

A DIGITAL LEARNING PLATFORM DESIGNED TO REACH A NEW LEVEL OF SKILL.

Dr. Juran, the "ARCHITECT OR QUALITY", believed that issues are best solved when employees are empowered to learn continuously and apply the knowledge to creating solutions. That's why we launched **IMPRO**, a digital learning platform designed to help employees break through a new level of skill and unlock financial impact within your organization.





OBJECTIVES / 1.5 hours

Quality 101 is a high-level introduction to continuous improvement. This program covers important events and people involved in the history of quality and continuous improvement, basic information about quality, the Juran management system, and introduces how to use the Juran Trilogy in today's work environment.

- The History of Quality and Continuous Improvement
- Basic Quality
- The Juran Management System
- Putting the Trilogy to Work Today





OBJECTIVES / 5.3 hours

White Belt builds upon the basic quality concepts learned in Quality 101, and introduces new concepts around the topics of why quality improvement is necessary, and how to proceed on an improvement path.

- The History of Quality and Continuous Improvement
- Basic Quality
- The Juran Management System
- Putting the Trilogy to Work Today
- The Need for Change & Continuous Improvement
- Improving Quality
- Introduction to Variation and Waste
- Continnuous Improvement Structure
- Effective Teams
- Overview of Improvement Methods
- What is DMAIC?
- What is Lean?
- What is Quality by Design?
- The Financial Case for Improvment





OBJECTIVES / 7.5 hours

Champion builds upon the need for change discussed in White Belt, and introduces concepts related to what a Champion does to facilitate projects and project teams within the larger organization. Important topics such as being a project Champion, managing change, the strategic roadmap, selecting projects, and the cost of poor quality are covered. Everything learned up to this point is then put into action through completing the Avidco Company Case Study.

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- What is DMAIC?
- What is Lean?
- What is Quality by Design?

- The Financial Case for Improvment
- Being a Project Champion
- Managing Change
- The Strategic Planning Roadmap
- Introduction to Selecting Projects
- Introduction to the Cost of Poor Quality
- Application: Avidco Case Study



OBJECTIVES / 10.2 hours

Yellow Belt builds upon where Champion leaves off. This is the true start of in-depth Six Sigma training, digging deeper into the Six Sigma DMAIC methodology of Define, Measure, Analyze, Improve, and Control. Yellow Belts are improvement project team members and will learn about Improvement tools necessary to implement and conduct an improvement project.

- The History of Quality and Continuous Improvement
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- Continnuous Improvement Structure
- Effective Teams
- Overview of Improvement Methods
- What is DMAIC?
- What is Lean?
- What is Quality by Design?
- The Financial Case for Improvment
- Define

- Improvement Tool: SIPOC Diagram
- Measure
- Improvement Tool: Juran's Pareto Analysis
- Improvement Tool: Data Collection Plan
- Improvement Tool: Detailed Process Mapping
- Analyze
- Improvement Tool: Graphs and Charts
- Improvement Tool: Brainstorming
- Improvement Tool: Cause-Effect Diagrams
- Improvement Tool: 5-Why Analysis
- Improve
- Improvement Tool: Solution Matrix
- Improvement Tool: Pilot Study
- Improvement Tool: Mistake Proofing
- Control
- Improvement Tool: Process Control Plan



OBJECTIVES / 17.75 hours

Green Belt builds upon what is learned in Yellow Belt. Green Belts are typically project members and leaders, and will learn about more advanced graphical tools, and apply knowledge learned in their training by completing application modules in the form of a case study surrounding an improvement project conducted at the JDD company.

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- Effective Teams
- Overview of Improvement Methods
- What is DMAIC?
- What is Lean?
- What is Quality by Design?
- The Financial Case for Improvment
- Application: Background
- Application: Creating a Project Charter
- Application: Calculating the Cost of Poor Quality
- Define

- Improvement Tool: Stakeholder Analysis
- Application: Stakeholder Analysis
- Improvement Tool: Voice of the Customer Matrix
- Application: Verifying the Voice of the Customer
- Improvement Tool: SIPOC Diagram
- Application: High Level Process Map (SIPOC)
- Measure
- Improvement Tool: Juran's Pareto Analysis
- Application: Determining the "Vital Few" Through Pareto Analysis
- Improvement Tool: Data Collection Plan
- Application: Data Collection Plan
- Improvement Tool: Sampling
- Application: Working With the Right Data, Samples or Populations?
- Improvement Tool: Detailed Process Mapping
- Application: Detailed Process Map
- Analyze
- Improvement Tool: Calculating Sigma
- Application: Calculating Sigma Level
- Improvement Tool: Graphs and Charts
- Application: Using Graphs and Charts

