



# Steven C. Wilson

*“Steve Wilson’s dedication and commitment to getting the job done has few equals. He is an excellent teacher as well, have in-depth knowledge of process analysis and improvement techniques, which helped multiple times when things could have been confusing, yet he was patient, clear, consistent and highly effective in helping the client understand what was needed, and in facilitating effective meetings to success.”*

Frederick 'Rick' Buchman

MBA, LSSMBB, Agile/Scrum Master, PhD (ABD), Published Int'l Author, Coach & Business Performance Improvement Consultant

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Steven C. Wilson is recognized as an **outstanding business process improvement leader and facilitator of transformational change; an entrepreneur; a catalyst for collaboration** - providing opportunities for people to share ideas and thoughts “from the best and for the best” to learn from others; and a sought-after advisor, coach, consultant, and speaker. An ASQ CLSSBB since 2004, he has trained and coached over 2000 individuals from over 200 companies in Lean and Six Sigma, is a certified Theory of Constraints Supply Chain Logistics Practitioner and received Lean Certification through the University of Michigan College of Engineering (2004).

Steve has **over 20 years of applying quality improvement tools, methodologies, and principles** in a variety of industries that include automotive, healthcare, logistics, distribution, education, and numerous manufacturing venues. He has dedicated himself to the cause by training/coaching over 1000 Six Sigma practitioners in over 100 companies **with an emphasis on getting results**. To his credit he has over \$100 million impact and \$10 million direct project savings.

Taking a **targeted approach to business results**, he helps businesses improve their people, processes, products and the people they serve by first assessing the organization as a whole and then determining the greatest area of need and the appropriate solution. Wilson provides **an experienced eye** for companies desiring to increase their bottom line by helping them:

1. Develop their people
2. Create new and innovative products
3. Reduce the waste in processes and increase quality in their products and services
4. Increase market share, customer retention, and customer satisfaction

With a **proven track record of success in multiple industries** and a **very engaging communication and leadership style**, Steven is often called upon to speak to business and professional groups, leadership teams, and is frequently asked to facilitate expert panel discussions. His personal and professional experience along with his humor and passion, allows him to connect with audiences of all types. Whether training in classrooms, addressing large or small audiences, or working one-on-one, **Steven brings insight and clarity on a variety of topics, both personal and professional.**

His vehicles for change and delivering the promises of operational excellence and being a high-performance organization include the following:

Founder – Host	Founder - President
	<p><a href="http://www.zstrat.com">http://www.zstrat.com</a></p> 

- Founder-President Zoned Strategies** an international management and operations consultancy helping companies located around the globe become high-performance organizations. Founded in 2004, Zoned Strategies specializes in designing and deploying programs and efforts within companies with the aim of increasing company performance and improving the circumstances of those who work there with an emphasis on; building a culture of leadership, innovation, accelerated decision-making, integration and collaboration across business silos, leading transformational change, effecting the continuous and deliberate improvement in operations, compressing the time to achieve the company strategies, and the elevation of the human condition.
- Producer and Host of the Iowa Lean Radio Network;** The ILC Radio Network podcast serves as a platform for communicating the best and brightest strategies, methods, and tools for all those on the journey of lean and operational excellence. Steven interviews some of the world's most well-known and influential Lean and Continuous Improvement Leaders, Practitioners, Authors Educators and Advisors.
- Delivering value at conferences and symposia** with venues located around the world where he fulfills a variety of roles which include; Keynote Speaker • Workshop Leader • Lecturer • Break- out Session Leader • Panel Moderator and Panelist • and Emcee

Wilson currently serves on: • the **Advisory Board** of the Operational Excellence Society • the **Leadership Board** of the Hawkeye Chapter of the Association of Talent Development in the capacity of VP of Membership

# Lean Six Sigma Integrated Green Belt Course

**Introduction: Zoned Strategies** incorporates an **integrated (blended) learning** program which melds several content delivery methods (learning platforms) including **webinars, self-directed study, classroom training, and one-on one mentoring and coaching.**

Teaching the theory on the subject of Lean Six Sigma, for instance, is delivered in the form of instruction given in **live lectures** via the Internet, **online self-study presentations** and **videos**, and offline readings and exercises from select books serving as additional structured materials. The trainee gains experience and wisdom by leveraging the theoretical content into a **practical application** with the support of a knowledgeable coach.

Because it is far better to leverage an integrated learning model that separately teaches the theory and the practical, this practical application of the materials are being learned on a project that is of benefit to the company with the **face-to face** support of the assigned coach and mentor.

