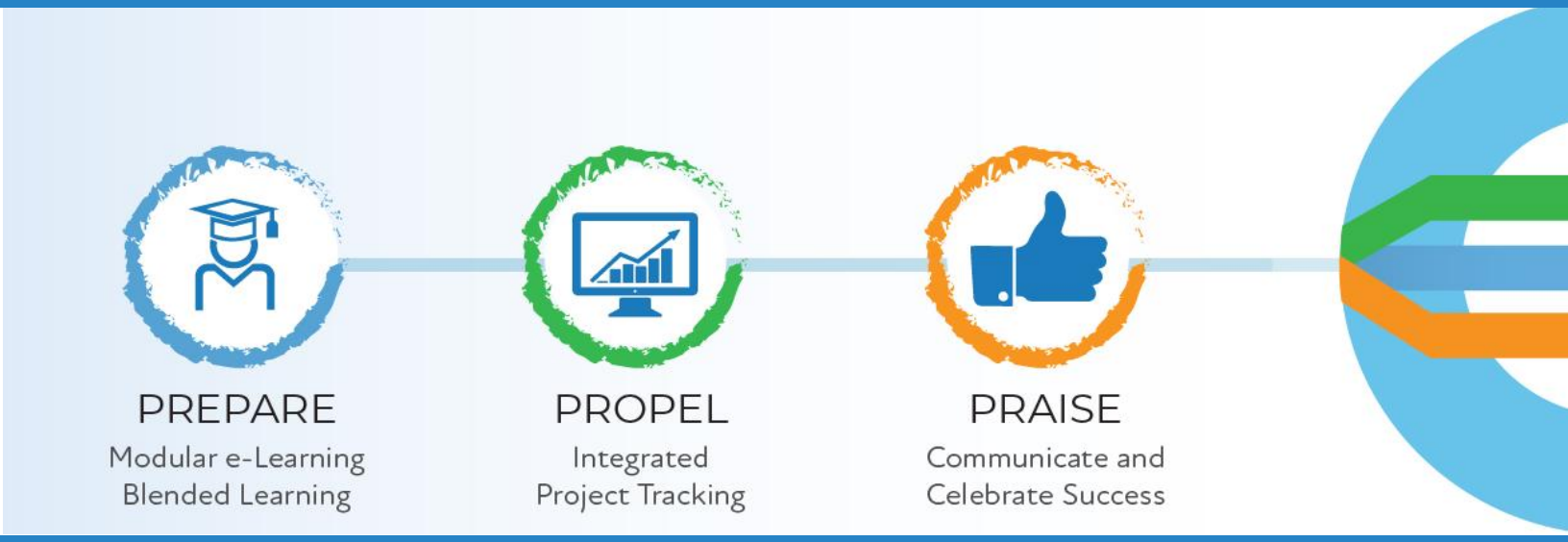

OpusWorks®
Rapid Scaling Made Real

Curriculum Guide

Solution Tools

February 2026
CONFIDENTIAL
Version 6.3

Welcome to this Guide!

PURPOSE:

The purpose of this document is to provide descriptions and objectives of all OpusWorks online eLearning modules, Learning Nodes, and solution offerings. By exploring these resources, you'll gain a clear understanding of our standard courses and discover ways to create customized learning paths that align with your organization's goals. Additionally, the guide showcase tools and strategies designed to extend learning, support deployment, and accelerate measurable results.

HOW TO USE THIS DOCUMENT:

This document is broken down by courses (Foundational Skills, Basic Leader, etc.). These are our recommended, standard courses. To find the course you are interested in, simply refer to the Table of Contents.

Our standard courses consist of a group of eLearning modules and in each course, you will see the list of recommended modules for that course. These are only recommendations and using your own branded portal, you can tailor the class to meet your needs and specifications.

You can search easily through this document by pressing the "Control (CTRL)" key and the "F" key at the same time (Ctrl + F). This will bring up a search box and you can enter the word(s) you are looking for.

ABOUT US:

We make smart learning that actually works. OpusWorks blends AI, the cloud, and top-tier CPI content into one sleek platform. We help organizations align CI with strategy through custom training and powerful tools. From virtual classes to expert support, we help people level up, teams get sharp, and organizations make real impact—fast.

Whether you're just starting out or leading an enterprise transformation, our learning platform helps you build skills, solve problems, and create real, lasting change. From small teams to global rollouts, OpusWorks delivers the tools, support, and strategy you need to make every training dollar count. Get it right. Get real results.

Real Continuous Process Improvement. Real Results.

Visit us at www.opusworks.com to learn more.

Note: The minutes listed for each module are approximate. Our modules are self-paced and interactive. The amount of time it takes to complete them will depend on several factors, such as student preferences, prior knowledge of the material, and learning speed, as well as time spent completing practice exercises, studying supporting materials, and reviewing the module content.

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- Eight Wastes
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- Intro to Kanban*
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(Green Belt)

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- Flow and Pull Systems for Healthcare
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- Intro to Lean for Healthcare
- Kaizen Event for Healthcare
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- Standard Work for Healthcare
- Visual Management for Healthcare
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- Principle 6 – Assure Quality at the Source
- Principle 7 – Improve Flow & Pull Value
- Principle 8 – Think Systemically
- Principle 9 – Create Constancy of Purpose
- Principle 10 – Create Value for the Customer

**Indicates modules that are manufacturing intensive.*

*Modules are currently available in Spanish, Portuguese, and Mandarin. Black Belt module translations are **coming soon**.*

COMPETENCIES BY LEVEL

OpusWorks' Competency-Based learning is a fast, activity-based, learner-centric way to develop skills, one at a time, just-in-time. The learning objective for competency nodes are 10 minutes each.