- Improvement Tool: Brainstorming
- Improvement Tool: Stratification
- Improvement Tool: Histograms
- · Application: Working With Histograms
- Improvement Tool: Box Plots
- Application: Working With Box Plots
- Improvement Tool: Scatter Diagrams
- Application: Interpreting Scatter Diagrams
- Improvement Tool: Cause-Effect Diagrams
- Application: Cause-Effect Diagram
- Improvement Tool: 5-Why Analysis
- Application: 5-Why Analysis
- Improvement Tool: FMEA
- Application: Failure Mode Effects Analysis
- Improvement Tool: Impact Control Matrix
- Improve
- Application: Brainstorming
- Improvement Tool: Solution Matrix
- Application: Solution Matrix
- Improvement Tool: Barriers and Aids
- Application: Barriers and Aids
- Improvement Tool: Pilot Study
- Application: Pilot Study
- Improvement Tool: Mistake Proofing
- Application: Mistake Proofing
- Improvement Tool: Benchmarking
- Improvement Tool: Pugh Matrix
- Control
- Improvement Tool: Process Control Plan
- Application: Creating a Control Plan
- Improvement Tool: Control Charts
- Application: Control Charts
- Application: Updating COPQ and SIgma Level
- Application: Documentation



OBJECTIVES / 24.4 hours

Black Belt builds upon what is learned in Green Belt. Black Belts are statistical experts and project leaders who use advanced statistical tools to solve complex problems. Advanced tools such as hypothesis testing and statistical process control is taught, and statistical software Minitab is heavily used.

- The History of Quality and Continuous Improvement
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- What is DMAIC?
- What is Lean?
- What is Quality by Design?
- The Financial Case for Improvment
- Managing Change
- The Strategic Planning Roadmap
- Introduction to Selecting Projects
- Introduction to the Cost of Poor Quality
- Application: Background
- Application: Creating a Project Charter

- Application: Calculating the Cost of Poor Quality
- Define
- Improvement Tool: Stakeholder Analysis
- Application: Stakeholder Analysis
- Improvement Tool: Voice of the Customer Matrix
- Application: Verifying the Voice of the Customer
- Improvement Tool: SIPOC Diagram
- Application: High Level Process Map (SIPOC)
- Measure
- Improvement Tool: Juran's Pareto Analysis
- Application: Determining the "Vital Few" Through Pareto Analysis
- Improvement Tool: Data Collection Plan
- Application: Data Collection Plan
- Improvement Tool: Sampling
- Application: Working With the Right Data, Samples or Populations?
- Improvement Tool: Detailed Process Mapping
- Application: Detailed Process Map
- Introduction to Measurement System Analysis

- Measurement System Analysis
- Process Capability and Calc Sigma
- Analyze
- Improvement Tool: Calculating Sigma
- Application: Calculating Sigma Level
- Improvement Tool: Graphs and Charts
- Application: Using Graphs and Charts
- Improvement Tool: Brainstorming
- Improvement Tool: Stratification
- Improvement Tool: Histograms
- Application: Working With Histograms
- Improvement Tool: Box Plots
- Application: Working With Box Plots
- Improvement Tool: Scatter Diagrams
- Application: Interpreting Scatter Diagrams
- Improvement Tool: Cause-Effect Diagrams
- Application: Cause-Effect Diagram
- Improvement Tool: 5-Why Analysis
- Application: 5-Why Analysis
- Improvement Tool: FMEA



