy</div><div>› 4.4 Analyze the Role of Calibration in Radiation Measurement</div><div>› 4.5 Implement Assessment Methods for Radiation Dose Distribution</div><div>› 4.6 Evaluate Real-World Applications of Radiation Dosimetry in Sterilization</div></div><div><div>• 5 Quality Assurance in Radiation Sterilization — 6 classes</div><div><div>› 5.1 Identify Key Components of Quality Assurance in Radiation Sterilization</div><div>› 5.2 Analyze the Role of Validation in Radiation Sterilization Processes</div><div>› 5.3 Evaluate Risk Management Strategies for Radiation Sterilization</div><div>› 5.4 Develop Standard Operating Procedures for Radiation Sterilization</div><div>› 5.5 Implement Quality Control Measures in Radiation Sterilization</div><div>› 5.6 Assess the Impact of Quality Assurance on Sterilization Outcomes</div></div></div></div> |

## • 1 Understanding ISO 11137 Standards: An Overview — 6 classes

- › 1.1 Explore the Basics of ISO 11137 Standards
- › 1.2 Identify Key Components of Radiation Sterilization
- › 1.3 Analyze the Importance of Compliance in Sterilization Processes
- › 1.4 Examine Radiation Types and Their Applications in Sterilization
- › 1.5 Assess Risk Management Strategies within ISO 11137 Framework
- › 1.6 Implement Best Practices for Maintaining ISO 11137 Compliance

## • 2 Fundamentals of Radiation Sterilization Processes — 6 classes

- › 2.1 Define Radiation Sterilization and Its Importance in Healthcare
- › 2.2 Explain the Principles of Radiation Types Used in Sterilization
- › 2.3 Identify Key ISO 11137 Standards Relevant to Radiation Sterilization
- › 2.4 Discuss the Various Radiation Sterilization Processes and Their Applications
- › 2.5 Analyze the Compliance Requirements for ISO 11137 Certification
- › 2.6 Evaluate Case Studies on Successful Implementation of Radiation Sterilization

## • 3 ISO 11137 Compliance Requirements and Documentation — 6 classes

- › 3.1 Understand ISO 11137: Overview of Sterilization Standards
- › 3.2 Identify Compliance Requirements for ISO 11137
- › 3.3 Analyze Documentation Standards in ISO 11137 Compliance
- › 3.4 Evaluate the Role of Validation in Radiation Sterilization
- › 3.5 Implement Best Practices for Maintaining Compliance Records
- › 3.6 Review Case Studies Illustrating ISO 11137 Compliance

## • 4 Risk Management and Quality Assurance in Sterilization — 6 classes

- › 4.1 Identify Key Risks in Radiation Sterilization Processes
- › 4.2 Analyze the Impact of Risks on Quality Assurance
- › 4.3 Develop Strategies for Risk Mitigation in Sterilization
- › 4.4 Implement Quality Assurance Techniques for Effective Sterilization
- › 4.5 Evaluate Compliance with ISO 11137 Standards
- › 4.6 Create a Continuous Improvement Plan for Sterilization Quality Management

## • 5 Auditing and Continuous Improvement of ISO 11137 Practices — 6 classes

- › 5.1 Understand ISO 11137 Compliance Requirements
- › 5.2 Identify Key Audit Processes for ISO 11137
- › 5.3 Evaluate Current Practices Against ISO 11137 Standards
- › 5.4 Implement Effective Corrective Actions for Non-Compliance
- › 5.5 Develop an Internal Audit Checklist for ISO 11137
- › 5.6 Create a Continuous Improvement Plan Based on Audit Findings

## • 1 Understanding ISO 11137 Standards and Their Importance in Sterilization

## • 2 Principles of Radiation Sterilization and Quality Assurance

## • 3 Quality Control Measures for Radiation Sterilization Processes

## • 4 Risk Management and Compliance in Radiation Sterilization

## • 5 Continuous Improvement and Innovation in Quality Assurance Practices