Competency e-Learning Translations

Learning Nodes can be viewed in any language by adjusting your browser's language settings

Basic Problem-Solving

- Introduction to Lean Six Sigma
- The Five Principles of Lean
- Waste Elimination
- Going to Gemba
- 5S
- Visual Workplace
- Project Management
- PDCA
- Voice of the Process
- Process Mapping
- SIPOC
- Spaghetti Diagram
- Root Cause Analysis
- Benchmarking
- Design Thinking
- Implementing Solutions
- Mistake-Proofing
- Standard Work
- Follow up and Follow Through

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- Swimlane Process Map
- Voice of the Process (VOP)
- Theory of Constraints (TOC)
- Leading Teams
- Leading Change
- 5S
- Time and Motion Study
- Lean Metrics
- Graphical Analysis
- Pareto Analysis
- Flow and Pull Systems
- Workplace Design and Layout
- Changeover Reduction
- Total Productive Maintenance

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- Run Chart
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- Controlling the Process (Module)
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- Mentoring Competencies

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- Artisan Cocoa Company (Chocolate Manufacturer)
- EcoPlay (Toy Manufacturer)
- IronTrails (Logistics)*

Intermediate Level

- USAF C-130 Propeller Shop (Military)
- XYZ Electronics
- Shampoochies Pet Salon
- Memorial Hospital
- Guardian Snappy (US Space Force)

Advanced Level

- Casita Tiny Homes (Tiny House Manufacturer)
- Department of Motor Vehicle (DMV)
- DOT Agriculture Certification Office (State Government)
- Northeast Airlines (Passenger Airline Company)
- WayFair Inns (Hospitality Services)
- Falcon Drones (Drone Manufacturer)
- Moose and Moon (Brewery)
- Finova Bank (Financial Services)

FOUNDATIONAL SKILLS

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:

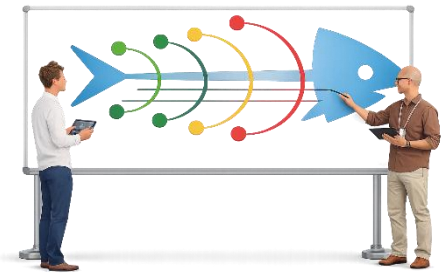
- Discuss 5S and describe its overall purpose and benefits and identify the five phases of its process.
- For each phase, drill down to discuss key objectives, tools or methods used to reach those objectives, and the benefits achieved.
- Introduce a sixth "S," Safety.

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.

Cause and Effect Diagrams:
(65 minutes)
Cause and effect mean 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.

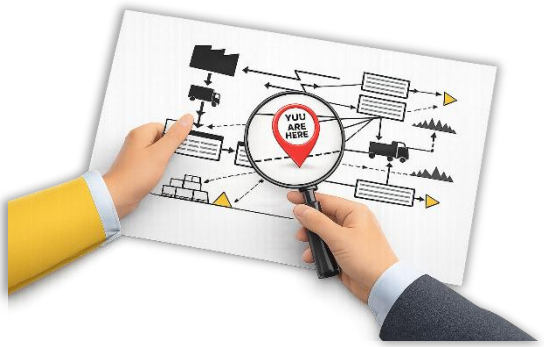


Changeover Reduction:
(55 minutes)
Changeover Reduction is a structured methodology and technique used to reduce the combined amount of set-up and start-up time it takes to change a process from running one product to running the next one It is one of the fundamental techniques in Lean manufacturing 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.

Current State Value Stream Mapping:
(40 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:

- Explain the overall concepts and purpose of Value Stream Mapping Describe a Current State Value
- Stream Map
- Describe the three parts of a Value Stream Map
- Show how product and process offerings are grouped into product families according to similar
- processing steps
- List the common VSM symbols and their meanings
- Describe the steps for constructing a Current State Value Stream Map
- Explain key differences between manufacturing and office/service VSMs
- Apply the steps for creating a VSM in an office or service environment



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.

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.

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.

Focused Improvement Events *(Please note, this module is Manufacturing Intensive)***:**
(60 minutes)
Focused Improvement Events, also known as Kaizen Events, are short duration focused projects designed to define and implement improvements in a specific area or process step.
This module will:

- Define Focused Improvement, or Kaizen Events, and discuss the purpose and application
- Explain how these activities can provide rapid business benefits and accelerate the execution of larger initiatives
- Walk through the structured approach for running Focused Improvement Events in both office and manufacturing processes
- Show that the Focused Improvement Event (FIE) is one of the most powerful ways to implement E3

Future State Value Stream Mapping:
(30 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, in order 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
- Explain the use of several Lean metrics in analyzing a process flow for improvement
- Describe how Continuous Improvement (CPI) activities can be used to transform a Current State Value Stream map into a Future State Value Stream map
- Explain Pull Systems and how to display them on a Future State Value Stream map
- Contrast the application of Future State Value Stream Maps to production and office/administrative processes

Going to Gemba *(Please note, this module is Manufacturing Intensive)***:**
(20 minutes)
Gemba is a Japanese term for "actual place" and describes the place where the value-creating work happens. To "go to gemba" is to discover the truth. This module will:

- Explain the concept of Going to Gemba.
- Walk through the steps of a Problem-Solving Process.
- Show the importance of going where the value adding work is being done.
- Describe the ground rules for a successful Gemba exercise.
- Discuss how Gemba can be incorporated into other Lean events, like changeover reduction.

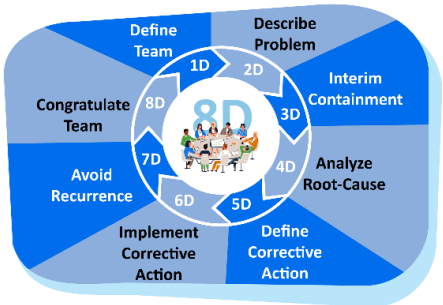
Introduction to Control Charts
(40 Minutes)
Control Charts are a vital tool in data collection and monitoring. This module will introduce the tool, its benefits, how it is used, and how it is interpreted.

This module will:

- Define Control Charts and discuss their purpose
- Explain how Control Charts are used for monitoring and sustaining improved processes
- Explain common cause and special cause variation and their relationship to process control
- Describe ways to improve out-of-control or unstable processes
- Provide examples for variables and attribute Control Charts

Introduction to 8D:
(45 minutes)
8D, or "Eight Disciplines," is a problem-solving methodology for product and process improvement. This module will:

- Teach you how to use 8D to identify, correct, and eliminate the recurrence of quality problems.



Introduction to Kanban *(Please note, this module is Manufacturing Intensive)*:
(20 minutes)
Kanban, a Japanese word that means “card, is a common term used with Pull Systems. This module will:

- Explain what Kanban is.
- Describe the many types of Kanban in detail.