The blended learning method can also be described as a movement toward integrated lessons helping trainees make connections across curricula.

## Module 1: Introduction to Six Sigma (55 minutes)

Six Sigma is a disciplined, data-driven approach and methodology for identifying and removing the causes of defects (errors) and minimizing variability in manufacturing and business processes. It uses a set of quality management methods, including statistical methods, and creates a special infrastructure of people within the organization ("Champions," "Black Belts," "Green Belts," "Yellow Belts," etc.) who are experts in these methods. This module will: Lean and Six Sigma, Reality or Myth?

- Define Six Sigma and discuss its origin and evolution.
- Describe how it differs from Lean and Six Sigma.
- Explain how sigma levels are determined, and how they are used to indicate process capability.
- Describe the roles of Six Sigma team members.
- Discuss key factors of Six Sigma success.
- Discuss important elements of the Six Sigma process, including key inputs and outputs and the role of "Critical to Xs".
- Describe the five phases of the DMAIC improvement cycle.

## Module 2: Introduction to Lean Principles: (55 minutes)

A Lean operation produces just what is needed, when it is needed with no additional labor, costs, inventory, or time. Learn the skills necessary to apply Lean techniques to reduce waste and improve process efficiency. Gain a practical understanding of Lean continuous improvement techniques and how to use them to reduce errors, inventory, and production lead time. This module will:

- Define Lean, its importance, benefits, and objectives.
- Describe Lean tools, methodologies, and levels of deployment.
- Identify the roles and responsibilities of the Lean implementation team. • Discuss how these roles can be integrated into an organization.

## Module 3: Introduction to Lean Office and Service (45 minutes)

In the office and service environments, Lean improvement activities focus on eliminating waste and speeding up the process. This is accomplished by eliminating idle time, bureaucracy, and unnecessary redundancy. Lean Office and Service also helps organizations understand and predict changes in customer expectations, thereby enabling them to react quickly to meet customer needs. This module will:

- Discuss why Lean Office and Service is important to an organization's long-term success
- Discuss common obstacles organizations face when implementing Lean Office and Service and how to overcome them.
- Discuss the relationship between some important Lean tools, including process mapping, service family matrixes, and Value Stream Analysis, and demonstrate how to apply them.

## Module 4: Introduction to the Theory of Constraints (30 Minutes)

The Theory of Constraints (TOC) is a system improvement philosophy developed by Dr. Eliyahu M. Goldratt. TOC explains that the three ways for a company to make money are by reducing operating expenses, reducing inventory, and increasing throughput. This module will:

- Discuss the origins of the Theory of Constraints.
- Examine its philosophy and governing principles.
- Describe its applications.
- Walk through its Five Focusing Steps.
- Study some examples and review typical results.
- Examine the relationship between the Theory of Constraints and Critical Chain Program Management

## Module 5: Voice of the Customer (60 Minutes)

Voice of the customer (VOC) is used to describe the in-depth process of capturing a customer's expectations, preferences and aversions. This process is all about being proactive and constantly innovative to capture the changing requirements of the customers with time. It produces a detailed set of customer wants and needs, organized into a hierarchical structure, and then prioritized in terms of relative importance and satisfaction with current alternatives. Voice of the Customer studies typically consist of both qualitative and quantitative research steps. This module will:

- Describe methods on how to translate the Voice of the Customer (VOC) into measurable requirements.
- Explain how to apply a 5-step method for setting up and conducting a VOC study.
- Discuss techniques that are used to identify process variables which are correlated to customer requirements.

## Module 6: Managing of the Project (70 Minutes)

This module will:

- Identify the Process Owners, internal and external customers and stakeholders.
- Describe the GRPI Model and how to use it throughout the project.
- Apply the ARMI tool to clearly define stakeholder roles.
- Illustrate and complete a Project Charter.
- Conduct a stakeholder analysis.
- Plan the project, identify necessary resources, and discuss the different project roles.
- Explain the team dynamics necessary to be a Change Leader.

## Module 7: SIPOC (20 Minutes)

SIPOC is a tool that summarizes the inputs and outputs of one or more processes in table form. The acronym SIPOC stands for suppliers, inputs, process, outputs, and customers which form the columns of the table. This module will:

- Define SIPOC and describe its components.
- Discuss the purpose of SIPOC.
- Explain how to construct a SIPOC diagram.
- Describe how the information gained from a SIPOC analysis can be used.

