



Lean Specialist Training and Certification

Comprehensive Training in Lean Methodologies

March 2024

Course Overview

This program is designed to train professionals in Lean methodologies to improve efficiency, reduce waste, and enhance organizational performance. The course combines theoretical knowledge with practical applications, focusing on the unique challenges and opportunities across industries.

This self-paced eLearning program consists of 11 lessons, 11 quizzes, and a final exam at the end. Participants can progress through the material at their own pace, ensuring a flexible learning experience.

Lesson Structure

Each lesson includes:

- Video lectures
 - Reading materials
 - A quiz at the end of each lesson to reinforce learning
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Module 1: Introduction to Lean Principles

Lesson 1: Waste and Value

- Historical perspective on Lean
 - Introduction to Lean principles and the Toyota Production System
 - Types of waste (Muda) and their impact on operations
 - Identifying value from the customer's perspective
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Module 2: Value Streams

Lesson 2: Value Streams

- Definition and importance of value streams
- Value stream mapping: Current and future states
- Identifying and addressing waste in value streams
- Concepts like takt time and flow

Module 3: Achieving Perfection

Lesson 3: Perfection

- Philosophy of continuous improvement (Kaizen)
 - Lean's pursuit of perfection
 - Eliminating defects and achieving higher quality outcomes
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Module 4: Identifying Similarities in Processes

Lesson 4: Product Family Matrices

- Definition and purpose of product family matrices
 - Identifying similar processes and leveraging improvements
 - Creating and using product family matrices
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Module 5: Analyzing Movement

Lesson 5: Spaghetti Diagrams

- Creating spaghetti diagrams
 - Analyzing movement and identifying waste
 - Case studies of spaghetti diagram applications
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Module 6: Mapping Value Streams

Lesson 6: Value Stream Mapping (Current State)

- Creating current state value stream maps
- Identifying non-value-added activities
- Analyzing current processes to spot waste
- Takt Time, Cycle Time, VA/NVA Time (Value Added/Non-Value Added Time)

Lesson 7: Value Stream Design (Future State)

- Designing future state value stream maps
- Implementing improvements based on value stream analysis
- Transition planning and validating new processes
- Continuous Flow, Level Loading, Kanban Systems

Module 7: Designing Effective Work Processes

Lesson 8: Work Design

- Developing standard operating procedures
- Creating detailed work instructions
- Ensuring consistency and quality in work design
- Cycle Time, Work Element Analysis, Standard Operations Routine Sheet

Lesson 9: 5S

- Introduction to 5S methodology
 - Steps of 5S: Sort, Set in order, Shine, Standardize, Sustain
 - Implementing 5S in workplace settings
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Module 8: Reducing Setup Times

Lesson 10: SMED

- SMED (Single Minute Exchange of Die) concepts and techniques
 - Reducing setup and changeover times
 - Applications of SMED in operations
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Module 9: Continuous Improvement

Lesson 11: Continuous Improvement and Kaizen

- Philosophy of continuous improvement (Kaizen)
- Kaizen events and PDCA (Plan-Do-Check-Act)
- Humanizing the workplace and teaching the scientific method
- Implementing Kaizen
- Kanban Systems, PDCA, Jidoka (Autonomation)

Additional Resources and Tools

- Access to online forums

Certification Requirements

- Completion of all lessons and quizzes
- Passing the final certification exam

Course Duration: Up to 90 days to complete the course and take the exam

Mode of Delivery: Online, self-paced training (for live, instructor-led options, contact the Pyzdek Institute).

Target Audience: Professionals, administrators, and managers looking to improve efficiency and organizational performance through Lean methodologies.

Quiz Information

- Purpose of the quizzes: To reinforce learning and assess understanding of each lesson.
- Instructions: Access quizzes at the end of each lesson through the eLearning platform.

Final Exam Information

- Format: Multiple-choice questions covering all lessons.
- Requirements: Must be completed to receive certification.
- Instructions: Access the final exam through the eLearning platform upon completing all lessons and quizzes.

Support and Resources

- For technical support, contact support@pyzdek institute.com.
- For academic help, reach out through the eLearning platform.

Contact Information

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