

# Quality & Productivity Solutions, Inc.

ADMIN: One Sunny Hill, Oxford, MA 01540 Phone: (508) 987-3800 Fax: (508) 987-1464

TRAINING CENTER: The QPS Institute - Cedar Hill Place - 225 Cedar Hill Street - Floor 3 - Marlborough, MA 01752

Email: [info@qpsinc.com](mailto:info@qpsinc.com) Website: [www.qpsinc.com](http://www.qpsinc.com)

## **Lean Six Sigma Black Belt Certification Training Plan**

### **Course No. 118 / DET Course ID: 1037639**

This course consists of a series of courses, all which prepare students to be experts in Quality, Business Improvement and Project Management in addition to being ready to take new challenges in the manufacturing, software or service businesses. It contains the following courses: Lean Six Sigma Green Belt Certification, Six Sigma Black Belt Certification Training, and Lean Experts Certification

### **Type of Training**

Classroom, Exercises, Workshops & Coaching; No additional charge for additional one on one coaching. **GUARANTEED SATISFACTION.** There are a total of three exams to be taken, each exam on the last day of each course.

### **Courses**

1. Lean Six Sigma GB Certification – (QPS Course # 113A)
2. Six Sigma Black Belt – (QPS Course # 114)
3. Lean Experts Certification – (QPS Course # 124)

### **Prerequisites**

Quality Concepts, High School Education

### **Expected Outcome**

- Lean Sigma Green Belt certification, upon completion of the exam
- Black Belt Certification (A certificate is provided upon successful completion of the exam, a second certificate is provided upon successful completion of the Project Report once the project is complete)
- Lean Certification (A certificate is provided upon successful completion of the exam and the project. The Project is Visual 5S which can be done in less than 20 hours).

### **Duration**

Full time (8 weeks, averaging 26 hours per week). Time includes Minitab and Project Workshop.

### **Total Cost**

\$10,000

### **Registration**

QPS Training Administrator, Pam Martel (E-mail: [info@qpsinc.com](mailto:info@qpsinc.com)) will notify you by e-mail all dates and times after approval from the State. QPS will ensure you are served whenever needed during the training period.

### **Lead Instructors**

Jay Patel (cell 508-579-1006, [jayp@qpsinc.com](mailto:jayp@qpsinc.com))

Jack Reardon (cell 857-204-5589, [jackr@qpsinc.com](mailto:jackr@qpsinc.com))

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*Experts in Lean Six Sigma, Management System, Supply Chain, Project Management and Professional Development*

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## Lean Six Sigma Green Belt Certification

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### Course No. 113A

This course is designed for personnel who desire Lean Six Sigma backgrounds and Green Belt Certification. This course is based on ASQ's Green Belt Certification body of knowledge and covers all Lean Six Sigma aspects. Green Belts support Black Belts and also conduct small projects for improvement.

### Course Benefits

Attendees learn to integrate Lean Six Sigma methodologies, to implement breakthrough improvements, to manage small scale Six Sigma projects and to support Black Belts in the deployment of Six Sigma techniques to achieve bottom-line success.

### Prerequisites

None

### Certification Requirements

Participants are required to participate in exercises and workshops in class and to successfully complete a written examination at the end of the class.

### Topics Covered:

#### Lean: Session 1 (4 Days)

- ✓ How to Implement Lean
- ✓ Lean Concepts
- ✓ Value Stream Mapping workshop
- ✓ Kaizen Implementation
- ✓ Standards of Work

#### Six Sigma: Session 1 (5 days)

- ✓ Lean Six Sigma Orientation
- ✓ Performance Metrics
- ✓ Teambuilding
- ✓ Project Charter
- ✓ SIPOC
- ✓ Stakeholder Analysis
- ✓ Define Phase
- ✓ Measure Phase
- ✓ Process Mapping
- ✓ Basic Statistics Using QI Macro
- ✓ Process Capability
- ✓ FMEA
- ✓ Gauge R & R
- ✓ Analyze Phase
- ✓ Improve Phase
- ✓ Control Charts

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## **Six Sigma Black Belt Certification**

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### **Course No. 114A**

This course is based on ASQ's Body of Knowledge and follows the DMAIC model. It provides instruction in the tools and techniques and the soft skills needed to effectively lead projects.