## Module 8: Mapping the Process (50 Minutes)

Mapping the Process is a way to visually represent the sequence of actions that comprise a process. It helps to document, analyze, and improve on processes. This module will:

- Define a process and a process map.
- Describe the benefits of process mapping.
- Describe the differences between relationship maps, swim lane charts, and process maps.
- Discuss the three levels of detail used to describe a complex process.
- Walk through the five steps of process mapping.
- Demonstrate how to apply a process map.

## Module 9: Kaizen Event (35 Minutes)

Kaizen Events are highly effective team events that focus on achieving rapid results. Kaizen teams use various analytical and Lean techniques, such as Value Stream Mapping, Changeover Reduction, 5S, Total Productive Maintenance, and Workplace Design to implement rapid improvements. This module will:

- Define Kaizen Event and discuss its purpose and application.
- Explain how Kaizen Events can provide rapid business benefits and accelerate the execution of larger initiatives.
- Walk you through the structured approach for running Kaizen Events, in both office and manufacturing processes.

## Module 10: Eight Wastes (25 Minutes)

Producing anything that the customer doesn't want, or need is waste. It lowers your profits and leaves you less competitive in your market. Learn about the waste that is hidden, or taken for granted, in both manufacturing and office environments. Utilizing Lean techniques can help to dramatically reduce these wastes and their associated costs. This module will:

- Describe Value Add versus Non-Value Add activities and explain why they are important in a Lean implementation.
- Identify the Eight Wastes and discuss why they are a primary focus during Lean implementation. • Describe each of the Eight Wastes in detail and give examples.

## Module 11: A3 Problem Solving (35 Minutes)

A3 Problem Solving is a means of capturing all stages of a problem - identification, analysis, review, solution planning, and project management - on one A3 sized (11"x17") piece of paper. A3 Problem Solving facilitates visual tracking of a project. This module will:

- Show the importance of observation for Lean process improvement;
- Describe the A3 Report as a problem-solving and communication tool;
- Demonstrate how the Plan-Do-Check-Act, or PDCA, cycle is an integral part of A3;
- Explain the concept of Going to Gemba.
- Walk through the steps for completing an A3 Report, including key questions to ask at each stage.
- Discuss what makes a good A3.

## Module 12: Current State Value Stream Mapping (45 Minutes)

Value Stream Mapping is an essential planning tool used to identify improvements that will result in a Lean Value Stream. The first step is to create the Current State map, showing the Value Stream of a particular product or service. This module will:

- Define Value Stream and Product Family.
- Explain how to identify Product Families from groups of products.
- Describe a Current State Value Stream Map and discuss its purpose.
- Walk through the steps of creating a Current State Value Stream Map.
- Identify commonly used symbols; and describe how metrics are collected and represented.

## Module 13: Future State Value Stream Mapping (45 Minutes)

The goal of a Lean Value Stream is to produce the product or complete the process in the shortest Lead Time, at the highest quality and at the lowest cost possible, to deliver the highest level of customer satisfaction. After the Current State Value Stream Map has been created, the next step is to analyze the current process and flow to develop a clear vision of the desired Future State. For an organization to complete its Lean transformation process, it must understand the desired end goal. This module will:

- Define a Future State Value Stream Map and describe its purpose.
- Define and calculate Takt Time and discuss its role in Value Stream Mapping.
- Demonstrate how to analyze a Current State Value Stream Map to create a Future State Value Stream Map.
- Discuss how to enable flow and develop Pull.

## Module 14: Process-Based Costs (45 Minutes)

This module will:

- Discuss how the overall cost of quality relates to both the cost of poor quality and the cost of good quality.
- Define the Cost of Poor Quality (COPQ) and identify components of COPQ as they relate to the process.
- Explain how to calculate the Cost of Poor Quality.
- Identify the benefits derived by a company when they are able to reduce COPQ.

## Module 15: What is Statistics? (35 Minutes)

Statistics is the science of collecting, organizing, analyzing, and interpreting information. Statistics consists of methods and procedures to reduce a lot of data into a more manageable form. This module will:

- Introduce some basic terminology used in statistics.
- Identify the different kinds of data and ways to gather or collect the data
- Teach ways to organize information into a manageable form for the purpose of making informed decisions

## Module 16: Organizing and Presenting Data (40 Minutes)

It is not easy to use data in its raw form to make decisions. Data needs to be organized, summarized, and displayed so that the results can be presented. This module will:

- Describe techniques for displaying data in various tabular or graphical formats.
- Show how to interpret and answer questions about the data, whether qualitative or quantitative.

