

# SIX SIGMA – GREEN BELT Training Program



This nationally recognized Six Sigma Greenbelt training program encompasses all aspects of running a Six Sigma Greenbelt business; including management, service delivery, design, production and customer satisfaction. Six Sigma is one of the highest standards for companies and individuals to achieve. This interactive training provides the skills needed to master this highly valuable skill. All materials included.

**This Program is ideally suited to following individuals who are:**

- **Working Class who are involved in the Quality Management Systems**
- **Organization who would like to achieve the highest level of quality**
- **People who are looking a career job in field of quality management systems and would become a consultant in the six sigma field.**

**Program is offered by: 3D Educators – Trainers & Consultants**

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**3D EDUCATORS**

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**TRAINERS & CONSULTANTS**

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# Program Details

## Inauguration

The Training Program will be inaugurated by a senior member of 3DEducators

## Program Structure

Duration of each class	2-Hour
Classes Per Week	2 Classes
Total Duration	32 Hours

## Other Learning Activities:

Classroom Assignments	4
Presentations by Trainees	1

## About the Program Designer & Instructor

- ✓ The “Six Sigma – Green Belt” Program has the international designed certification and will be conducted by the huge and vast experience trainer and consultant.

They trainers are foreign qualified and having the degree & certification of Ph.D, MBA, MSc.

As Consultant & Senior Trainers the team of trainers from Engineering side we **3D Educators – Trainers & Consultants** would not compromise on the faculty.

# Program Syllabus

## **COURSE OUTLINE:**

### **I. Why Six Sigma?**

- a. Definition and Graphical View of Six Sigma
- b. Comparisons Between typical TQM and Six Sigma Programs
- c. Origins and Success Stories

### **II. How to Deploy Six Sigma**

- a. Description of the Roles and Responsibilities
- b. Project Focus
- c. Overview of DMAIC Methodology

### **III. DEFINE: Project Definition**

- a. Define Objectives
- b. Work Breakdown Structure
- c. Pareto Diagrams
- d. Process Maps
- e. Matrix Diagrams
- f. Project Charters
- g. Reporting

### **IV. DEFINE: Project Scheduling**

- a. Activity Network Diagram
- b. PERT Analysis
- c. GANNT Chart

### **V. DEFINE: Change Management/Teams**

- a. Problems with Change
- b. Achieving Buy-In
- c. Team Formation, Rules, and Responsibility
  - i. Stages of Team Development
  - ii. Overcoming Problems
- d. Consensus Building Tools
  - i. Affinity Diagram

- ii. Nominal Group Technique
- iii. Prioritization Matrix

**VI. MEASURE: Tools and Objectives**

- a. Objectives
- b. Flowcharts
- c. Process Maps
- d. SIPOC
- e. Box-Whisker Plots
- f. Cause and Effect Diagrams
- g. Check Sheets
- h. Interrelationship Diagram
- i. Stem and Leaf Plots

**VII. MEASURE: Establishing Process Baseline**

- a. Enumerative v. Analytic Statistics
- b. Process Variation
- c. Benefits of Control Charts
- d. Requirements v. Control
- e. Control Chart Interpretation

**VIII. MEASURE: X-Bar Charts**

- a. Uses
- b. Construction and Calculations
- c. Assumptions
- d. Rational Subgroups
- e. Sampling Considerations
- f. Interpretation

**IX. MEASURE: Individuals Data**

- a. Uses
- b. Construction and Calculations
- c. Assumptions
- d. Sampling Considerations
- e. Interpretation
- f. Overview of Other Individuals Charts

- i. Run Charts
- ii. Moving Average Charts
- iii. EWMA Charts
- iv. CuSum Charts

**X. MEASURE: Process Capability**

- a. Histograms
- b. Probability Plots
- c. Goodness of Fit Tests
- d. Capability and Performance Indices
- e. Relative to Process Control
  - i. Interpretation
  - ii. Estimating Error

**XI. MEASURE: Attribute Charts**

- a. Uses
- b. Selection
- c. Construction and Calculations
- d. Sampling and Considerations

**XII. ANALYZE: Lean Thinking**

- a. Definition of Waste
- b. Analyzing Processes for NVA
  - i. Cycle Effencies
  - ii. Lead Time and Velocity
- c. Methods to Increase Velocity
  - i. Standardization
  - ii. Optimization
  - iii. Spaghetti Diagrams
  - iv. 5S
  - v. Level Loading
  - vi. Flow
  - vii. Setup Reductions

**XIII. ANALYZE: Introduction to Regression Analysis**

- a. Scatter Diagrams

- b. Linear Model
- c. Interpreting the ANOVA Table
- d. Confidence and Prediction Limits
- e. Residuals Analysis
- f. Overview of Multiple Regression Tools

**XIV. IMPROVE: Tools and Objectives**

- a. Improve Stage Objectives
- b. Tools to Prioritize Improvement Opportunities
- c. Tools to Define New Process Flow
- d. Tools to Define and Mitigate Failure Modes
  - i. PDPC
  - ii. FMECA
  - iii. Preventing Failures
- e. Reference to Tools for Defining New Process Levels

**XV. CONTROL: Tools and Objectives**

- a. Control Stage Objectives
- b. Control Plans
- c. Training
- d. Measuring Improvement

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