LAPT

LONDON ACADEMY OF PROFESSIONAL TRAINING

CERTIFICATE

Six Sigma Green Belt Professional

LAPT — London Academy of Professional Training

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Reference MSPC-SS-03 • Management Centres

UKPRN 10067351 • Registered in England and Wales, company 4984798

6	30	174	430	60%	Lifetime
SUBJECTS	CHAPTERS	CLASSES	TOTAL MARKS	PASS MARK	VALIDITY

AT A GLANCE

REFERENCE	**MSPC-SS-03**
AWARD	**Certificate**
ASSESSMENT	**430 marks — 258 to pass (60%)**
PREREQUISITES	**None**
VALIDITY	**Lifetime**
AWARDING BODY	**LAPT — London Academy of Professional Training**

CURRICULUM

1 Implementing Six Sigma Projects

5 chapters · 30 classes · **45 marks**

• 1 Understanding the Six Sigma Methodology and Project Objectives — 6 classes

- 1.1 Define Six Sigma: Key Principles and Concepts
- 1.2 Identify the DMAIC Framework: Steps and Importance
- 1.3 Analyze Customer Needs: Setting Project Objectives
- 1.4 Establish Project Scope: Defining Boundaries and Goals
- 1.5 Develop a Project Charter: Essential Components
- 1.6 Communicate Project Objectives: Engaging Stakeholders Effectively

• 2 Identifying and Selecting Six Sigma Projects — 6 classes

- 2.1 Define Project Selection Criteria for Six Sigma
- 2.2 Analyze Business Needs to Identify Improvement Opportunities
- 2.3 Evaluate Stakeholder Input for Project Prioritization
- 2.4 Conduct a SWOT Analysis for Potential Six Sigma Projects
- 2.5 Prioritize Projects Using the Pareto Principle
- 2.6 Develop a Project Charter for Selected Six Sigma Initiatives

• 3 Defining Project Scope and Establishing Stakeholder Engagement — 6 classes

- 3.1 Identify Key Components of Project Scope
- 3.2 Analyze Organizational Stakeholders
- 3.3 Develop a Stakeholder Engagement Plan
- 3.4 Facilitate Effective Stakeholder Communication
- 3.5 Set Clear Objectives for Six Sigma Projects
- 3.6 Evaluate and Adjust Project Scope Based on Feedback

• 4 Utilizing Tools for Data Collection and Analysis — 6 classes

- 4.1 Identify Key Data Metrics for Six Sigma Projects
- 4.2 Select Appropriate Data Collection Methods
- 4.3 Design Surveys and Questionnaires for Effective Feedback
- 4.4 Implement Data Visualization Techniques for Analysis
- 4.5 Utilize Statistical Tools for Data Interpretation
- 4.6 Integrate Findings to Drive Project Improvements

• 5 Implementing Improvements and Measuring Impact — 6 classes

- 5.1 Identify Key Improvement Areas in Six Sigma Projects
- 5.2 Develop a Strategic Action Plan for Implementation
- 5.3 Utilize Data Analysis Tools to Measure Improvement
- 5.4 Establish Baseline Metrics for Project Assessment
- 5.5 Conduct Impact Evaluation of Implemented Improvements
- 5.6 Communicate Results and Foster Continuous Improvement Culture

2 Introduction to Six Sigma

5 chapters · 30 classes **85 marks**

- **1 Fundamentals of Six Sigma and Quality Management** — 6 classes
  - 1.1 Define Key Concepts in Six Sigma and Quality Management
  - 1.2 Explore the History and Evolution of Six Sigma Methodologies
  - 1.3 Identify the Role of Quality Management in Business Success
  - 1.4 Analyze the DMAIC Framework for Process Improvement
  - 1.5 Evaluate the Importance of Customer Focus in Quality Management
  - 1.6 Apply Basic Six Sigma Tools for Quality Assessment
- **2 The DMAIC Process: Definition and Phases** — 6 classes
  - 2.1 Define DMAIC: Understanding the Framework and Its Importance
  - 2.2 Explore the Define Phase: Identifying the Problem Statement
  - 2.3 Analyze the Measure Phase: Key Metrics and Data Collection
  - 2.4 Investigate the Analyze Phase: Identifying Root Causes
  - 2.5 Examine the Improve Phase: Developing and Implementing Solutions
  - 2.6 Review the Control Phase: Sustaining Improvements and Monitoring
- **3 Data Collection and Analysis Techniques** — 6 classes
  - 3.1 Identify Types of Data Used in Six Sigma
  - 3.2 Explore Data Collection Methods for Quality Improvement
  - 3.3 Utilize Sampling Techniques for Effective Data Gathering
  - 3.4 Analyze Data with Descriptive Statistics
  - 3.5 Apply Data Visualization Tools for Insight Generation
  - 3.6 Implement Data Analysis Software in Six Sigma Projects
- **4 Tools and Techniques for Process Improvement** — 6 classes
  - 4.1 Identify the Key Components of Six Sigma Tools
  - 4.2 Demonstrate the Use of SIPOC Diagrams for Understanding Processes
  - 4.3 Analyze the Role of Flowcharts in Process Mapping
  - 4.4 Apply the 5 Whys Technique for Root Cause Analysis
  - 4.5 Utilize Pareto Charts to Prioritize Process Issues
  - 4.6 Implement Control Plans to Sustain Process Improvements
- **5 Implementing Six Sigma in an Organization** — 6 classes
  - 5.1 Define the Core Principles of Six Sigma
  - 5.2 Identify Key Roles in a Six Sigma Team
  - 5.3 Assess Current Processes for Six Sigma Implementation
  - 5.4 Develop a Six Sigma Project Charter
  - 5.5 Create a Plan for Training and Communication
  - 5.6 Measure the Impact of Six Sigma on Organizational Performance