## Module 17: Pareto Analysis (40 Minutes)

Pareto analysis is a formal technique useful where many possible courses of action are competing for attention. In essence, the problem-solver estimates the benefit delivered by each action, then selects a number of the most effective actions that deliver a total benefit reasonably close to the maximal possible one. This module will:

- Explain how to create a Pareto Chart, including a cumulative relative frequency line.
- Given data and a Pareto Chart, describe how to use a variable to weight the original data and produce another Pareto Chart.
- Discuss how to use stratification methods to perform in depth Pareto analysis of the data.
- Explain how to interpret a Pareto Chart to make a business decision.

## Module 18: Scatter Diagrams (40 Minutes)

Scatter Diagrams are graphs in which the values of two variables are plotted along two axes. The pattern of the resulting points will reveal if there is any sort of relationship between the variables. This module will:

- Show how to determine if two variables plotted on a scatter diagram appear to be correlated and to what degree.
- How to build a scatter diagram.
- How to avoid errors in analyzing scatter diagrams.
- How to use stratification to further explore the relationship between variables.

## Module 19: Measure of Central Tendency (40 Minutes)

In statistics, a central tendency (or, more commonly, a measure of central tendency) is a central value or a typical value for a probability distribution. It is occasionally called an average or just the center of the distribution. The most common measures of central tendency are the arithmetic mean, the median and the mode. A central tendency can be calculated for either a finite set of values or for a theoretical distribution, such as the normal distribution. This module will:

## Module 20: Measures of Dispersion (45 Minutes)

Measures of dispersion quantitatively express the degree of variation or dispersion of values in a population or in a sample. Common examples of measures of statistical dispersion are the variance, standard deviation and interquartile range. This module will:

- Calculate measures of dispersion such as range, variance, and standard deviation.
- Explain how a change in dispersion will affect the shape of the histogram.
- Demonstrate how a transformation made to the original data affects the standard deviation.
- Explain how to estimate the percentage of measurements within a specified interval of the mean.
- Calculate the Z score for a stated measurement.

## Module 21: Descriptive Statistics: Self-Assessment (45 Minutes)

## Module 22: Measurement System Analysis (55 Minutes)

A measurement systems analysis (MSA) is a specially designed experiment that seeks to identify the components of variation in the measurement. Just as processes that produce a product may vary, the process of obtaining measurements and data may have variation and produce defects. A measurement systems analysis evaluates the test method, measuring instruments, and the entire process of obtaining measurements to ensure the integrity of data used for analysis (usually quality analysis) and to understand the implications of measurement error for decisions made about a product or process. This module will:

- Identify the characteristics of a good measurement system.
- Identify the benefits of using a Gauge R&R study to validate the measurement system.
- Discuss the steps used to conduct a Gauge R&R study.
- Use the results of the Gauge R&R study to determine how effective the measurement system is

## Module 23: Introduction to Process Capability (55 Minutes)

A process is a unique combination of tools, materials, methods, and people engaged in producing a measurable output; for example, a manufacturing line for machine parts. All processes have inherent statistical variability which can be evaluated by statistical methods. The Process Capability is a measurable property of a process to the specification, expressed as a process capability index (e.g., Cpk or Cpm) or as a process performance index (e.g., Ppk or Ppm). The output of this measurement is usually illustrated by a histogram and calculations that predict how many parts will be produced out of specification (OOS). Two parts of process capability are: 1) Measure the variability of the output of a process, and 2) Compare that variability with a proposed specification or product tolerance. This module will:

- Determine how well a process is able to meet customer requirements by measure of process capability.
- Identify when one process is more capable than another.
- Distinguish capable from non-capable processes.
- Identify how sample measurements are used to estimate population values.
- Determine which Control Chart type is most appropriate for monitoring a particular process parameter.