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.

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.

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:

- Define Six Sigma and discuss its origin and evolution.
- Describe how it differs from Lean.
- 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.

Introduction to the Theory of Constraints
(45 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 Project Management

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.

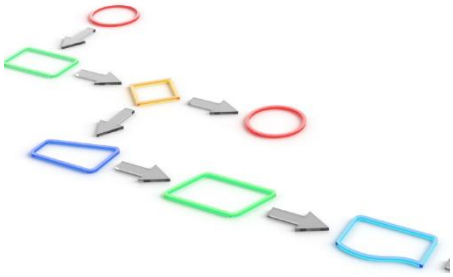
Lean Metrics:
(35 minutes)
These Lean metrics will be used with several tools including value stream mapping to identify barriers to flow. Removing barriers to flow is a critical step in process improvement. Barriers to flow come in many forms, but some of the most common are processes that did not produce to takt, stoppages, and inventory buildup between steps. To enable flow, all processes must be synchronized to produce at the required Takt Time. Quality problems also cause many flow issues. For example, they can prevent a process for producing to Takt; necessitate an increase in inventory to ensure that acceptable product is available: an increase inspection cost and time. We can uncover quality issues by identifying the symptoms of inventory, long cycle times, and added inspection steps.

This module will:

- Apply Little's Law which describes the relationship between process throughput, inventory and flow and lead time.
- Describe how to calculate several quality metrics including First Time Yield and Rolled Throughput Yield.
- Define and calculate several process flow metrics including Takt Time, Cycle Time, Total Cycle Time, Process Lead Time, Process Cycle Efficiency, and Total Lead Time.

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 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 create a process map.



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 maximum 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 produce another Pareto chart of the variable using weighted data.
- 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.

PDCA:
(30 minutes)
PDCA stands for “Plan-Do-Check-Act” and is a quality control tool. This module will:

- Provide a step-by-step guide to the PDCA cycle.
- Demonstrate the role of PDCA in Kaizen events and other process improvement initiatives.

Project Selection:
(30 Minutes)
Don’t get caught in a project to nowhere. This module will help you better understand that not all projects are created equal! Following the critical success factors presented in this module will ensure you choose meaningful projects and give them the best chance of success.

This module will:

- Identify the key factors of a successful Lean Six Sigma project.
- Articulate the important elements of project metric identification, including key inputs and outputs and the role of the “Critical to Xs”.
- Describe Hoshin Kanri and how LSS projects are a product of the strategic planning process.

Project Support:
(30 minutes)
For projects to be successful, they must be supported. This module will spell out how each of the roles that supports process improvement projects can assure the successful completion of these projects.

- Describe various types of projects that Green Belts and Black Belts lead and some of the tools they apply.
- List some of the more common failure modes of unsuccessful projects.
- Provide actionable information so supporters of a GB or a BB-led LSS/CI project can assure the successful completion of these projects.
- Analyze how a leader from a company that has an LSS/CI program can assure the successful launch and continuation of the program.

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.

Standard Work:
(30 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.

Takt Time *(Please note, this module is Manufacturing Intensive)***:**
(20 minutes)
Takt time is the available time divided by the customer demand during the same period. It is an easy calculation, but it can change by changing the available time or the customer demand, or both. This module will:

- Calculate Takt Time.
- Describe the two types of pacemakers, Visual and Physical.
- Explain different types of pacemakers, including Day by the Hour (DBTH), and Moving Production Line.

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.

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.

Waste of Waiting:
(8 minutes)
Waiting is one of the common wastes and often results in inefficient use of people and/or equipment. This module will:

- Discuss the waste of waiting

Workplace Design and Layout:
(25 minutes)
Creating high-performance workspaces or manufacturing cells involves much more than moving machines and people closer together. Well-designed workplaces eliminate waste and help to optimize material, people, and information flow. The workflows are 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.

BASIC TEAM LEADER/GREEN BELT

Spanish, Portuguese and Mandarin Translations (**COMING SOON**)

3P/ Production Preparation Process *(Please note, this module is Manufacturing Intensive)*:
(50 minutes)
This module will:

- Define the 3P Production Preparation Process and discuss its purpose and application.
- Explain how and when 3P can be used to create exponential change, designing waste-free products and processes.
- Describe the phases of 3P and how to facilitate a team of subject matter experts through the 3P Process.

Control Charts I:
(30 minutes)
Control Charts are meaningless if the correct chart is not used. This module will help students learn how to select, create, and apply the most common variable Control Charts.

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.

Control Charts II:
(40 Minutes)
Control Charts are meaningless if the correct chart is not used. This module will help students learn how to select, create, and apply the most common attribute Control Charts.

- Use the logic tree to determine the appropriate chart based on data type and subgroup size
- Describe the steps needed to create the four most common attribute control charts
- Explain how these charts can be applied

Controlling the Process:
(60 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.

Design for Manufacturability and Assembly (DFMA) *(Please note, this module is Manufacturing Intensive)*:
(35 minutes)
This module will:

- Explore DFMA and determine what it is.
- Learn how DFMA affects a company's competitiveness.
- Discover the steps, processes, and tools used to achieve success.

Developing Lean Thinkers *(Please note, this module is Manufacturing Intensive)*:
(40 minutes)
This module will:

- Describe what "Lean Thinking" is all about and why it's important.
- Explain the use of Kata to develop Lean Thinkers.
- Discuss the Kata of Improvement (how to become a problem solver).
- Explore the Kata of Coaching (helping others become problem solvers).
- How developing Lean Thinkers is incorporated into your everyday process.

Failure Mode and Effects Analysis (FMEA):
(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.

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.

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.

Introduction to Measurement Systems Analysis for Attribute Data
(35 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 when to use Attribute Agreement Analysis.
- Describe how accuracy and precision apply to attribute data.
- Set up, conduct, and analyze the data for an attribute agreement analysis.
- Interpret the results of the analysis to determine the effectiveness of the measurement system.
- Determine when the measurement system should be improved or redesigned.

