



Design for Six Sigma

Course Description

Design for Six Sigma (DFSS) applies six sigma principles to the product development process. DFSS combines statistical tools, such as Design of Experiments, with classic design tools such as Quality Function Deployment and Concept Generation to provide a methodology that ensures the right product is developed and that the business is fully prepared to successfully operationalize the product. The DFSS methodology provides a systematic process for development of the design process.

DFSS has five phases, referred to as **DMADV**:

Define - basic product gaps are defined from a market and business strategy perspective.

Measure - specific product performance targets are set based upon measuring the customer planned use of the product.

Analyze - concepts, both product and business operations, are evaluated to determine the approach for development

Design - product and business operations processes are designed in detail

Verify/Validate - product and processes undergo verification and validation with both the customer and appropriate regulatory bodies, so as to create a baseline of both product and processes that are ready for market introduction and can be statistically controlled.

PPI's Design for Six Sigma program is a five day, non-sequential course, focusing one day on each of the five DFSS phases. A case study tailored for the company is used and allows participants to practice the techniques that are appropriate for each of the five phases.

Topics Covered

- Principles of Variations and Control
- Customer Needs Identification and Measurement of Customer Expectations
- Concept Generation and Risk Analysis
- Product Development Best Practices
- Product and Process Verification and Validation Best Practices