



# Quantum Leap Engineering

## COMPANY AND INSTRUCTORS:

Quantum Leap Engineering Inc. (QLE), is a systems integration group specializing in training and implementation of Six Sigma; Lean; Lean-Six Sigma; Design for Six Sigma (DFSS); Kaizen Events; Value Stream Mapping; Product & Process Cost Reduction; Supply Chain Programs and 5S programs. QLE provides public workshops and on-site training and consulting. Workshops in Statistical Methods, Statistical Process Control, Measurement System Analysis, Design of Experiments and others can be adapted and designed to meet your company's specific employee training requirements.

**Sean, P.E., CSSBB**, has over 25 years of operational, quality and engineering experience. He specializes in training and implementing Lean-Six Sigma Methodology and using Kaizens to accelerate the implementation of Lean-Six Sigma projects. Sean has a Master's degree in Engineering, is a graduate of the Business Management Program from MIT's Sloan School, is a registered Professional Engineer (PE) and a Lean-Six Sigma Master Black Belt.

**Mike, Ph.D.**, has over 30 years of experience in statistics. He specializes in Stats and DOE and trains companies in continuous improvement programs and quality system development/implementation.

"We learned a tremendous amount from your training. The Six Sigma projects were a great way to apply the tools and save the company money immediately-3 month payback."

Vice President of Operations

## REGISTRATION

Register at [www.SixSigmaPlusLean.com](http://www.SixSigmaPlusLean.com) or Fax Form to 508-643-7337

Name: \_\_\_\_\_ Title: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Business Phone: \_\_\_\_\_ Fax: \_\_\_\_\_

E-Mail: \_\_\_\_\_

Course cost is \$895.00



# Quantum Leap Engineering

## 2-Day Design of Experiments Workshop

June 21st - June 22nd, 2010

Where:  
Southboro/Framingham  
Massachusetts  
(Junction of Rt. 495 & Rt. 9)

Lean + Six Sigma = Quantum Leaps in  
Efficiency and Profitability

TELEPHONE: 508-954-0185



## 2 DAY DESIGN OF EXPERIMENTS WORKSHOP

Design of Experiments (DOE) is one of the most powerful statistical tools to achieve an optimal process. This 2 day class introduces the theory and application of Design of Experiments. Full factorial and fractional experiments will be taught in the class. Minitab 15, a statistical software package, will be used in the class to layout the experiment and analyze the data to strive for an optimal solution.

At the end of the class, the student will understand the theory of DOE and have the capability of running and analyzing an experiment in Minitab 15. Since DOE has numerous techniques (i.e. Plackett-Burman, RSM, Central Composite, Mixture Designs), Quantum Leap Engineering also offers an intermediate and an advance class in DOE.

*"Quantum Leap Engineering is very effective both at teaching the continuous improvement tools and working with the company to implement the changes. Our management demands ROI and that's what Quantum Leap Engineering delivers."*

Plant Manager

## DESIGN OF EXPERIMENTS (DOE) COURSE OUTLINE

### I. Overview of Design of Experiments

- Introduction to Optimizing Solutions
- Determine main effects and interactions

### II. Introduction to Factorial Designs

- Full Factorial Designs
- Using Minitab to Analyze Full Factorial Designs
- Use Center Points to Determine Curvature

### III. Introduction to Fractional Factorial Designs

- Fractional Factorial Designs
- Using Minitab to Analyze Fractional Factorial Designs
- Screening Design of Experiments

### IV. Design of Experiments Exercises in Minitab

- Create and Analyze DOE Experiments



**COURSE COST IS \$895**

**Cost includes a 30 day access to Minitab 15 Software**

**Call Sean Anzuoni for additional information at 508-954-0185 or**

**E-mail [Sean@QuantumLeapEng.com](mailto:Sean@QuantumLeapEng.com)**

**Fax or Mail Registration to:**

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**North Attleboro, MA 02763**

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**Phone (508) 954-0185**

**Please make checks payable to:  
Quantum Leap Engineering, Inc.**

**See [www.SixSigmaPlusLean.com](http://www.SixSigmaPlusLean.com)  
for other course offering.**