Introduction to Measurement Systems Analysis for Continuous Data
(45 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 process and the two types of measurement system analysis.
- Identify the benefits of using a Gage R&R study to validate your measurement system.
- Discuss the steps to conduct a Gage R&R study.
- Use the results of the study to determine the effectiveness of the measurement system.

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 can 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.

Leader Standard Work *(Please note, this module is Manufacturing Intensive)***:**
(30 minutes)
Standard Work is one of the key Lean Principles. This module will:

- Review Standard Work for Lean production environments.
- Discuss Leader Standard Work in detail.
- Explain how Leader Standard Work is an integral part of our organization.

Managing the Project:
(60 minutes)
This module will:

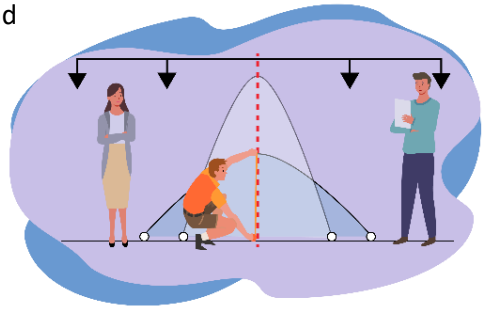
- Identify the Process Owners, internal and external customers and stakeholders.
- Describe the GRPI Model and how to use it throughout the project.
- Apply the ARMI tool to clearly define stakeholder roles.
- Illustrate and complete a Project Charter.
- Conduct a stakeholder analysis.
- Plan the project,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

Measures 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:

- Discuss the three Measures of Central Tendency (40 minutes): mean, median, and mode.
- Describe how to estimate the relationship of the median and the mean, based upon the shape of the histogram.
- Explore how changes to the original data affect the mean, median, and mode.
- Calculate estimates for the median and mean and how to identify the modal class.

Measures of Dispersion:
(60 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.



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.

Performance Management *(Please note, this module is Manufacturing Intensive)***:**
(35 minutes)
This module will:

- Discuss how to apply Performance Management to your organization and the benefits of doing so.
- Explore ways to "start getting what we expect," rather than expecting the same results we have always received.
- Demonstrate how to transition from non-value-added activities to more value-added activities.

Point Kaizen *(Please note, this module is Manufacturing Intensive)***:**
(15 minutes)
This module will:

- Give an overview of Point Kaizen, a method or approach to see waste and take immediate action.
- Describe how to find 30 opportunities for improvement in 30 minutes.
- Explain the importance of the expectation of daily, relentless improvement and how to make an improvement in an hour or less.
- Discuss the principles of motion economy and take a close look at the Point Kaizen Gemba Exercise.

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.

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 can reduce COPQ.

Production Leveling *(Please note, this module is Manufacturing Intensive)***:**
(45 minutes):
This module will:

- Define Production Leveling and its goals while also explaining the relationship between takt time and production leveling.
- Describe the two types of Production Leveling: by Volume Demand and by Product Mix or Type Demand.
- Show the importance of importance of "pull" in Production Leveling.

Rewards and Recognition *(Please note, this module is Manufacturing Intensive)***:**
(20 minutes)
Reward and Recognition programs are a powerful tool you can use to increase engagement. Reward and Recognition programs motivate employees to perform at higher levels. This module will:

- Discuss how to establish an effective Reward and Recognition Program
- Explore ways to boost employee performance, motivation, and morale through Rewards and Recognition
- Discuss the two major categories of Rewards and Recognition —formal and informal
- Review examples and suggestions for ways to recognize employee achievements

Scatter Diagrams:
(35 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.

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 project's Return on Investment (or ROI).
- 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.

Translating the VOC:
(25 minutes)
Without understanding the Voice of the Customer, you will never know if you are hitting the mark or if the mark you are hitting is right one. This module connects customer need to the measurable output variables critical to success.

This module will:

- Define Voice of the Customer as an ongoing process
- Describe the three categories of customer needs
- Identify Critical to (CTx) characteristics
- Use a CT Tree to break CTx's into Key Output Variables (KPOVs) and measurable requirements

Conducting a VOC Study:
(40 Minutes)
This module walks you through the steps necessary to conduct an effective VOC Study for your organization. Following the Plan, Develop, Collect, Analyze, and Integrate steps taught within the module will ensure that critical elements are not missed when planning your next study.

This module will:

- List and describe the five steps for setting up a Voice of the Customer Study
- Gather and use the data in your organization's improvement

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.

ADVANCED TEAM LEADER/BLACK BELT

Advanced Control Charts:
(50 minutes)
Building upon the knowledge conferred in Control Charts I and II, Advanced Control Charts takes students to a deeper level of understanding of all aspects of control chart construction and use. Subgrouping, special case control charts, and capturing process performance changes over time, are all covered in this advanced module.

Upon Completion of this module, you will be able to:

- Understand how to calculate the different elements of each type of control chart
- Understand the rationale behind the Nelson rules for out-of-control conditions
- Apply the principle of rational subgrouping for control chart sampling
- Describe special case control charts for short-run production, moving averages, and dispersion concerns (Laney Charts)
- Describe the concept of stages within control chars to show process performance changes over time

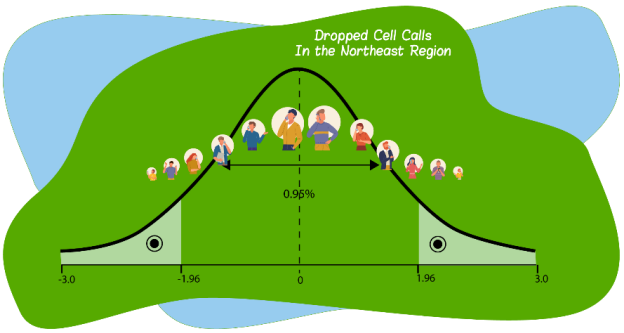
ANOVA (Analysis of Variance):
(80 minutes)
This module will:

- Identify when the method of ANOVA should be applied.
- Interpret the results and draw valid statistical conclusions from a completed ANOVA table.
- Determine the appropriate degrees of freedom and how to calculate the F-values for one-way, two-way, and nested designs.
- Interpret the results of main effects and interaction plots and draw valid statistical conclusions.