### **Course Benefits**

Attendees learn to implement breakthrough improvements, to lead Six Sigma projects, to support management in the deployment of Six Sigma, and to use Six Sigma tools and techniques to achieve bottom-line success.

### **Topics Covered**

SESSION TWO: Six Sigma Improvement Methodology and Tools for ANALYZE

- Project Review
- How to Use Minitab
- Basic Statistics Summary
- Collecting and Summarizing Data
- Benchmarking
- Root Cause Analysis
- Central Limit Theorem
- Power and Sample Size
- Multi Vari Analysis
- Confidence Interval
- Hypothesis Testing
- Correlation & Regression
- Analysis of Variance

SESSION THREE: Six Sigma Improvement Methodology and Tools for IMPROVE

- Design of Experiments – Background and Roadmap
- Full and Fractional Factorial Experiments
- Other Statistical Tools
- Response Surface Methods/Setting Operating Tolerances
- Evolutionary Operations
- Facilitating Teams

SESSION FOUR: Six Sigma Improvement Methodology and Tools for CONTROL & LEAN

- Control Charts
- Control Plan
- Mistake Proofing
- Quality Management System
- DFSS- Design for Six Sigma
- Managing for Change

## **Lean Expert Certification**

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### **Course No. 124**

This course is designed to present Lean thinking; tools and techniques used to reduce non-value added activities, cost and cycle time, while improving quality, customer satisfaction and the business overall. Our training provides a practical approach to understanding Lean principles. It works hand-in-hand with Six Sigma to help propel your business and maintain a competitive edge.

### **Course Benefits**

Participants will acquire the skills needed to improve speed, flexibility, throughput and productivity and to reduce costs. They will be prepared to be powerful change agents within their businesses.

### **Prerequisites**

None

### **Certification Requirements**

Class participation, passing the exam at course completion, 5S /Visual Project completion at home .

### **Topics Covered:**

Lean Session 1:

- How to Implement Lean
- Value Stream Mapping
- Kaizen
- Standardization
- Managing Team based Organization
- Workshop

Lean Session 2:

- 5 S and Visual Concepts
- Lead time reduction/JIT
- Setup Time Reduction
- Lean Supply Chain
- Exercises
- Workshops, Exams

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## *Lead Instructors*

### **Jay P. Patel, ASQ Fellow**

Jay P. Patel, possesses over 25 years of professional work experience in management and quality assignments, including consulting and training to many Fortune 500 clients and trained thousands of people.

Jay has taught on site to several public and private companies. He has instructed ASQ, PMI and APICS Certification Courses besides GB, BB, DFSS and MBB. He has presented speeches and seminars to various organizations such as the Project Management Institute, American Production and Inventory Control Society, Institute of Industrial Engineers, American Society for Quality, and Society of Manufacturing Engineers. He holds 10 ASQ Certifications including Six Sigma Certified Black Belt. He has a Bachelor and Master Degrees in Engineering and MBA. He is a RAB-Quality System Lead Auditor.

Jay holds PMI certifications. He is a certified Project Management Professional (PMP®), a certified Risk Management Professional (RMP®) and a certified Scheduling Professional (PMI-SP®). Jay has served as Project Management Institute, Institute of Industrial Engineers and ASQ. He has held a number of positions at Chapters and Region levels in all 3 organizations. Jay is the Chairman of ASQ NEQC (North East Quality Council). Jay has been the National Malcolm Baldrige Quality Award Examiner and is an ASQ Fellow. He has co-authored the Quality Council of Indiana's Six Sigma Black Belt & Green Belt Primers, which are used for ASQ Certifications.

### **Jack Reardon**

Jack Reardon has over 30 years experience in the quality and business improvement field specializing in Quality Improvement. Jack's professional experience includes working in the manufacturing and service industries and provided training for Green Belt, Black Belt and Master Black Belt. Jack has successfully managed the quality systems and quality improvements of our clients. Jack has taught courses in Lean Six sigma for Yellow Belts, Green Belts, Black Belts and Master Black Belt. Jack is a certified Lean Expert, Master Black Belt and Design for Six Sigma Black Belt. A member of American Society for Quality for the last 15 years, he has been an active officer of ASQ North East Quality Council. He is a graduate of Northeastern, with a Bachelor of Science in Business Management.

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