



► DFSS for Transactional Environments

A specialized methodology designed to foresee and eliminate potential defects before and during new process design

Service businesses are a key driver of today's economy – making up almost 80 percent of the U.S. gross domestic product. Organic growth in this sector is largely dependent on the development of breakthrough services and value-added offerings. Yet sadly, fewer than 50 percent of service organizations employ a formal method of service or process development. This can lead to inefficient resource utilization, failed service launches and even dissatisfied customers. Design for Six Sigma (DFSS) is a powerful problem-solving methodology aimed at tackling this challenge.

Course Description

BMGI's Transactional DFSS program delivers a thorough education on the DMADV (Define-Measure-Analyze-Design-Verify) methodology and helps companies master a variety of techniques to better design processes in a transactional environment.

Especially important is the "Design" phase of DMADV, where the class uses process modeling and simulation, queuing analysis and demand forecasting, followed by pilot studies. All of the topics covered are universally applicable to the design of operational, transactional and service processes.

BMGI's DFSS training is built around the idea that "design" is a truly cross-functional undertaking, not simply the sole responsibility of the "process designer." While statistical design tools are an integral part of this course, the importance of VOC (Voice of the Customer), financial analysis and supplier selection are also emphasized.

BMGI's DFSS instructors have extensive experience in leading, training and coaching DFSS teams from a wide variety of industries worldwide. All of our instructors are certified Master Black Belts with an average of five years experience leading successful Six Sigma projects within major corporations.

This class is a fundamental component of BMGI's comprehensive MBB Certification program and is highly recommended for MBB candidates.



"Our class participants thoroughly enjoyed DFSS training. This has been the favorite of the additional classes that we have taken from BMGI."

- Carolyn Thaman
Black Belt
Standard Register

AT A GLANCE

Course Length:

5 consecutive days

Who Should Attend/Prerequisites:

Six Sigma Black Belts or Green Belts who have an understanding of both ANOVA and regression, and have completed at least one project.

Course Includes:

Training manual, data files and DFSS templates.

Course Requirements:

Participants need a laptop computer running Minitab

Agenda

The course agenda is organized into four content areas:

- ❑ Introduction to DFSS and the DMADV methodology
- ❑ Launching and leading DFSS projects
- ❑ Voice of the Customer
- ❑ Statistical design tools

(continued)

KEY LEARNING OUTCOMES

At the end of this class students will be able to:

- ❑ Use the DMADV methodology to complete DFSS projects
- ❑ Discern between DMADV and DMAIC project opportunities
- ❑ Complete a project financial analysis
- ❑ Complete a project risk analysis
- ❑ Analyze a QFD
- ❑ Select concepts based on a Pugh Matrix
- ❑ Complete a design scorecard
- ❑ Describe the elements of a process and the transactional roadmap
- ❑ Predict output variability using techniques such as Monte Carlo simulations
- ❑ Predict service levels based on resource decisions
- ❑ Define inventory policies based on desired service levels

DFSS for Transactional Environments

Agenda

► Day One

- ❑ Why Design Projects Fail
- ❑ Manufacturing vs. Transactional Processes
- ❑ DFSS Defined
- ❑ DFSS vs. DMAIC
- ❑ Integrating DFSS with Existing Design Methodologies
- ❑ DMADV Methodology
- ❑ Project Risk Analysis
- ❑ Design Project Financial Analysis

► Day Two

- ❑ Capturing the Voice of the Customer (VOC)
- ❑ Translating the VOC into Design Requirements
- ❑ Quality Function Deployment (QFD)
- ❑ Pugh's Method for Concept Selection
- ❑ Design Scorecards

► Day Three

- ❑ Business Process Simulation Exercise
- ❑ Process Design Roadmap
- ❑ Process Flow Elements

► Day Four

- ❑ Predicting Output Variability
- ❑ Service Operation Statistics

► Day Five

- ❑ Designing Resource and Inventory Policies to Manage Flow Variability
- ❑ Designing Capacity Policies to Manage Flow Variability
- ❑ Lean Process Design

BMGI holds this class regularly in cities around the world.

Classes can also be scheduled onsite for groups of six or more.

Curriculum is available for licensing.

Product DFSS vs. Transactional DFSS



There are two BMGI DFSS classes – Product Design and Transactional. Both courses follow the DMADV problem-solving methodology and have the same deliverables.

In the Product Design course, parameter and tolerance analysis generate specifications that drive the purchase of capital equipment and the selection of raw material and part suppliers.

In the Transactional course, external customer and internal

business requirements drive cycle time, throughput and inventory objectives that are satisfied through the definition of resource requirements, policies and procedures and tasks.

While the first two days of training are similar for both classes, the last three days are different. The Design phase is where the biggest differences in tools and techniques are seen. In Product Design, students learn a variety of DOE techniques, along with reliability and DFMA analysis. In Transactional, traditional DOE methods are less applicable; we replace them with process modeling and simulation, queuing analysis, demand forecasting and pilot studies.



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