Comparing Means:
(50 minutes)
This module will:

- Compare two population means and define the difference between independent and dependent samples.
- Show how to compute an appropriate confidence interval for the difference of two population means for both independent and dependent variables.
- Interpret the meaning of the confidence interval.
- Describe how to perform a hypothesis test for the difference of two population means for both independent and dependent samples.

Confidence Interval for the Mean:
(45 minutes)
This module will:



- Define the differences between a point estimator and a confidence interval.
- Identify the appropriate steps in computing a confidence interval for a single population mean.
- Show how to interpret the meaning of the confidence interval for a population mean.
- Explain the meaning of a sampling distribution for a sample statistic and its relevance in computing a confidence interval for a population parameter.

Continuous Probability Distributions: Normal Curve:
(40 minutes)
This module will:

- Describe the characteristics of the normal probability distribution including the shape, central tendency, and dispersions.
- Describe how the standard deviation affects the shape of the normal distribution.
- Explain how to use sample data and a normal curve to predict the proportion of product which meets customer requirements.
- Explain how to use a normal curve to estimate the capability of a process.

Design of Experiments: Basic and Full Factorial:
(55 minutes)
DOE will illustrate two types of simple comparative experiments - the completely randomized design and the randomized block design This module will:

- Define a full factorial experiment.
- Show how to calculate the main and interaction effects.
- Demonstrate how to analyze the results of a full factorial design.
- Explain the role of replication.
- Describe the threats to statistical validity of a designed experiment.

Hypothesis Testing for Nonparametric Data:
(60 minutes)
This module will:

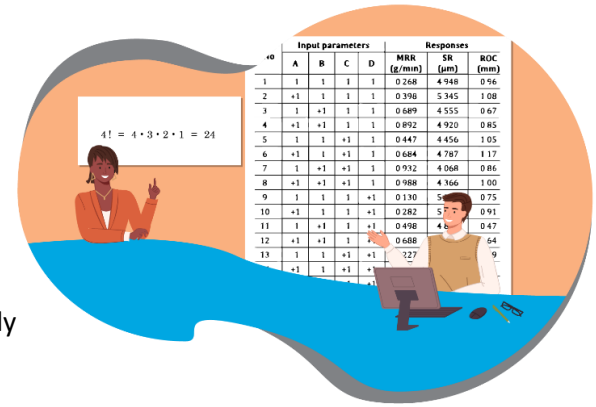
- Explain how to determine data normality and understand possible causes of non-normal data.
- Show how to select appropriate tests for nonparametric data and how to interpret nonparametric test statistics.
- Describe the purpose of transforming data and some of the techniques used to transform data.

Hypothesis Tests for the Mean:
(90 minutes)
This module will:

- Explain how to identify the appropriate form of a statistical hypothesis for testing a population mean.
- Show to perform a hypothesis test for a single population mean.
- State a valid conclusion based on the result of the test performed.
- Identify the risks associated with making a specific decision.

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



Making Inferences about Proportions:
(60 minutes)
This module will:

- Compare two population means and define the difference between independent and dependent samples.
- Show how to compute an appropriate confidence interval for the difference of two population means for both independent and dependent variables.
- Interpret the meaning of the confidence interval.
- Describe how to perform a hypothesis test for the difference of two population means for both independent and dependent samples.

Making Inferences about Variances:
(45 minutes)
This module will:

- Explain how to identify the appropriate form of a statistical hypothesis for testing population variances.
- Show how to perform a hypothesis test for either one or two population variances.
- Describe the steps for computing a confidence interval for population variance.

MSA Advanced Topics for Attribute Data
(25 minutes)
MSA Advanced Topics for Attribute Analysis builds upon the concepts learned in Introduction to Measurement Systems Analysis for Attribute Data. Using Minitab, students will perform an Attribute Agreement Analysis and use various methods to perform an analysis when an item or event cannot be measured twice. This module will:

- Perform Attribute Agreement Analysis with Minitab.
- Interpret the kappa statistic results.
- Use various methods to perform an analysis when an item or event cannot be measured twice.
- Describe methods for improving an attribute analysis measurement system

MSA Advanced Topics for Continuous Data
(35 minutes)
MSA Advanced Topics in Continuous Data builds upon the methods learned in Introduction to Measurement Systems Analysis for Continuous Data and gives students a deeper understanding of how and when to perform a Type 1 Gage R&R to determine the effectiveness of the measuring device. It also Identifies additional methods for performing a continuous data Gage R&R. This module will:

- Identify additional methods for performing a continuous data Gage R&R.
- Understand when and how to perform a Type I Gage R&R to determine the effectiveness of the measuring device.
- Discuss methods for improving a continuous data measurement system.

Multiple Regression:
(50 minutes)
This module will:

- Explain the purpose of multiple regression and how it differs from simple regression.
- Describe the elements of the multiple linear regression model and identify assumptions about the data required for regression analysis to work.
- Use the “best subsets” method to determine the possible regression models and apply several techniques for selecting the best model.
- Discuss what can go wrong with multiple regression that may lead to incorrect conclusions.

Probability Distributions: Discrete Random Variables:
(40 minutes)
This module will:

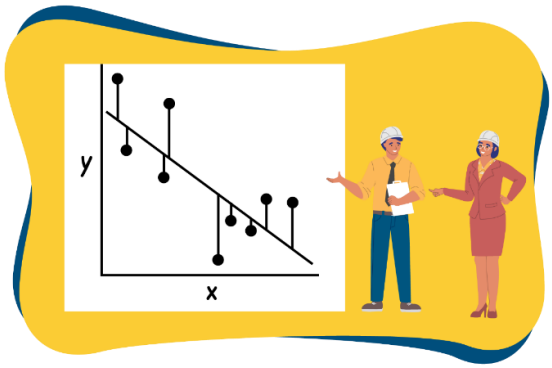
- Explain what a random variable is and distinguish between discrete and continuous random variables.
- Describe the properties of a discrete probability distribution.
- Calculate the mean, or expected value, and standard deviation.

Simple 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.

Strategy Deployment: X-Matrix *(Please note, this module is Manufacturing Intensive)***:**
(30 minutes)
This module will:

- Describe what Strategy Deployment is and its uses.
- Discuss where Strategy Deployment fits.
- Review the steps for developing a top-level X-Matrix and a Kaizen Event X-Matrix.



