

# **CERTIFIED LEAN SIX SIGMA – GREEN BELT**

## **International Certification USA**

### **Who can do?**

- 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.

**100,000+ Students  
have been Trained**

**since  
1997**

**Program is  
offered by**

**3D EDUCATORS  
INT**  
22 Years of  
Excellence in  
Training &  
Development

**Invest in  
People the  
only Asset  
that Appreciates**



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## Program Details

### Inauguration

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

### Program Structure

Duration of each class	<b>02 – Hour</b>
No of classes per week	<b>2 Classes</b>
Total Hours	<b>48</b>

### Other Learning Activities

Classroom Assignment	<b>12</b>
Project by Trainees	<b>03</b>

### About the Program 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, and MSc.

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

### In Affiliation with





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## **COURSE OUTLINE OF GREEN BELT:**

### **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?**

- d) Description of the Roles and Responsibilities
- e) Project Focus
- f) 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



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#### **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



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## **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



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## **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



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### **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



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### **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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## **Terms & Conditions**

### **WITHDRAWAL FROM THE DIPLOMA/CERTIFICATION**

Students are not allowed to withdraw from the Diploma. If a student cannot continue the Diploma his/her fee will be forfeited.

### **CONDUCT AND DISCIPLINE**

A disciplinary action, leading to rustication, will be taken against students whose conduct is found objectionable at any time during the course of study. Reference will be made to 3D Educators code of conduct.

### **EVALUATION AND GRADING**

The performance of students is evaluated through continuous observation of a student's performance in the Diploma – class participation, submission of assignments, quizzes and exercises.



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The student will be examined through three hourly exams conducted at the midterm and a final exam at the end of the program. Total marks for passing the Diploma will be 60 out of a total of 100.

Students who do not meet the attendance or any other eligibility criteria will not be allowed to appear in the final examination.

The following grading plan will be applicable for the Diploma:

<b>A</b>	<b>87 - 100</b>
<b>B+</b>	<b>81 - 86</b>
<b>B</b>	<b>72 - 80</b>
<b>C+</b>	<b>66 - 71</b>
<b>C</b>	<b>60 - 65</b>
<b>F</b>	<b>below 60</b>



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Students who are unable to appear for the final exam are required to submit a written application stating the reason for not appearing for the exam. 3D Educators reserves the right to approve or deny such applications. If approved, the student will be allowed to sit for the exam within one month. Failure to do so, the student will be resubmit the examination fee and sit the future schedule exam. Without passing of the exams no certification will be awarded.



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### **ONLINE LIVE CLASSES FACILITY AVAILABLE**

- Instructor Led Training
- Real Time Presentations
- Interactive Classes
- Complete Notes and Other Stuff shall be provided through our Secure Student Login Member's Area
- For Online Live Classes, you may please download the Admission Form through our website <http://www.3deducators.com>. Fill it properly and attached the required document along with Picture and send back to [info@3deducators.com](mailto:info@3deducators.com) with scanned fee submitted voucher in the bank.
- For Pakistan you may submit the fee at any MCB Branch with the title of "3D EDUCATORS-TRAINERS & CONSULTANTS".
- If you are outside Pakistan then you may transfer via Bank to Bank or any western union, Fast Track, Money Gram or else International Transfer Body.
- After Admission, if you don't have GMAIL Account then you are requested to kindly make one GMAIL Account and shared it [info@3deducators.com](mailto:info@3deducators.com). Then further correspondence shall be made by our institute official.
- Extra Bandwidth Charges shall be incurred.

### **DISTANCE NOT MATTER**

You can join in the live classes Sessions of 3D EDUCATORS – TRAINERS & CONSULTANTS from anywhere of the world.



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### **PRECAUTIONARY MEASURES**

- During Classes, you are requested to make sure that you are in isolated room, where no noise should be there except your voice.
- Kindly Switch Off your Cell Phone during the class, because it will disturb the quorum of class.
- If you have taken the admission in the course online lonely, then ethically it is recommended and suggested that you alone in the class.
- Recording of Lectures are not allowed at your end.

This world is emerging and growing in the 21st Century very rapidly because of latest and remarkable technologies and its advancement. Due to advancement of technology, we 3D EDUCATORS offer Live Interactive class sessions

3D EDUCATORS believe on Information Technology and its systems. Now you can also avail this facility at your home.

### **CONTACT US**

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021-34857148

info@3deducators.com  
<http://www.3deducators.com>

Get the Admission Form

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**MANAGEMENT  
3D EDUCATORS  
TRAINERS & CONSULTANTS**



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**Global Recognized Certification from IMRTC USA**

**CERTIFICATE  
OF EXCELLENCE**

IMRTC USA Recognized  
**CERTIFICATION**



*This is to Certify That*  
**Mr. Danny Jones Wales**  
*has successfully met the certification requirements as outlined in  
IMRTC content and the policies adopted thereunder, hereby grants the certification of*

**Six Sigma Green Belt**

Student ID: IM864532201

Date of Commencement: May 4, 2014

Date of Ending: July 4, 2014



*Cheryyel Rhodes*

Principal of Institute

Director Affiliations and Official Affairs

**INTERNATIONAL MANAGEMENT RESEARCH & TECHNOLOGY CONSORTIUM**  
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