

TPMG

Online Training

Lean Six Sigma Service Excellence Black Belt Certification in Digital Transformation

“Combining the cutting-edge practices of operational excellence with the transformational power of Robotic Process Automation, Machine Learning and AI.”



High Quality, Affordably Priced Training Services

Introduction

The Performance Management Group LLC

An Arizona Limited Liability Company (established in 1998)

Our Mission:

Helping public and private sector organizations become more productive, efficient & cost effective.

Our Structure:

We are a closely held group of consultants who consistently employ the signature TPMG performance improvement approach through specialized services including: Lean Six Sigma, The Balanced Scorecard, Performance Analytics, Process Transformation, Activity Based Costing and the technology of Robotic Process Automation, Machine Learning and Artificial Intelligence. Our company details are as follows:

Address: P.O. Box 44989 Phoenix, Arizona 85064	NAICS Codes:
Email: info@helpingmakeithappen.com	<ul style="list-style-type: none">• 541611 Administrative Management & General Management Consulting Services
Phone: 602.692.5073 CAGE Code: 3SDW3	<ul style="list-style-type: none">• 541614 Process, Physical Distribution, and Logistics Consulting Services
DUNS Number: 144166969	<ul style="list-style-type: none">• 611430 Professional and Management Development Training

Consultant Locations



Lean Six Sigma + Digital Transformation

The 21st Century Lean Six Sigma Black Belt?

This past December, The American Productivity and Quality Center - headquartered in Houston Texas - surveyed small, medium, large and global companies to understand common challenges and priorities across industry. The survey found components like process management and continuous improvement are the highest priority. Those two concerns were followed by performance-related areas such as data and measurement, project management, strategic planning and benchmarking. We found these survey results to be very interesting as the entire scope falls within the domain of the lean six sigma black belt.

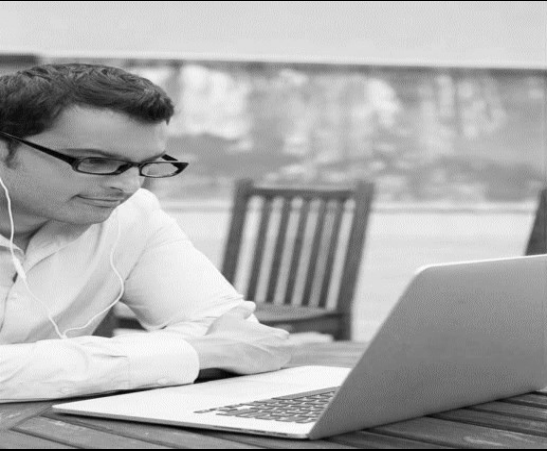
The 21st century lean six sigma black belt is not only expected to help industry address the traditional priorities of continuous improvement, but they are also expected to *add economic value* to the companies they support. What is meant by economic value is encapsulated in the equation you see here. 21st century lean six sigma black belts are expected to enhance the difference between the benefits enjoyed by a company's customers and their company's cost of operating. They not only accomplish this by eliminating waste and defects, but also by delivering *digital transformation initiatives* that generate positive *returns on the capital* a company invests. And that's what this course is about; training certified lean six sigma black belts to add value by delivering cutting-edge practices of operational excellence with the transformational power of Robotic Process Automation, Machine Learning and Artificial Intelligence.

Black Belts Adding Value

$$\text{Value} = \frac{\text{Deliver Goods and Services + Customer Experience}}{\text{Cost of Capital, Labor, Technology, Material, Energy etc....}}$$



\$161,342.00 is the average salary for a lean six sigma black belt in the United States!”



Online Lean Six Sigma Black Belt Certification in Digital Transformation

This 8 – 10-week program of study provides Black Belt candidates with an integrated Lean and Six Sigma curriculum enabling them to combine the cutting-edge practices of operational excellence with the transformational power of Robotic Process Automation, Machine Learning and Artificial Intelligence. The program topics include:

- 1. The Roots and History of Lean Six Sigma
- 2. Analyzing Performance
- 3. Value Stream Analysis
- 4. SIPOC Process Mapping
- 5. Cross Functional Flowcharting and Process Modeling
- 6. Improving the Customer Experience and CSAT Ratings
- 7. Tools for Continuous Improvement
- 8. Statistical Process Control for Non-Manufacturing
- 9. Business Case and Value Analysis
- 10. Activity Based Costing
- 11. Change Management
- 12. Team Dynamics
- 13. Data Collection Techniques
- 14. Management by Fact – DMAIC Approach to Improvement
- 15. Lean Transformation for Service Organizations
- 16. Quantitative Business Analysis
- 17. The Balanced Scorecard
- 18. Program Management: The Critical Path Method
- 19. The Digital Transformation Playbook (RPA, ML and AI)



BLACK BELT
IN PROGRESS

Certification Requirements

This unique course is applicable in complex processes where quality, productivity and cycle time efficiency are critical for success. Successful completion of the Black Belt course requires completion of the online bootcamp, passing the certification exam, and successfully completing a black belt certification project.