## Module 24: Process Capability Assessments (70 Minutes)

This module will:

- Compute Cp, Cpk, Pp, and Ppk values for processes using continuous data.
- Interpret Cp, Cpk, Pp and Ppk and relate them to a defect level.
- Take relevant process information for a process using discrete data.
- Calculate process assessment measurements.
- Determine how well processes are meeting customer requirements.
- Look at a powerful operation metric called Rolled Throughput Yield



## Module 25: Cause and Effect Diagrams (65 Minutes)

Cause and effect means that an action or event will produce a reaction or response in the form of another event. Cause and effect diagrams are used for root cause analysis of what factors are creating the risks within the project. The goal is to identify and treat the root of the problem, not the symptom. This module will:

- Explain the three basic steps for identifying and preventing problems.
- Apply basic cause and effect principles in order to identify the root cause of a problem.
- Teach techniques for gathering information for cause and effect analysis, including Five Whys and Brainstorming.
- Organize data and information for analysis using the Affinity Diagram and the Fishbone (or Ishikawa) Diagram.
- Analyze a process using Root Cause Analysis and The XY Matrix.

## Module 26: Failure Mode and Effects Analysis (45 Minutes)

Failure Mode and Effects Analysis (FMEA) is a systematic technique for failure analysis: An FMEA is often the first step of a system reliability study. It involves reviewing as many components, assemblies, and subsystems as possible to identify failure modes, and their causes and effects. For each component, the failure modes and their resulting effects on the rest of the system are recorded in a specific FMEA worksheet. This module will:

- Define FMEA and discuss its use as a project risk assessment tool.
- Describe the 10 steps for constructing a process FMEA.
- Explain the FMEA scoring criteria.
- Discuss how to translate FMEA results into action.

## Module 27: Introduction to Inferential Statistics (30 Minutes)

This module will:

- Distinguish between the use of descriptive and inferential statistics.
- Explain the concept of using a confidence interval to estimate a population parameter.
- Identify when hypothesis testing may be appropriate and explain the methodology as it relates to a scenario.

## Module 28: Introduction to Hypothesis Testing (75 Minutes)

We will explain the purpose of hypothesis testing and show how to interpret the results of various hypothesis tests. This module will:

- Discuss the relationship between probability and p-value.
- Describe how to state the null hypothesis and the alternative hypothesis when provided with a test scenario.
- Explain how to select the proper hypothesis test to use, based on data type.
- Conduct several hypothesis tests for continuous and discrete data.

## Module 29: Introduction to Linear Regression (35 Minutes)

This module will:

- Review how to use a scatter plot to determine if two variables appear correlated and to what degree.
- Explain how to calculate the correlation coefficient and the coefficient of determination.
- Show how regression analysis can be used to predict the value of one variable from another variable by fitting a least squares regression line to the data and judging the validity of the model.
- Describe how to use information generated by a computer output from a simple linear regression to write the equation of the line and perform predictions based upon the model.

## Module 30: Introduction to Design of Experiments (45 Minutes)

This module will:

- Define Design of Experiments (DOE).
- Describe its purpose, importance, and benefits.
- Define key terms associated with DOE.
- Explain how to conduct a well-designed statistical experiment.
- Describe the five phases used for applying DOE.
- Walk through the steps for each phase as we apply DOE to a sample experiment

## Module 31: 5S (40 Minutes)

5S is a technique that results in a workplace that is clean, uncluttered, safe, and well organized. The 5S pillars provide a methodology for organizing, cleaning, developing, and sustaining a productive work environment. A 5S environment has "a place for everything and everything in its place," with all tools and materials ready where and when they are needed. Learn how 5S can help reduce waste and optimize productivity in any work environment. This module will:

- Discuss 5S and describe its overall purpose and benefits, and identify the five phases of its process.
- For each phase, drill down to discuss key objectives, tools or methods used to reach those objectives, and the benefits achieved.
- Introduce a sixth "S," Safety.

## Module 32: Visual Management (25 Minutes)

Visual Management is the establishment of a workplace where performance conditions can be understood by sight. Problem areas are highlighted so employees can take immediate action to eliminate waste. One of the most important benefits of a visual workplace is that even someone unfamiliar with the process can see what is happening, identify errors, and tell if anything is out of place or missing. This module will:

- Define Visual Management and describe its purpose and benefits.
- Introduce the three characteristics of Visual Management Self Explaining, Self-Regulating, and Self Improving - and discuss why they are important.
- Describe the difference between Visual Controls and Visual Displays, giving examples of each.

## Module 33: Standard Work (25 Minutes)

Standard Work is an essential building block of a Lean Enterprise. It helps ensure that each step in the process is clearly defined so that work can be performed repeatedly in the same manner. Variations in processes result in mistakes or other quality problems that require inspection and rework. This module will:

- Define Standard Work from a Lean perspective.
- Discuss its business benefits; explain why it is the basis for improvement.
- Explain how to create, implement, and improve Standard Work for both office and manufacturing processes.

