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Learning Style: Virtual Classroom

Technology:

Difficulty: Intermediate

Course Duration:

Lean Six Sigma Green Belt

About This Course:

The Lean Six Sigma Green Belt course is designed for professionals seeking to improve processes, reduce waste, and enhance efficiency within their organization. This intermediate-level program blends the powerful tools of Lean and Six Sigma, equipping participants with the skills to lead and support data-driven improvement projects.

Course Objectives:

- History and principles of Lean Six Sigma
- Overview of DMAIC methodology
- Benefits of Lean Six Sigma in business
- Lean vs Six Sigma: how they work together
- Belt levels: White, Yellow, Green, Black
- Role of the Green Belt in project teams
- Working with stakeholders and sponsors
- Cross-functional team collaboration
- Understanding and identifying the 7 Wastes (TIMWOOD)
- Lean principles and flow
- Introduction to 5S methodology
- Applying Lean to streamline processes
- Purpose and benefits of Value Stream Maps
- Current state vs future state mapping
- Identifying bottlenecks and inefficiencies
- Hands-on mapping exercise
- Selecting and scoping improvement projects
- Business case development
- Project charter and team structure
- Introduction to stakeholder analysis
- Voice of the Customer (VOC) and Critical to Quality (CTQ)
- SIPOC diagram
- Problem statements and goal setting
- High-level process mapping

- Developing measurement plans
- Types of data: continuous vs discrete
- Data collection techniques
- Baseline performance and process capability
- Root cause analysis: 5 Whys, Fishbone diagram
- Pareto analysis
- Graphical analysis tools (Histograms, Boxplots)
- Introduction to basic statistics
- Brainstorming and solution selection
- Prioritization tools (Impact/Effort Matrix)
- Pilot testing improvements
- Lean tools for process optimization
- Control plans and sustaining improvements
- Introduction to control charts
- Standard operating procedures (SOPs)
- Visual management and documentation

Audience:

- Professionals involved in quality control, operations, or continuous improvement
- Team leaders and supervisors seeking to improve business processes
- Project managers looking to apply Lean Six Sigma tools to real-world challenges
- Engineers, analysts, and process owners working in manufacturing, healthcare, IT, services, and other industries

Prerequisites:

- A basic understanding of business processes and data interpretation

- An interest in process improvement and problem-solving
- Proficiency with Microsoft Excel or similar tools (recommended)

Course Outline:

- Introduction to Lean Six Sigma
- Roles and Responsibilities in a Lean Six Sigma Organization
- Lean Thinking and Waste Elimination
- Value Stream Mapping
- Project Selection and Planning
- Define Phase
- Measure Phase
- Analyze Phase
- Improve Phase
- Control Phase