Lean Six Sigma Black Belt Certification – Digital Transformation

In this 80-to-100-hour course, candidates apply the practices of continuous improvement to create and sustain a more productive, efficient and cost-effective operation. Candidates learn to combine the cutting-edge practices of operational excellence with the transformational power of Robotic Process Automation, Machine Learning and Artificial Intelligence to create and sustain a more productive and cost-effective service organization.

Units	Topics	Case Studies	Key Exercises
Unit 1	The Roots of Lean Six Sigma <ul style="list-style-type: none"> The origin of six sigma Defining Productivity The nature of quality and its effect on productivity The cost of poor quality Systems thinking The value proposition of lean six sigma 	<ul style="list-style-type: none"> Above and Beyond 	Structured discussion: <ul style="list-style-type: none"> Understanding productivity Cost of poor quality The role of leadership Systems thinking The value proposition of lean six sigma
Unit 2	Lean Six Sigma Transformation Teams <ul style="list-style-type: none"> Establishing, supporting and facilitating transformation teams Team roles and responsibilities Transformation team meetings The stages of team evolution 	<ul style="list-style-type: none"> Team Meetings 	<ul style="list-style-type: none"> Strength's profile Team visioning exercise
Unit 3	Process Development <ul style="list-style-type: none"> Properties of a well-designed process management system Process owners vs. process stake holders Cross F(x) flowcharting The SIPOC process map Functionally vs. process focused organizations 	<ul style="list-style-type: none"> Flowcharting 	<ul style="list-style-type: none"> Cross functional flowcharting Process modeling SIPOC scope mapping
Unit 4	Analysis of Performance <ul style="list-style-type: none"> Performance variation Common cause vs. special cause variation Measures of central tendency Measuring performance 	<ul style="list-style-type: none"> Parable of the Red Beads Analyzing Operational Performance 	<ul style="list-style-type: none"> Analyzing performance data with run charts Interpreting data with run charts and drawing conclusions

Lean Six Sigma Black Belt Certification – Digital Transformation

Units	Topics	Case Studies	Key Exercises
Unit 5	The Voice of the Customer <ul style="list-style-type: none"> Voice of the customer defined Properties of a well-designed customer satisfaction model How to assess the voice of the customer How to improve Customer Satisfaction Ratings. 	<ul style="list-style-type: none"> Focus Group: Stew Leonard's Dairy Evaluating The Voice of the Customer: Importance and Satisfaction – An Analysis of CSAT 	Structured discussion: <ul style="list-style-type: none"> How to engage customers. Identifying mechanisms, systems and processes to improve the customer experience. The Playbook: The Critical Path to Improving the Customer Experience
Unit 6	Part 1: Six Sigma Analytical Tools <ul style="list-style-type: none"> Data sheets Pie Charts Box Plots Bar charts Histograms Cause and effect analysis Scatter diagrams Correlation and simple linear regression analysis Pareto analysis 	<ul style="list-style-type: none"> Box Plots: Understanding the 5 number summary Histograms: time of first lightning strikes. Cause and Effect Analysis Scatter Diagrams – saving the manatees 	Deep Dive Exercises: <ul style="list-style-type: none"> Box Plots Creating and analyzing histograms Cause and effect analysis Creating and analyzing scatter diagrams Correlation analysis Regression analysis Pareto analysis
Unit 6	Part 2: Statistical Process Control <ul style="list-style-type: none"> The Purpose of Statistical Process Control Rational sub-grouping and sampling Using baseline control charts for performance metrics Measuring performance capability Measurement systems analysis Data collection 	<ul style="list-style-type: none"> Control Charts Data Collection Planning Data Collection Methods 	Deep Dive Exercises: <ul style="list-style-type: none"> Control chart selection Control chart construction Control chart analysis Performance capability analysis
Unit 7	Management by Fact <ul style="list-style-type: none"> Defining lean & six sigma PDCA – Deming approach to improvement DMAIC – lean six sigma approach to improvement 	<ul style="list-style-type: none"> Due Diligence: Project Scoring Case Study: Improving the Answer Call Rate 	Structured discussion: <ul style="list-style-type: none"> Project Scoring Root cause analysis DMAIC

