



SIXSIGMAINDY

Yellow Belt Course Curriculum

Course Title: Six Sigma Yellow Belt: Transforming Processes and Results

16 Hours (4 Modules + Daily Review & Engagement Activities)

Course Overview

This course introduces participants to Lean Six Sigma fundamentals, tools, and mindset. It focuses on reducing variability, eliminating waste, and driving continuous improvement. Participants will learn structured problem-solving techniques, customer-focused strategies, and leadership skills to enhance process efficiency and quality.

Learning Objectives

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

- **Understand Lean Six Sigma Fundamentals**
 - Master core concepts that drive organizational excellence.
 - **Apply Lean Six Sigma Tools**
 - Effectively utilize various tools for problem solving and optimization.
 - **Learn the Quality Culture Concepts**
 - Discover the characteristics of a quality culture that focuses on internal/external customers and process improvement
 - **Develop Effective Problem Statements**
 - Formulate clear, concise problem statements to guide improvement efforts.
 - **Prioritize and sustain solutions**
 - Focus on the solutions that matter. You do not have the time nor the resources to focus on 5 solutions at one time or solutions that yield no to little impact.
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Course Syllabus

Module 1: Six Sigma & Lean Fundamentals (4 Hours)

- **Topics:**
 - History of Six Sigma and Lean
 - DMAIC vs DMADV
 - Industry Examples
 - What is Six Sigma? (DMAIC Framework)
 - Calculating Six Sigma
 - Common Six Sigma Principles
 - Decision-Making With and Without Six Sigma
 - Sigma Level Is Not a Final Indicator
 - What is Lean? (Value vs. Waste, Banana Analogy)
 - Lean Principles & 8 Wastes (TIMWOODS)
 - Module Recap, Review and Reflection
- **Activities:**
 - Puzzle Production Line Simulation
 - Banana Waste Identification Exercise
- **Key Takeaways:**
 - Six Sigma = Reduce variation
 - Lean = Eliminate waste
 - Continuous improvement mindset
 - Decision-making with data

Module 2: Basic Six Sigma Concepts and Quality (4 Hours)

- **Topics:**
 - Six Sigma Tools & Metrics (FTY, RTY)
 - Pareto Principle (80/20 Rule)
 - Voice of the Customer (VoC)
 - Critical to Quality (CTQ)
 - Challenges in Lean Six Sigma Implementation
 - Module Recap, Review and Reflection
- **Activities:**
 - Scrabble Game for FTY & RTY
 - VoC & CQT
 - Lean vs. Six Sigma Sorting Challenge
- **Key Takeaways:**
 - Data-driven decision-making



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- o Customer-centric improvements
- o Prioritizing efforts for maximum impact

Module 3: Problems and Processes (4 Hours)

- **Topics:**
 - o Crafting Effective Problem Statements
 - o Six Sigma and Other Formal Quality or Process Improvement Programs
 - o Understanding Processes ($Y = f(X)$)
 - o Process Ownership & Critical Success Factors
 - o Cost of Poor Quality (COPQ)
 - o Module Recap, Review and Reflection
- **Activities:**
 - o Problem Statement Practice
 - o Critical to Quality Tree
- **Key Takeaways:**
 - o Strong problem definition leads to better solutions
 - o The process (workflow) must be identified before solving problems
 - o Quality is critical for success

Module 4: Pulling It Together & Solving (4 Hours)

- **Topics:**
 - o SIPOC Overview
 - o DMAIC or A3 Worksheet
 - o 5 Whys Root Cause Analysis
 - o Solution Prioritization Matrix
 - o Module Recap, Review and Reflection
- **Activities:**
 - o 5 Whys Application
 - o Solution Ranking Exercise
 - o DMAIC or A3 Worksheet
- **Key Takeaways:**
 - o Use tools and frameworks to help teams pull concepts together
 - o Root cause analysis prevents recurrence
 - o Prioritize Solutions

Assessment & Certification



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- Attend 16 hours of instruction.
- Active participation in activities and discussions
- Completion of exercises
- 80% on exam
- Certificate of Completion: **Yellow Belt**

Resources

- Course slides and handouts
- Support resources: sixsigmaindy.org/yellow