



DEMING TRAINING CENTER
OPERATIONAL EXCELLENCE
FORMATION - RECRUTEMENT - CONSEIL

LEAN SIX SIGMA YELLOW BELT CERTIFICATION SYLLABUS

Program Code: LSS-YB / DTC-01

Duration: 16–20 hours (2–3 days intensive or 1 week blended)

Format: Online / On-site / Blended

Target Audience: Team Leaders, Technicians, Supervisors, Engineers, Administrators, and Professionals seeking Lean Six Sigma foundations.

Prerequisites: None (introductory level)

1. Program Objectives

At the end of the Yellow Belt program, participants will be able to:

- Understand the principles of Lean and Six Sigma.
- Contribute to process improvement projects within their organization.
- Recognize waste and variation in processes.
- Support Green Belt and Black Belt projects through data collection and team participation.
- Apply basic problem-solving and continuous improvement tools.

2. Learning Outcomes

Participants will be able to:

- Describe the DMAIC methodology and its phases.
- Explain the roles and responsibilities of Six Sigma professionals.
- Identify process inefficiencies using Lean concepts.
- Use basic tools for root cause analysis and performance measurement.
- Interpret simple data and process indicators (KPI, Pareto, Fishbone, etc.).

3. Course Structure (Modules Overview)

Module	Content	Tools / Techniques
Module 1 – Introduction to Lean & Six Sigma	History and philosophy of Lean & Six Sigma; Key differences; Customer focus (VOC); Waste and variation.	SIPOC, VOC Matrix
Module 2 – Organizational Roles & Structure	Roles (Champion, Black Belt, Green Belt, Yellow Belt); Responsibilities; Process ownership.	RACI Matrix
Module 3 – The DMAIC Cycle Overview	Define, Measure, Analyze, Improve, Control – key	PDCA, DMAIC, 5W2H



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	principles and deliverables.	
Module 4 – Lean Fundamentals	7 Wastes (Muda); Value Stream Mapping; 5S Methodology; Kaizen and Continuous Improvement.	5S, Kaizen, VSM
Module 5 – Basic Quality Tools	Pareto, Ishikawa, Check Sheets, Histograms, Flowcharts.	7 QC Tools
Module 6 – Process Performance and KPIs	CTQ, Process Capability basics, Sigma Levels, Performance dashboards.	Sigma Metrics, KPI Dashboard
Module 7 – Practical Workshop	Group exercise, DMAIC simulation, feedback.	DMAIC Simulation
Module 8 – Assessment and Certification	Final exam (50 questions), feedback and evaluation.	Exam / Review

4. Teaching Methodology

- Blended learning: theory + simulation-based exercises.
- Interactive workshops: teamwork, brainstorming, and process analysis.
- Visual tools: infographics, videos, and checklists.
- Assessment: formative quizzes and final certification exam.

5. Assessment & Certification Requirements

Knowledge Examination – 70% (50 multiple-choice questions, 1 hour)

Participation & Exercises – 30% (Group simulation and involvement)

Passing Score: 70%

Certificate: Lean Six Sigma Yellow Belt – Deming Training Center

6. Instructor Credentials

All instructors are Certified Six Sigma Black Belts or Master Black Belts with:

- Over 10 years of industrial and consulting experience.
- Proven expertise in Lean transformation and project deployment.
- Accreditation aligned with ISO 17024 and CSSC frameworks.



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7. Reference Materials

- ISO 13053-1/2: Quantitative Methods in Process Improvement
- ISO 18404: Competencies for Key Personnel and Their Organizations in Relation to Six Sigma and Lean Implementation
- The Lean Six Sigma Pocket Toolbook – George, Rowlands & Price
- Deming Continuous Improvement Manual – DTC Edition

8. Certification Award

Upon successful completion, the participant receives:

Certificate of Achievement – Lean Six Sigma Yellow Belt

Delivered by Deming Training Center and aligned with international Six Sigma standards.