

# Motorola Design for Six Sigma® for Software & IT



## Program Participants

This program is for individuals new to Six Sigma and for Six Sigma practitioners who need to expand the application of Six Sigma into software and technology domains.

All participants will gain a clear understanding of the principles, practices and applications of Six Sigma methodologies for software and technology and will be prepared to evaluate the potential impact of Six Sigma to their software or IT organizations. Participants who begin the session with a solid background in the DMAIC model will build on this foundation and leave the session ready to rapidly implement Six Sigma projects bound for success in software and IT areas.

## Program Overview

Participants learn a structured methodology and practical set of tools for improving and developing software and information technology products.

The following Six Sigma methodologies and their application to software and technology domains provide the framework for learning:

- Design for Six Sigma - the DMADV model \*
- Six Sigma Process Improvement - the DMAIC model \*\*

The power of these methods and tools will enable you to reduce cycle time, improve quality, lower costs, and to ensure smooth implementations for software and technology products.

## Program Length

Five days

## Software

Participants need to bring a laptop computer preloaded with Microsoft Excel (required).

MINITAB® is desirable (optional).

\*The **DMADV** model is a structured methodology used to develop new products, services, and processes. It consists of five phases:

- **Define Requirements**
- **Measure Performance**
- **Analyze Relationships**
- **Design Solution**
- **Verify Functionality**

\*\*The **DMAIC** model is a systematic method for analyzing and improving existing issues and problems. It consists of five phases:

- **Define Opportunity**
- **Measure Performance**
- **Analyze Causes & Drivers**
- **Improve Performance**
- **Control Results**

### Sustaining Improvements...

Our new and unique *Integrated Roadmap Model* assures a closed loop system between resolution of today's issues while preventing reoccurrence in future products, services & releases.



**MOTOROLA  
UNIVERSITY**



**SIX SIGMA ADVANTAGE, INC**  
Six Sigma Third Wave™

[www.6sigma.com](http://www.6sigma.com)

**SCHEDULE/PHASE**
**TOPIC/ACTIVITIES**
**Day 1**
**Six Sigma Software Foundations**
**DFSS Define**

- Gather better Voice of the Customer (VOC) data
- Understand the target environment
- Identify stated and latent requirements and measures
- Prevent “Requirements Failures”

**DFSS: Measure**

- Prioritize Critical to Quality (CTQ) requirements
- Build the CTQ measurement system
- Prepare to flow-down CTQs
- Explore Integration of Use Cases and Measures

**Day 2 & 3**
**DFSS Analyze**

- Characterize feature mix choices
- Understand implementation choices per the Voice of the Business (VOB)
- Select an implementation plan
- Prevent “Expectations Failures”

**DFSS: Design/Build, DFSS Verify**

- Analyze design gap: QFD and FMEA
- Integrate with software domain tools
- Track and manage capability
- Prevent “Execution Failures”

**Day 3 & 4**
**DMAIC: Define**

- Develop project charter
- Understand CTQ requirements and critical processes

**DMAIC: Measure**

- Define performance standards
- Segment the project ‘Y’
- Identify factors and measures

**DMAIC: Analyze**

- Identify significant segments
- Contain defects - Defect Cost Scorecard
- Verify root causes

**DMAIC: Improve**

- Identify solution alternatives
- Inspections and reviews
- Pilot with results & measures
- Leverage industry best practices and standards

**Day 5**
**DMAIC: Control**

- Develop a control plan
- Develop measurement system dashboards
- Implement process control - sustain the gains

**Deployment issues**

- Six Sigma culture shifts
- Roles and responsibilities
- Deployment success factors

**Taking the  
Next Step**

Please contact us for more information by visiting [www.motorola.com/mu](http://www.motorola.com/mu)  
or by calling **1-800-446-6744** (toll-free within the U.S.)  
or **1-847-576-1310** (from outside the U.S.).