



#### **COURSE OVERVIEW**

The essence of DFLSS is to ensure design quality and predictability during the early design phases. The approach employs a structured integrated product development methodology and a comprehensive set of robust tools to drive product quality, innovation, faster time to market, and lower product costs.

Plan for Lean Six Sigma is a strong effective way to deal with guarantee that assembling cycles and items are planned with high caliber and dependability to meet the client and market desires. The plan of items and cycles is the obligation of all capacities over any association due to that the course handles different zones; development, understanding and deciphering client needs, hazard and money related evaluations, lean tasks and get together methods, measurable plan instruments and unavoidably support, development and sustainment.

#### WHO CAN ENROLL

Product development R&D professionalsa

#### **COURSE** FEATURES

6 CEU.

LSS leaders, Green belts and black belts.

Executives that lead innovation and strategies formulation.

Material included in course cost.

## DESIGN FOR LEAN SIX SIGMA



### **LEARNING OUTCOME**

- Understand the overlap between DFLSS & DFSS (Design for Six Sigma).
- Learn and Apply the DMADV (Define-Measure-Analyze-Design-Verify) methodology
- Learn and Apply the DMAIC (Define- Measure -Analyze-Improve-Control) and develop the ability
- when to use the DMAIC approach and when to use DMADV.
- Create a risk and financial assessment for the project.
- Acknowledge each function responsibility in product and process design.
- Refer to several decision-making models.
- Create a design Scorecard.
- Create process maps, describe elements, road maps and project milestones and timelines.
- Implement and analyze a designed experiment.
- Learn techniques such as Monte Carlo simulation to forecast output variability and analyze data reliability.
- Understand concepts of design of a manufacturing process.
- Create inventory and service methods based on Market demand.
- Predict strategies to maintain processes and ensure sustainment and growth of product.

**DESIGN FOR LEAN SIX SIGMA** 



#### **COURSE OUTLINE**



- Design for Lean Six sigma overview
- Process and product design approach
- DMADV vs. DMAIC
- Project management basics
- Project Risk assessment
- Financial analysis- Cost benefit analysis
- Customer expectation and needs
- Translating needs into design
- Innovation
- Decision making and concept selection (Pugh Matrix)
- Lean operations and design principles
- Mistake proofing
- Design: complete and Tolerance
- Process Flow
- FMEA
- Piloting
- Process and needs synchronization
- Startups with DFLSS

## **DESIGN FOR** LEAN SIX SIGMA



#### HOW TO IMPLEMENT DESIGN FOR SIX SIGMA

As previously mentioned, DFSS is more of an approach to product design rather than one particular methodology. There are some fundamental characteristics that each of the methodologies share. The DFSS project should involve a cross functional team from the entire organization. It is a team effort that should be focused on the customer requirements and Critical to Quality parameters (CTQs).

The DFSS team should invest time studying and understanding the issues with the existing systems prior to developing a new design. There are multiple methodologies being used for implementation of DFSS. One of the most common techniques, DMADV (Define, Measure, Analyze, Design, Verify), is detailed below.

- Define
- Measure
- Analyze
- Design
- Verify











## **DESIGN FOR** LEAN SIX SIGMA



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