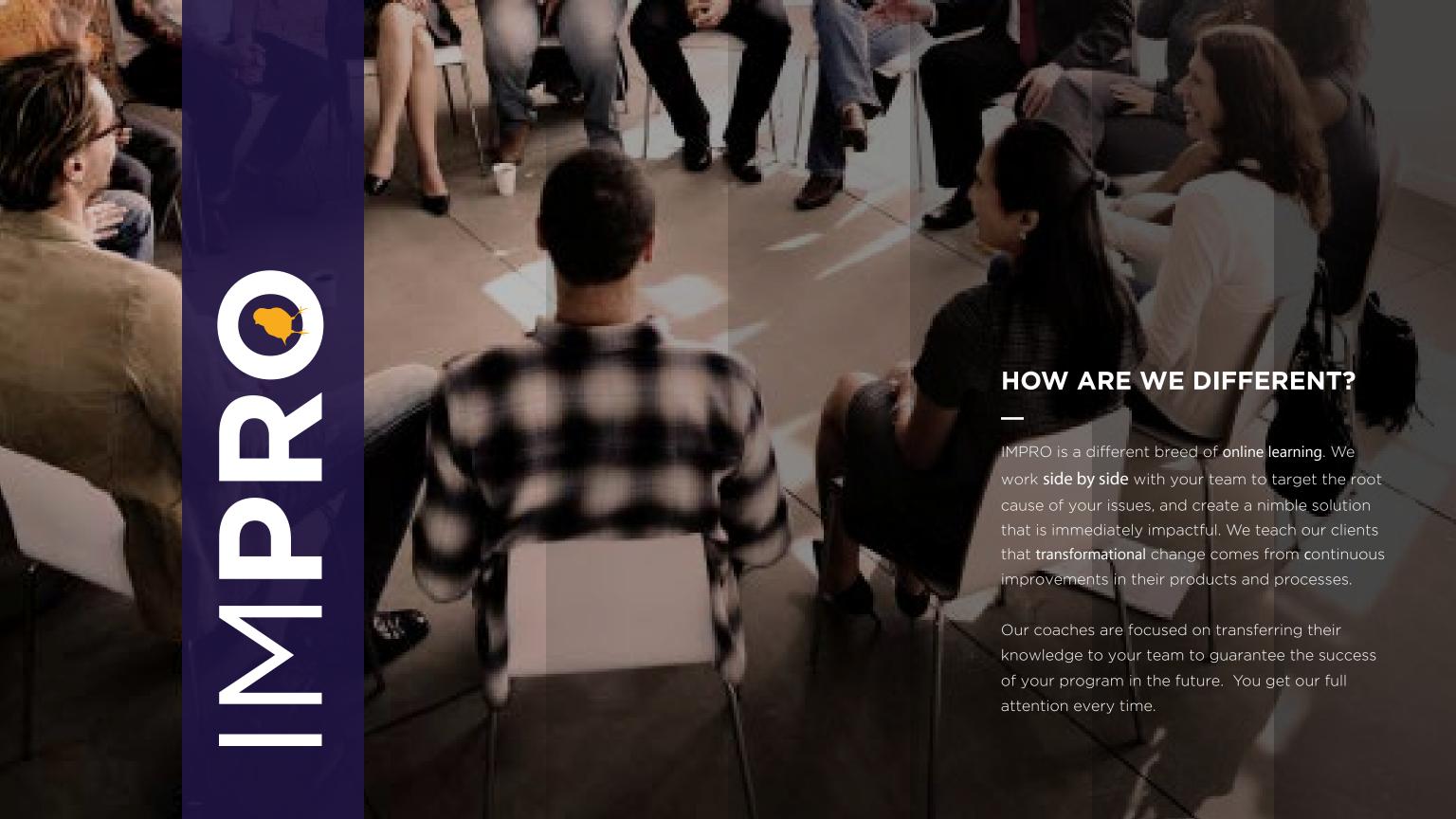
OBJECTIVES / 24.4 hours

Black Belt builds upon what is learned in Green Belt. Black Belts are statistical experts and project leaders who use advanced statistical tools to solve complex problems. Advanced tools such as hypothesis testing and statistical process control is taught, and statistical software Minitab is heavily used.