OPUSWORKS MASTER BLACK BELT (MBB)

The OpusWorks' MBB course is designed with an innovative perspective, with practical scenarios of great added value for tenured Lean Six Sigma Black Belts. For more information click.

Estimated time: Approximately 60 hours over 23 weeks

• 18 Weeks of synchronous, remote training (Gen 1)

• Participation in Five Tollgate events to reinforce classroom learning and focus on practical application

• Homework and Case Studies

CAPSTONE PROJECT SIMULATIONS

Our Capstone Project Simulations, designed for either in-person or virtual use, are rigorous process improvement events. Using step-by-step DMAIC methodologies, students address a familiar problem that is in desperate need of a solution – the driver's license renewal process or the Agricultural shipping certification process. During these Project Simulations, students work in teams and are guided through the e-Learning and team activities by a trained instructor/mentor. Everything students need to complete the project is accessible online: simulations, tutorials, templates, data sets, solutions and more.

Yellow Belt participants complete three Capstone Events throughout the virtual course, while in-person classes typically conclude with a one-day, hands-on Capstone following the core Yellow Belt instruction.

Green Belt Capstone Simulations offer flexible delivery options: the course by DMAIC phase or delivered as a comprehensive experience after training completion. When delivered after training, the Green Belt Capstone is typically conducted over three days.

PROP SHOP SIMULATION

For organizations in the Aerospace sector, our Prop Shop Simulation is also available. This immersive simulation replicates key operational challenges and can be customized to reflect your specific processes, equipment, and business objectives—ensuring relevance and immediate applicability in your workplace.

LEAN ESSENTIALS FOR HEALTHCARE

5S Plus Safety for Healthcare:
(40 minutes)
This module will:

- Introduce 5S plus Safety.
- Describe its overall purpose and benefits in Healthcare.
- Identify the phases of its process.
- Drill down to discuss key objectives.
- Tools or methods used to reach those objectives, and the benefits achieved.

A3 Problem Solving for Healthcare:
(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 within a Healthcare environment.
- Describe the A3 Report as a Healthcare 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.

Current State Value Stream Mapping for Healthcare:
(45 minutes)
This module will:

- 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.
- Describe how metrics are collected and represented.

Eight Wastes for Healthcare:
(25 minutes)
This module will:

- Describe Value Add versus Non-Value Add activities.
- 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.

Error Proofing for Healthcare:
(20 minutes)
This module will:

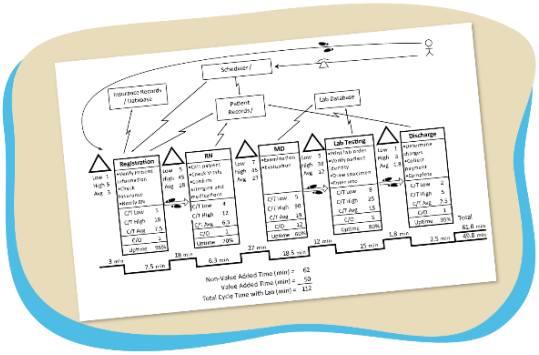
- Define Error Proofing from a Lean perspective.
- Describe the benefits a healthcare organization can expect.
- Discuss how it can improve patient safety and service quality while reducing failures and omissions.
- Understand and be able to apply the 6-Step error proofing process.
- Explain how to implement Error Proofing for healthcare processes.

Flow and Pull Systems for Healthcare:
(35 minutes)
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 healthcare environments.
- Explain how to apply Pull Systems in a comprehensive and systematic way.

Future State Value Stream Mapping for Healthcare:
(45 minutes)
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.



Kaizen Event for Healthcare:
(35 minutes)
This module will:

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

Introduction to Lean for Healthcare:
(30 minutes)
This module will:

- Why the implementation of Lean is vital to the continuous improvement of a healthcare system.
- The basics of the Lean improvement methodology.
- The five key principles of Lean, and how they work in a healthcare environment.

PDCA:
(30 minutes)
PDCA stands for "Plan-Do-Check-Act" and is a quality control tool. This module will:

- Provide a step-by-step guide to the PDCA cycle.
- Demonstrate the role of PDCA in Kaizen events and other process improvement initiatives.

Standard Work for Healthcare:
(30 minutes)
This module will:

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

Visual Management for Healthcare:
(25 minutes)
This module will:

- Define Visual Management and describe its purpose and benefits in healthcare.
- 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.

Workplace Design for Healthcare:
(25 minutes)
This module will:

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

LEAN ESSENTIALS FOR EDUCATION

5S Plus Safety for Education:
(40 minutes)
This module will:

- Introduce 5S plus safety, describe its overall purpose and benefits in Education, and identify the phases of its process.
- Drill down for each phase to discuss key objectives, tools or methods used to reach those objectives, and the benefits achieved.

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:

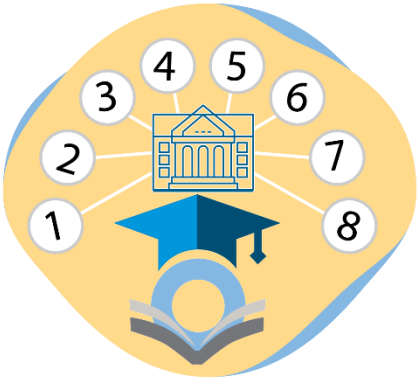
- Show the importance of observation for Lean process improvement.
- Describe the A3 Report as a problem-solving and communication tool.
- Demonstrate how the Plan-Do-Check-Act, or PDCA, cycle is an integral part of A3.
- Walk through the steps for completing an A3 Report, including key questions to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

Current State Value Stream Mapping for Education:
(45 minutes)
This module will:

- Define a Value Stream.
- 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.

Eight Wastes for Education:
(25 minutes)
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.
- Discuss each of the Eight Wastes in detail and give examples.

