GREEN BELT *

- Lean and Six Sigma Overviews
- Deployment Strategy and Belt Roles
- Project Charter
- Data Collection and Concepts
- Voice of the Customer (VOC)
- Process Mapping
- Cause and Effect Matrix
- Basic Statistics
- 8 Types of Waste
- Intro to Minitab (or other software)
- Statistical Process Control (SPC)
- Measurement Systems Analysis (MSA)
- Capability Analysis (Cp, Cpk, Pp, Ppk)
- Overall Equipment Effectiveness (OEE)
- Total Productive Maintenance (TPM)
- Theory of Constraints (TOC)
- Failure Modes and Effects Analysis (FMEA)
- Intro to Hypothesis Testing
- 2 Proportions and T Tests
- Analysis of Variance (ANOVA)
- Correlation and Multiple Regression
- Design of Experiments (DOE)
- Mistake Proofing (Poka Yoke)
- Continuous Flow Methods
- Setup Reduction (SMED)
- Standard Work
- 5S Workplace Organization
- Visual Controls
- Pull and Kanban
- Behavior Change
- Daily Management System
- Kaizen Events
- Control Plans
- Project Documentation and Certification

BLACK BELT

- Green Belt Course Review
- Z-values and Probabilities
- Z Transformations and Probability Calculations
- Student's t-distribution
- Confidence Intervals for Small Samples and Standard Deviations
- Skewness and Kurtosis
- Probability Plots and Distributions
- Sample Size Calculation
- Skewed and nonnormal distributions
- 1-Sample Sign and Wilcoxon Tests
- Mood's Median and Kruskal-Wallis
- Spearman Rank Correlation
- I-MR-R/S charts
- Laney P' and U' charts
- G and T chart
- CUSUM and EWMA charts
- Confidence Intervals for Cpk/Ppk
- Individual Distribution Identification (IDI)
- Box-Cox and Johnson Transformations
- Nonnormal and Nonparametric Capability (Cnp/Cnpk)
- Nested Gage R&R Study
- F-distribution
- Unusual Observations (Outliers)
- Multicollinearity and Variance Inflation Factor (VIF)
- Regression Coefficients and Significance
- Polynomial, Logistic and Poisson Regression
- Lenth's PSE
- Definitive Screening Designs (DSDs)
- Binary Responses in DOE
- Hierarchical Models in DOE
- Central Composite Designs
- Box-Behnken Designs
- Critical to Quality (CTQ)
- Design for Six Sigma (DFSS)
- DMADV
- DFSS Tools
- Quality Function Deployment (QFD)
- Kano Model
- TRIZ
- Pugh Matrix
- Statistical Tolerancing

*Lean and Six Sigma are combined in the Green Belt course, but can be separate courses

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