OFFERINGS CONTINUED

- Application: Failure Mode Effects Analysis
- Improvement Tool: Impact Control Matrix
- Introduction to Hypothesis Testing
- Testing Hypotheses With Categorical Data
- Testing for Equal Variance
- Testing Hypotheses When Y is Continuous and X is Categorical
- Analysis of Variance
- Nonparametric Tests
- Testing Hypotheses When Y is Continuous and X is Continuous
- Improve
- Application: Brainstorming
- Improvement Tool: Solution Matrix
- Application: Solution Matrix
- Improvement Tool: Barriers and Aids
- Application: Barriers and Aids
- Improvement Tool: Pilot Study
- Application: Pilot Study

- Improvement Tool: Mistake Proofing
- Application: Mistake Proofing
- Improvement Tool: Benchmarking
- Improvement Tool: Pugh Matrix
- Control
- Improvement Tool: Process Control Plan
- Application: Creating a Control Plan
- Improvement Tool: Control Charts
- Application: Control Charts
- Statistical Process Control
- Application: Updating COPQ and SIgma Level
- Application: Documentation



Length (Minutes) 30	MODULE The History of Quality and Continuous Improvement	DESCRIPTION This module covers a basic introduction to the vast field of quality improvement, and the impact made by Dr. Joseph M. Juran and his contemporaries.
20	Basic Quality	This module covers basic quality principles and operational definitions important to continuous improvement.
20	The Juran Management System	This module is an introduction to how Juran thinks about quality.
20	Putting the Trilogy to Work Today	This module is an introduction on how to make continuous improvement efficiently happen in today's organizations.
30	The Need for Change & Continuous Improvement	This module is an introduction to why organizations must continue to develop processes and services that satisfy organizational and customer needs.
35	Improving Quality	This module is an introduction to the methods and steps available to improve levels of quality.
25	Introduction to Variation and Waste	This module is an introduction to process variation and the waste that variation creates.
15	Continnuous Improvement Structure	This module is an introduction to the different high-level components of a Continuous Improvement program.
35	Effective Teams	This module is an introduction to teams, and the team skills necessary to work well together on improvement projects.
15	Overview of Improvement Methods	This module is an overview of the Lean, Six Sigma, and Quality by Design improvement methodologies.
10	What is DMAIC?	This module is an introducton to the Six Sigma DMAIC improvement methodology and how to identify and improve process effectiveness.

Length (Minutes) 20	MODULE What is Lean?	DESCRIPTION This module is an introduction to the Lean improvement methodology and how to identify and eliminate process waste.
20	What is Quality by Design?	This module is an introduction to the Quality by Design planning methodology.
25	The Financial Case for Improvement	This module is an introduction to how a continuous improvement program can impact an organization's bottom line.
10	Being a Project Champion	This module is an introduction to the responsibilities of a project Champion. It covers what is expected of Champions and what is expected when working with a project team.
15	Managing Change	This module details what change is, and how to manage continuous improvement projects to achieve desired results.
20	The Strategic Planning Roadmap	This module details how to integrate continuous improvement goals into the strategic plan, and provides a roadmap for doing so.
30	Introduction to Selecting Projects	This module is an introduction to selecting appropriate continuous improvement projects that fit in with an organization's strategic plan.
25	Introduction to the Cost of Poor Quality	This module is an introduction to the costs related to poor quality, which are the costs of not doing a job perfectly every time it gets done.
30	Application: Avidco Case Study	This module acts as a demonstration of the use of continuous improvement techniques in the form of a case study following the Avidco Corporation's struggle with expansion.
10	Application: Background	This module is an introduction to the JDD Expense Request Case Study. It covers background on the
10	Application: Creating a Project Charter	This module has learners apply their knowledge and create a Project Charter for the JDD Expense Request project.

Length (Minutes) 10	MODULE Application: Calculating the Cost of Poor Quality	DESCRIPTION This module has learners apply what they have learned and use provided information to calculate the cost of poor quality relating to the JDD Expense Request process.
15	Define	This module introduces Define, the first step of the Six Sigma DMAIC methodology. It covers what tools are used,
10	Improvement Tool: Stakeholder Analysis	This module is an introduction to stakeholder analysis, a tool used to gauge important stakeholders views of a problem or project before committing resources to tackle them.
10	Application: Stakeholder Analysis	This module has learners use information about JDD stakeholders and answer questions about the stakeholder analysis the team completed.
15	Improvement Tool: Voice of the Customer Matrix	Voice of the Customer, Key Issues, and Critical to Quality, all important aspects when working on an improvement project. Understand a processes multiple customers and their needs, and ultimately identify what is critical to quality for the process to run effectively.
10	Application: Verifying the Voice of the Customer	This module has learners use information about JDD customers and answer questions about how the team used the Voice of the Customer and identified what is Critical to Quality.
20	Improvement Tool: SIPOC Diagram	This module introduces the SIPOC Diagram. SIPOC stands for Supplier, Input, Process, Output, Customer, and this is a high-level process map that determines the boundaries of an improvement project.
10	Application: High Level Process Map (SIPOC)	This module has learners review and interpret the JDD improvement team's SIPOC.
25	Measure	In this module, learners will discover how improvement teams measure the Y in its current state in numbers, and the tools to do so.
20	Improvement Tool: Juran's Pareto Analysis	This module introduces the Pareto Principle and Pareto Analysis. This is a tool that helps project teams differentiate the "vital few" from the "useful many." It essentially shows that a small number of sources account for the majority of a problem.