Lean Six Sigma Black Belt Certification – Digital Transformation

Units	Topics	Case Studies	Key Exercises
Unit 8	Team Dynamics: Working with and through others <ul style="list-style-type: none"> Team dynamics Brainstorming Group Think Understanding and Managing Change Affinity Diagramming 	<ul style="list-style-type: none"> Consensus Groupthink 	<ul style="list-style-type: none"> Consensus building: lost at sea Structured discussion: groupthink
Unit 9	Establishing a Performance Excellence System <ul style="list-style-type: none"> Attributes of an effective performance excellence system Defining value streams Integrating measurements Non-value-added tasks Establishing performance targets 	<ul style="list-style-type: none"> Using Control Charts as a Performance Measurement System Pyxis: Establishing Culture of Continuous Improvement 	Structured discussion: <ul style="list-style-type: none"> Involvement of senior leaders in cultural transformation How to engage employees to adopt a performance excellence system The role of communication to facilitate transformation
Unit 10	Lean Transformation <ul style="list-style-type: none"> Lean thinking Value defined Value Added Analysis Muda (無駄) - waste Value stream mapping Theory of constraints, work balancing, takt time, theoretical maximum performance 5S 	<ul style="list-style-type: none"> Lean Manufacturing 5S Calculating Takt Time – Patient Wait times 	Structured discussion: <ul style="list-style-type: none"> Takt time analysis – patient wait time.
Unit 11	Quantitative Analysis <ul style="list-style-type: none"> Basic statistical concepts Sampling Distributions Confidence intervals Hypothesis tests – tests of significance Analysis of variance Chi – square Analysis Multiple regression analysis 	<ul style="list-style-type: none"> Confidence Intervals – Will Shaw’s Blood Pressure Test of Significance – NutraSweet Paired T-Test: NutraSweet Extension Inference with Two-Way Tables 	<ul style="list-style-type: none"> One-Sample T-Test – Leaving without treatment Two-Sample T-Test – Patient Complaints Paired T-Test – Rehabilitation before and after Test of Proportion – Imaging equipment quality One Way Anova – Inbound call center Two Way Anova – Door to Doc Time Chi-Square Test of Independence: Education vs Job Level. Multiple Regression – Predicting Heating Cost

Lean Six Sigma Black Belt Certification – Digital Transformation

Units	Topics	Case Studies	Key Exercises
Unit 12	Managing Strategy – The Balanced Scorecard <ul style="list-style-type: none"> The strategic planning process Situational (SWOT) analysis Strategic analysis and conclusions Operationalizing strategy Principles of a strategy focused organization The balanced scorecard Creating a balanced scorecard 	<ul style="list-style-type: none"> The Balanced Scorecard – Corporate Strategy and Business Planning A Strategy Focused Organization Industry and Market Analysis The Balanced Scorecard - Poudre Valley Healthcare 	<ul style="list-style-type: none"> Case Study Analysis – Strategic Planning: Southwest Airlines 2007 Case Study Analysis – Operationalizing Strategy – Poudre Valley Health Systems
Unit 13	Lean Six Sigma: Financial Impact Analysis <ul style="list-style-type: none"> The cost of poor quality Activity based costing Business case and value analysis 	<ul style="list-style-type: none"> Activity Based Costing; Taylor’s Outpatient Clinic Business Case Analysis: Net Present Value – Billing Exceptions 	Business Case Analysis: IT integration solution <ul style="list-style-type: none"> Net Present Value Return on Investment Payback Period
Unit 14	Benchmark Continuous Improvement <ul style="list-style-type: none"> Benchmarking defined The generally accepted benchmarking best practices Critical evaluation of core processes Discovery Implementation Monitoring and evaluation 	<ul style="list-style-type: none"> Benchmarking for Continuous Improvement - GTE 	<ul style="list-style-type: none"> Case Study Analysis – Scoping, Analysis, Implementation
Unit 15	The Playbook for Digital Transformation with RPA, ML and AI <ul style="list-style-type: none"> Chartering Current State Analysis Process Transformation Workshop Value Analysis Post Workshop Presentation OKRs and Roadmap The Critical Path Method to Digital Transformation 	<ul style="list-style-type: none"> What is Digital Transformation? What is RPA? The snapshot: Financial Tech Case Study Establishing an RPA Center of Excellence 	Structured Discussion: <ul style="list-style-type: none"> What is Digital Transformation What is RPA, ML and AI Establishing an RPA Center of Excellence Digital Transformation Program Management