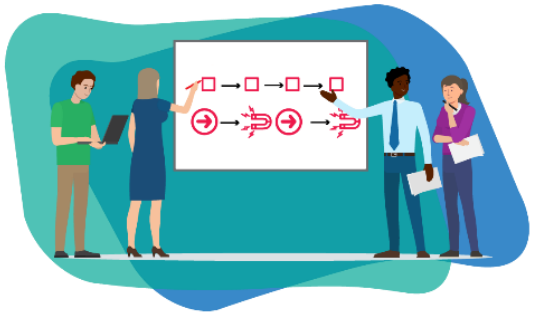


Error Proofing for Education:
(20 minutes):
This module will:

- Define Error Proofing from a Lean perspective.
- Describe the benefits an educational organization can expect.
- Discuss how it can improve student and customer safety, confidentiality, and service quality while reducing failures and omissions.
- Show how to apply the 6-Step error-proofing process.
- Explain how to implement Error Proofing for education processes.

Flow and Pull Systems for Education:
(35 minutes)
This module will:

- Define Continuous or One-Piece Flow and the introductory aspects of Pull Systems.
- Explain where to implement Pull Systems in the educational environment.
- Discuss how they enable the effective flow of information and materials.
- Identify which tools are best suited for various office and education environments.



Future State Value Stream Mapping for Education:
(45 minutes)
This module will:

- Define a Future State Value Stream Map and describe its purpose.
- Define and calculate several Lean metrics and discuss their roles 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.

Introduction to Lean for Education:
(30 minutes)
This module will:

- Discuss why the implementation of Lean is vital to the continuous improvement of an educational system.
- Define the basics of the Lean improvement methodology.
- Learn the five key principles of Lean, and how they work in an education environment.

Kaizen Event for Education:
(35 minutes)
This module will:

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

PDCA:
(30 minutes)
PDCA stands for "Plan-Do-Check-Act" and is a quality control tool. This module will:

- Provide a step-by-step guide to the PDCA cycle.
- Demonstrate the role of PDCA in Kaizen events and other process improvement initiatives.

Standard Work for Education:
(30 minutes):
This module will:

- Define Standard Work from a Lean perspective.
- Discuss the benefits of Standard Work.
- Explain why it is the basis for improvement.
- Explain how to create, implement, and improve Standard Work for education and back-office processes.

Visual Management for Education:
(25 minutes):
This module will:

- Define Visual Management and describe its purpose and benefits in education.
- 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.

Workplace Design for Education:
(25 minutes)
This module will:

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

PROJECT MANAGEMENT

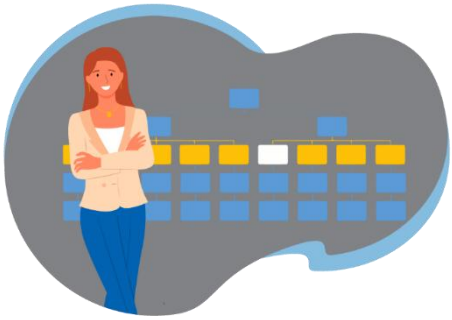
PM: Introduction to Project Management:
(100 minutes)
This module will:

- Define a project.
- Identify the roles and responsibilities of a Project Manager.
- Identify the processes involved in Project Management such as: initiating, planning, executing, controlling and closing.
- Identify the relationship between scope, time and cost and how these factors affect the success and quality of a project.

PM: Initiating:
(70 minutes)
This module will:

- Explain how to develop the Project Charter
- Identify the Project Stakeholders
- Define the purpose of the Focus Arrow and how it helps us assist with defining "Done Looks Like This"
- Describe how to create a Priority Matrix that helps us rank the customer's wants for the project
- Determine how to create and write a Project Scope Statement

PM: Work Breakdown Structure (WBS):
(75 minutes)
This module will:



- Explain the purpose of the WBS.
- Discuss how to develop the WBS.
- Describe how to use the WBS.
- Identify the various approaches to constructing the WBS.
- Define the terminology that is involved with the WBS.

PM: Scheduling Skills:
(50 minutes)
This module will:

- Discuss Sequential and Simultaneous scheduling concepts
- Explain Critical Path and Float Time for scheduling project activities
- Discuss Free Float/Slack Time
- Describe Gantt Scheduling
- Define Network Scheduling e.g., AON, and Pert Charts

PM: Scheduling Tools:
(100 minutes)
This module will:

- Explain that Activity is a component of work performed during a project
- Discuss the difference between the types of network diagrams, Activity on Arrow and Activity on Node
- Define Duration
- Define what Dependencies and Predecessor lines are
- Discuss how to compute Early Start (ES), Late Start (LS), Early Finish (EF) and Late Finish (LF) for each node in a schedule
- Explain how to calculate the Forward and Backward Pass
- Define what Critical Path and Float Times are

PM: Human Resources:
(50 minutes)
This module will:

- Explain how the RACI Chart will help us define and clarify the team member's role.
- Discuss how the attributes must be met by prospective team members.
- Define work, duration and elapsed time and how these elements are interrelated when working on a project.
- Show how to plug the team members into the project schedule.
- Define the four stages (Forming, Storming, Norming and Performing) a group of individuals will go through while developing into a team.
- Introduce the core elements for leading and managing a team

PM: Executing:
(50 minutes)
This module will:

- Introduce useful tools for the Executing Phase.
- Describe how different levels of team member skill or interest may affect the WBS.
- Explain the purpose and use of the Stakeholder Analysis form.
- Discuss how to build quality into every step of the project.

PM: Managing Project Changes:
(35 minutes)
This module will:

- Discuss how project changes are approved or rejected.
- Explain the 8 processes a Project Manager must know in order to manage changes to a project.
- Identify an easy method for preparing a project status report

PM: Controlling - Earned Value Management:
(50 minutes)
This module will:

- Explain how to develop a communication plan and establish the communication links
- Discuss the purpose and the building of an Earned Value Management chart
- Identify the purpose of the lines on an Earned Value Management Chart: Planned Value line, Earned Value line and the Actual Cost line
- Discuss the formulas that will help you find: Schedule Variance, Cost Variance, Schedule Performance Index and Cost Performance Index
- Explain how to build the Critical Ratio Chart and worksheet

PM: Closing:
(20 minutes)
This module will:

- How to gain agreement that the project is complete.
- The process for handing the project off to the customer.
- What support elements must be closed at the end of the project.
- About closing procurements and negotiated settlements.
- How to hand off a project to an implementation team.