Length (Minutes) 10	MODULE Application: Determining the "Vital Few" Through Pareto Analysis	DESCRIPTION This module has learners interpret the JDD teams Pareto Diagram and answer questions about how it is used.
20	Improvement Tool: Data Collection Plan	This module is an introduction to Data Collection Plans. A data collection plan is a tool used to define a clear strategy to efficiently collect reliable information that will be used to prove root causes.
10	Application: Data Collection Plan	This module has the JDD team create a Data Collection Plan, and the learner interpret and answer questions about it.
20	Improvement Tool: Sampling	This module introduces sampling. Sampling is when a select group of carefully selected data is used to make an inference about an entire population of data to simplify data collection.
10	Application: Working With the Right Data, Samples or Populations?	This module has the JDD team decide to use a sample of their total data population. It is then the learners job to analyze how the team used the tool, and answer questions about it.
15	Improvement Tool: Detailed Process Mapping	A process map is a graphic representation of the sequence of steps of a given process. It shows where the process begins and ends, aling with where major steps take place. A detailed process map is much more in-depth than a SIPOC map, and follows the "thing" going through the process.
10	Application: Detailed Process Map	This module has the learner review and answer questions about the detailed process map the JDD team created.
25	Analyze	During the improvement step, improvement teaams are tasked with studying the potential Xs, and determining which ones cause the most process variation.
15	Improvement Tool: Calculating Sigma	This module introduces the concepts of Sigma Level and Yield, and demonstrates how to measure each. Sigma Level is a measure of process effectiveness, and yield is a measure of process output.
10	Application: Calculating Sigma Level	In this module the learner reviews information provided by the JDD team and answers questions based on that information.

Length (Minutes) 10	MODULE Improvement Tool: Graphs and Charts	DESCRIPTION Graphs and charts are pictorial representations of quantitative data. They can summarize large amounts of information in a small area and communicate complex situations concisely and clearly.
10	Application: Using Graphs and Charts	Line graphs, bar graphs, stacked bar graphs, and pie charts are covered in this module. This module has the learner review and answer questions about graphs and charts that the JDD team created.
10	Improvement Tool: Brainstorming	This module is an introduction to Brainstorming, a tool used to generate many ideas on a topic without judgement. This tool encourages every team member to participate and contribute ideas.
10	Improvement Tool: Stratification	This module introduces Stratification. Stratification is the breaking apart of data to reveal patterns and allow for examination in many different ways.
10	Improvement Tool: Histograms	This module introduces Histograms. Histograms charts that display variation in a single characteristic. Patterns in the variation often reveal facts about the process.
10	Application: Working With Histograms	This module has the learner review histograms that the JDD team created, and answer questions relating to those graphs.
15	Improvement Tool: Box Plots	This module introduces Box Plots. Box Plots provide a graphic summary of the variation in a set of data. They are especially useful when working with small sets of data.
10	Application: Working With Box Plots	This module has the learner review box plots that the JDD team created, and answer questions relating to those charts.
15	Improvement Tool: Scatter Diagrams	This module introduces Scatter Diagrams. Scatter Diagrams show a numerical relationship or correlation between variables. They are an ideal way to display data when trying to evaluate a cause-effect relationship.
10	Application: Interpreting Scatter Diagrams	This module has the learner review scatter diagrams the JDD team created, and answer questions relating to those charts.