3 Leading Teams in Change Initiatives

5 chapters · 30 classes **85 marks**

- **1 Understanding Change Management Principles** — 6 classes
  - 1.1 Define Change Management Concepts and Theories
  - 1.2 Identify Key Drivers of Change in Organizations
  - 1.3 Analyze Stakeholder Roles and Impacts in Change Processes
  - 1.4 Explore Change Models and Their Application
  - 1.5 Develop Strategies for Effective Communication During Change
  - 1.6 Assess and Measure the Impact of Change Initiatives
- **2 Assessing Team Readiness for Change** — 6 classes
  - 2.1 Identify Change Drivers Within the Team
  - 2.2 Evaluate Team Dynamics and Culture
  - 2.3 Assess Individual Readiness for Change
  - 2.4 Conduct a Readiness Assessment Survey
  - 2.5 Analyze Readiness Assessment Results
  - 2.6 Develop Strategies to Enhance Team Readiness
- **3 Effective Communication Strategies during Change** — 6 classes
  - 3.1 Understand the Importance of Communication during Change
  - 3.2 Identify Key Stakeholders and Their Communication Needs
  - 3.3 Develop Tailored Messaging for Different Audiences
  - 3.4 Utilize Effective Listening Techniques in Conversations
  - 3.5 Implement Feedback Loops to Enhance Communication
  - 3.6 Practice Communication Scenarios for Real-Time Change Leadership
- **4 Building Resilience and Adaptability in Teams** — 6 classes
  - 4.1 Identify Key Characteristics of Resilient Teams
  - 4.2 Analyze the Impact of Change on Team Dynamics
  - 4.3 Develop Strategies for Enhancing Team Adaptability
  - 4.4 Implement Tools for Effective Communication During Change
  - 4.5 Foster a Culture of Continuous Improvement and Learning
  - 4.6 Evaluate Team Performance and Adaptation Post-Change
- **5 Measuring and Sustaining Change Outcomes** — 6 classes
  - 5.1 Define Key Performance Indicators for Change Initiatives
  - 5.2 Collect and Analyze Data on Change Outcomes
  - 5.3 Evaluate the Impact of Changes on Team Dynamics
  - 5.4 Implement Continuous Feedback Mechanisms
  - 5.5 Develop Strategies for Sustaining Positive Change
  - 5.6 Create a Change Impact Report for Stakeholders

4 Process Mapping and Analysis

5 chapters · 30 classes **85 marks**

- **1 Fundamentals of Process Mapping** — 6 classes
  - 1.1 Define Process Mapping and Its Importance in Six Sigma
  - 1.2 Identify Key Elements of a Process Map
  - 1.3 Explore Different Types of Process Mapping Techniques
  - 1.4 Analyze a Process Using Flowcharting Methods
  - 1.5 Create Your Own Simple Process Map
  - 1.6 Evaluate and Improve a Process Map for Efficiency
- **2 Types of Process Maps and Flowcharts** — 6 classes
  - 2.1 Identify Key Elements of Process Maps
  - 2.2 Differentiate Between Types of Process Maps
  - 2.3 Construct Basic Flowcharts for Simple Processes
  - 2.4 Analyze Complex Processes Using Swimlane Diagrams
  - 2.5 Apply Value Stream Mapping to Identify Waste
  - 2.6 Create a Comprehensive Process Map for a Real-World Scenario
- **3 Tools and Techniques for Effective Process Mapping** — 6 classes
  - 3.1 Identify Key Process Components for Mapping
  - 3.2 Utilize Flowcharts to Visualize Processes
  - 3.3 Apply SIPOC Diagrams for Process Context
  - 3.4 Analyze Value Stream Mapping to Improve Efficiency
  - 3.5 Implement Swim Lane Diagrams for Clarifying Roles
  - 3.6 Develop Action Plans Based on Process Analysis
- **4 Analyzing Process Maps for Improvement Opportunities** — 6 classes
  - 4.1 Identify Key Components of Process Maps
  - 4.2 Interpret Process Symbols and Notations
  - 4.3 Analyze Current State vs. Future State Processes
  - 4.4 Detect Bottlenecks and Inefficiencies in Process Maps
  - 4.5 Evaluate Improvement Opportunities Using SWOT Analysis
  - 4.6 Develop Action Plans for Process Improvement Initiatives
- **5 Implementing Changes and Measuring Outcomes** — 6 classes
  - 5.1 Identify Key Areas for Process Improvement
  - 5.2 Develop a Change Implementation Plan
  - 5.3 Engage Stakeholders in the Change Process
  - 5.4 Execute Change Initiatives Effectively
  - 5.5 Measure Outcomes Using Appropriate Metrics
  - 5.6 Analyze Results and Refine Processes