## Module 34: Error Proofing (20 Minutes)

Error Proofing is used to ensure products and processes are completed correctly the first time. The goal of error proofing is to prevent the occurrence of defects and to ensure that mistakes are detected when they occur. Because people can make mistakes even in inspection, error proofing often relies on mechanisms built into tools or systems that automatically signal when problems occur or prevent the process from continuing until the proper conditions are met. This module will:

- Define Error Proofing from a Lean perspective.
- Describe its business benefits.
- Discuss how it can improve quality and reduce failures and omissions • Illustrate the 6-Step error proofing process and how to apply it.
- Explain how to implement Error Proofing for both office and manufacturing processes.

## Module 35: Changeover Reduction (20 Minutes)

Changeover Reduction is a structured methodology and technique used to reduce the combined amount of setup and start-up time it takes to change a process from running one product to running the next one. It is one of the fundamental techniques in Lean manufacturing and a key to waste reduction. This module will:

- Define Changeover Reduction.
- Provide a brief overview of its origin.
- Discuss its benefits and explain how it supports and enables Lean waste reduction.
- Define Takt time.
- Distinguish between external and internal work, and discuss the relevance of each.
- Provide a step-by-step guide to implementing a successful Changeover Reduction program.

## Module 36: Workplace Design and Layout (25 Minutes)

Creating high performance work spaces or manufacturing cells involves much more than moving machines and people closer together. Well-designed work places eliminate waste and help to optimize material, people, and information flow. The work flows in alignment with value streams rather than according to functional teams or departments. This module will:

- Describe how Lean Workplace Design differs from traditional approaches.
- Discuss its business benefits.
- Show how it is used to improve quality and reduce lead times.
- Explain how to create effective Workplace Design for office and manufacturing processes

## Module 37: Flow and Pull Systems (35 Minutes)

The concept of "Pull" in a Lean office or factory means to respond to the pull, or demand, of the customer. Lean companies design their operations and processes to respond to the ever-changing requirements of customers. This module will:

- Define Continuous or One-Piece Flow and the introductory aspects of Pull Systems.
- Explain where to implement Pull Systems.
- Discuss how they enable effective flow of information and materials, and identify which tools are best suited for various office and manufacturing environments.
- Explain how to apply Pull Systems in a comprehensive and systematic way.

## Module 38: Total Productive Maintenance (35 Minutes)

Total Productive Maintenance (TPM) is a team and shop floor based initiative focused on optimizing the effectiveness of manufacturing equipment. TPM helps workers efficiently care for the equipment and machines they work with, which will reduce costs, including money and space tied up with 'spare parts inventory. This module will:

- Describe the primary benefits gained from Total Productive Maintenance.
- Identify the four major categories of maintenance.
- Define Overall Equipment Effectiveness.

## Module 39: Selecting the Solution (35 Minutes)

Once the real root cause of a problem has been isolated, the team uses the information gathered to creatively generate potential solutions. It then evaluates the alternate solutions, assesses the risks, and makes its selection. This module will:

- Examine the process of selecting a solution for an improvement project.
- Discuss how potential savings affect a projects Return On Investment (or P01).
- Describe the purpose and application of common tools used to generate and analyze potential solutions and to assess risk.
- Explain how all these components come together in the implementation plan.

## Module 40: Control Charts (85 Minutes)

Control Charts are a tool for distinguishing between the two types of variation causes (Common Cause and Special Cause). They are used to determine if a manufacturing or business process is in a state of statistical control. This module will:

- Define Control Charts and discuss their purpose.
- Explain how to determine whether to use an Attribute or a Variables Control Chart.
- Describe the steps for setting up a Control Chart.
- Discuss the basic rules for using Control Charts.
- Explain how-to identify which Control Chart type is most appropriate for monitoring a given process parameter.

## Module 41: Controlling the Process (30 Minutes)

The last phase of the DMAIC process is Control. Once a solution has been selected and implemented, the team must make sure that the process improvements will be sustained in the future, and the people or system, will not revert to the old way of doing things. The purpose of the Control phase is to maintain a stable and predictable process that meets customer requirements; to make adjustments to meet any changing business requirements and close the project. This module will:

- Discuss the purpose of the Control phase in a Lean Six Sigma DMAIC project.
- Walk through the steps for controlling the process.
- Describe the basic elements of a Control Plan, discuss its importance, and explain how to create and implement it.
- Describe the key components required for effectively closing the project, including documentation, handoff, and leverage.