Length (Minutes) 25	MODULE Improvement Tool: Cause-Effect Diagrams	DESCRIPTION This module introduces Cause-Effect Diagrams. Cause-Effect diagrams are used to suggest theories of root causes, and help teams focus on possible Xs.
10	Application: Cause-Effect Diagram	This module has the learner review a cause-effect diagram that the JDD team created, and answer questions relating to it.
10	Improvement Tool: 5-Why Analysis	This module introduces 5-Why Analysis, a tool that helps identify potential causes of problems through repeatedly asking Why until you reach a root cause.
10	Application: 5-Why Analysis	This module has the learner review the JDD teams 5-Why analysis and answer questions related to it.
10	Improvement Tool: FMEA	FMEA is a systematic method for identifying possible failures that pose the greatest overall risk for the process, product, or service.
10	Application: Failure Mode Effects Analysis	This module has the learner review the JDD teams FMEA and answer questions related to it.
20	Improvement Tool: Impact Control Matrix	This module introduces Impact Control Matrices. An Impact Control Matrix is a simple prioritization tool that identifies the degree of control of a root cause of a problem, vs. the degree of impact the root cause has on the process.
25	Improve	During the Improve step, project teams develop proposed solutions, and pilot them in a real business environment.
10	Application: Brainstorming	In this module the learner reviews a brainstorming session the JDD project team held and answers related questions.
10	Improvement Tool: Solution Matrix	This module introduces the Solution Matrix. A solution matrix helps improvement teams evaluate solutions against evaluation criteria.
10	Application: Solution Matrix	This module has the learner review the JDDs solution matrix and answer related questions.

Length (Minutes) 10	MODULE Improvement Tool: Barriers and Aids	DESCRIPTION Barriers and Aids Charts are a graphical way to display potential cultural and other barriers to a process change. They also display aids to make the change easier for employees, and show countermeasures for apparent issues that may arise.
10	Application: Barriers and Aids	This module has the learner review JDDs barrriers and aids chart and answer related questions.
10	Improvement Tool: Pilot Study	A Pilot Study is a test of all or part of a proposed solution on a small scale in order to better understand its effects and to learn how to make the full-scale implementation more effective.
10	Application: Pilot Study	This module has the learner review JDDs pilot study and answer related questions.
15	Improvement Tool: Mistake Proofing	This module introduces Mistake Proofing. Mistake Proofing is the act of making a task difficult to perform incorrectly.
10	Application: Mistake Proofing	This module has the learner review how the JDD team mistake proofed their solution and answer related questions.
10	Improvement Tool: Benchmarking	This module introduces Benchmarking. Benchmarking is a tool which organizations use to measure their performance against another's best-in-class practices.
10	Improvement Tool: Pugh Matrix	A Pugh Matrix is a tool for comparing several alternative concepts against a base concept, creating stronger concepts, and eliminating weaker ones until an optimal concept is reached.
25	Control	Control is the fifth and final step in the DMAIC process. Control is when the means to keep a revised process at a new level of performance.
10	Improvement Tool: Process Control Plan	This module introduces Control Plans. A control plan is the means to document how to monitor a revised process or product and ensure that it remains within specification.
10	Application: Creating a Control Plan	This module has the learner review the JDD teams process control plan and answer related questions.

Length (Minutes) 15	MODULE Improvement Tool: Control Charts	DESCRIPTION Control Charts display measured performance of a process at given times, and allow an organization to monitor processes to determine their variability and enact corrective action.
10	Application: Control Charts	This module has the learner review the JDD teams control charts and answer related questions.
10	Application: Updating COPQ and SIgma Level	This module has the learner review JDD data and calculate a revised sigma level and cost of poor quality.
10	Application: Documentation	This module has the learner review the JDD teams project documentation and answer related questions.

AVAILABLE RESOURCES



Templates

Barriers & Aids Chart
Cause & Effect Diagram
Change Management Plan
Communication Plan
Criteria Based Selection Matrix
Data Collection Plan
Design & Process FMEA
Hypothesis Testing
Juran Lifeline Ready Reference
Lean Six Sigma Report
Meeting Agenda
Process Control Plan
Project Charter
Project Status
SIPOC



Tools

Sigma Calculation
Sample Size Calculator
Juran Project Resource Calculator



Matrices

Voice of the Customer
Pugh Selection
Project Selection
Impact Control



Summaries, Forms & Worksheets

Blank Executive Stakeholder Analysis Pilot Plan Project Submittal



Minitab

Example Data Files
Directions