5 Project Assessment and Reporting

5 chapters · 24 classes **45 marks**

- **1 Understanding Project Assessment Frameworks** — 6 classes
  - 1.1 Define Key Concepts in Project Assessment Frameworks
  - 1.2 Identify Components of Effective Project Assessment Models
  - 1.3 Compare Different Project Assessment Frameworks
  - 1.4 Evaluate the Suitability of Frameworks for Various Projects
  - 1.5 Analyze Real-World Case Studies Using Assessment Frameworks
  - 1.6 Develop a Project Assessment Report Using Chosen Framework
- **2 Identifying Key Performance Indicators (KPIs)** — 6 classes
  - 2.1 Define Key Performance Indicators (KPIs) in Project Management
  - 2.2 Explore the Importance of KPIs in Measuring Project Success
  - 2.3 Identify Different Types of KPIs Relevant to Various Projects
  - 2.4 Develop SMART Criteria for Effective KPIs
  - 2.5 Create a KPI Dashboard for Effective Project Monitoring
  - 2.6 Analyze Real-World Case Studies to Evaluate KPI Effectiveness
- **3 Data Collection and Analysis Techniques** — 6 classes
  - 3.1 Identify Key Data Collection Methods
  - 3.2 Explore Qualitative vs. Quantitative Data
  - 3.3 Implement Effective Sampling Techniques
  - 3.4 Utilize Data Collection Tools and Software
  - 3.5 Analyze Data Patterns and Trends
  - 3.6 Communicate Data Insights Through Reporting
- **4 Creating Effective Project Status Reports** — 6 classes
  - 4.1 Identify Key Components of Effective Status Reports
  - 4.2 Analyze Stakeholder Needs for Reporting
  - 4.3 Develop Clear and Concise Messaging Strategies
  - 4.4 Utilize Visual Data Representation Techniques
  - 4.5 Implement Best Practices for Report Structuring
  - 4.6 Evaluate Report Impact and Gather Feedback
- **5 Interpreting Results and Making Recommendations**

6 Statistical Tools for Quality Management

5 chapters · 30 classes **85 marks**

• 1 Understanding the Role of Statistics in Quality Management — 6 classes

- › 1.1 Define the Importance of Statistics in Quality Management
- › 1.2 Explore Key Statistical Concepts Relevant to Quality Control
- › 1.3 Interpret Data Types and Their Significance in Quality Analysis
- › 1.4 Analyze Common Statistical Tools Used in Quality Management
- › 1.5 Apply Statistical Methods to Real-World Quality Issues
- › 1.6 Evaluate the Impact of Statistical Decisions on Quality Outcomes

• 2 Descriptive Statistics for Quality Assessment — 6 classes

- › 2.1 Define Key Concepts in Descriptive Statistics
- › 2.2 Explore Measures of Central Tendency and Their Applications
- › 2.3 Analyze Measures of Dispersion: Range, Variance, and Standard Deviation
- › 2.4 Interpret Data Distributions Using Histograms and Box Plots
- › 2.5 Utilize Descriptive Statistics to Summarize Quality Data
- › 2.6 Apply Descriptive Statistics Tools in Quality Improvement Initiatives

• 3 Inferential Statistics and Hypothesis Testing — 6 classes

- › 3.1 Define Inferential Statistics and Its Importance in Quality Management
- › 3.2 Identify Key Concepts in Hypothesis Testing
- › 3.3 Differentiate Between Null and Alternative Hypotheses
- › 3.4 Explain the Steps Involved in Hypothesis Testing
- › 3.5 Apply p-Values and Confidence Intervals in Decision Making
- › 3.6 Analyze Case Studies to Illustrate Hypothesis Testing in Action

• 4 Control Charts: Monitoring and Control in Quality Management — 6 classes

- › 4.1 Define Control Charts and Their Purpose in Quality Management
- › 4.2 Identify Different Types of Control Charts and Their Uses
- › 4.3 Understand Key Components of Control Charts: Center Line, Control Limits, and Data Points
- › 4.4 Construct a Simple Control Chart Using Real Data
- › 4.5 Analyze Trends and Patterns in Control Charts for Process Improvement
- › 4.6 Implement Control Charts in a Quality Management Framework

• 5 Advanced Statistical Techniques for Quality Improvement — 6 classes

- › 5.1 Explore Control Charts for Process Stability
- › 5.2 Analyze Variation with Statistical Process Control
- › 5.3 Implement Capability Analysis for Quality Assessment
- › 5.4 Utilize Design of Experiments for Process Optimization
- › 5.5 Apply Hypothesis Testing to Validate Improvements
- › 5.6 Synthesize Findings into Actionable Quality Strategies