LEAN ESSENTIALS FOR GOVERNMENT

Introduction to Lean for Government:
(45 minutes)
Learn the fundamental principles of Lean Government and understand how Lean Government thinking, tools and techniques can be deployed in your organization to drive excellence by eliminating waste and reducing costs, while delivering more value to customers.

Eight Wastes in Government Processes
(25 minutes)
Learn how to identify and analyze eight categories of wastes in government processes. Learn how removing process waste contributes to sustainability by delivering more value to customers in less time while consuming the fewest resources available.

5S for Government
(40 minutes)
Learn how to use 5S methodology to create and maintain an organized, clean and safe work environment in which government organizations can deliver and achieve high performance.

Mapping the Process for Government
(50 minutes)
Learn how the use of process mapping tools can help you make work visible with the objectives of eliminating waste, improving workflow and identifying opportunities to improve performance.

Standard Work for Government
(30 minutes)
Learn why Standard Work is necessary to provide a basis for continuous improvement, and how to develop Standard Work for government operations.

LEADERSHIP

Leadership - Introduction to Conflict Management:
(35 minutes)
This Leadership module is part one of a two-part series on conflict management. This module will:

- Explore the causes and types of conflict
- Show how to demonstrate the costs of conflict for individuals and organizations
- Examine different conflict styles
- Expose barriers to effective conflict resolution
- Explain how to teach cooperative approaches to handling conflict

Leadership - Conflict Management Tools:
(40 minutes)
This Leadership module is part two of a two-part series on conflict management. This module will:

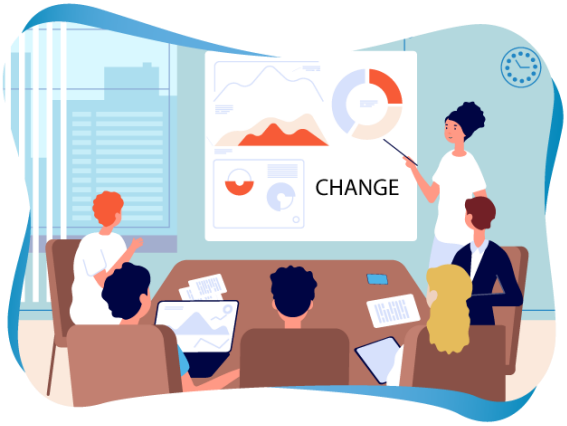
- Expose barriers to effective conflict resolution
- Teach cooperative approaches to handling conflict
- Explore strategies to minimize the costs of conflict

Leadership - Understanding Change:
(40 minutes)
This module will:

- Evaluate the driving forces of change
- Examine psychological and emotional responses to change
- Identify sources of resistance to change
- Identify attributes that help teams cope with change

Leadership - Managing Change:
(40 minutes)
This module will:

- Teach how to develop strategies and methods for facilitating change
- Explain how to practice applying change leadership strategies to support a successful change effort
- Identify ways to embed continuous improvement, change, and growth in the organization's culture



Leadership - Emotional Intelligence:
(45 minutes)
This module will:

- Explain how to use and manage your emotions
- Show methods for positively influencing others' emotions
- Explore ways to influence others through intrinsic motivators

Leadership - Active Listening:
(25 minutes)
This module will:

- Explain what Active Listening is and how you can develop this skill as you become an effective communicator.
- Consider that Active Listening takes practice and is a learned skill developed over time. It is not only hearing what a person says in communication; it is also being engaged in the conversation.
- Show that Active Listening requires you to hear, think, and absorb what is being said. It requires concentration and interpreting the meaning behind what you hear.

Leadership - Effective Communication:
(60 minutes)
This module will:

- Enhance awareness of the subject of communication
- Assess your style
- Identification of other's communication style
- Examine the multiple channels of communication
- Recognize and manage verbal and non-verbal behaviors
- Explore and practice behaviors
- Show how to use assertive rather than aggressive, passive, or passive-aggressive communication

Leadership - Diversity and Inclusion:
(60 minutes)
This module will:

- Explore the many layers of diversity
- Recognize the impact of conscious and unconscious bias
- Examine the roots and causes of our perceptions and reactions to others
- Study how bias and stereotypes may unintentionally influence our thoughts and decisions
- Identify possible areas of conflict among diverse groups and patterns of diversity conflict in the workplace
- Learn our role in fostering diversity and inclusion

Leadership - Managing Generations:
(45 minutes)
This module will:

- Explain how to identify generational differences
- Describe how the differences are displayed in the workplace
- Discuss communicating with and managing a multi-generational workforce
- Provide details on managing telecommuting workers
- Explore ways to manage potential conflict

Leadership – Meeting Facilitation Basics:
(45 minutes)
This module will:

- Identify the type of meeting necessary to achieve the desired goal
- Identify the components of a meeting and ensure proper preparation
- Explain how to structure a meeting agenda
- Show how to establish ground rules
- Describe how to follow the PDCA meeting framework for continual improvement

Leadership –Facilitation Skills:
(45 minutes)
This module will:

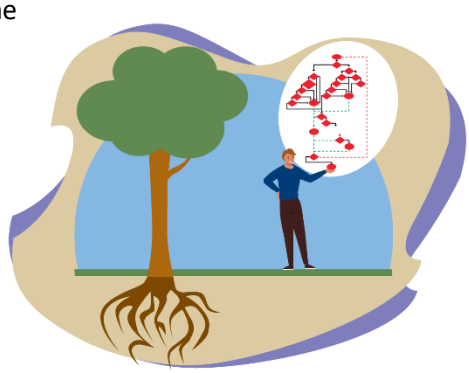
- Explain how to engage meeting participants
- Discuss how to ask effective questions
- Show how to make productive statements
- Provide techniques for making smooth transitions
- Explore how to identify causes of conflict
- Consider ways to resolve conflict
- Provide best practices for guiding the decision-making process
- Show methods for dealing with disruptive behavior

PROBLEM SOLVING ESSENTIALS

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.

Cause and Effect Diagrams:
(65 minutes)
Cause and effect mean 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.

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.

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.

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.

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.

Introduction to Problem Solving:
(60 minutes)
This module will:

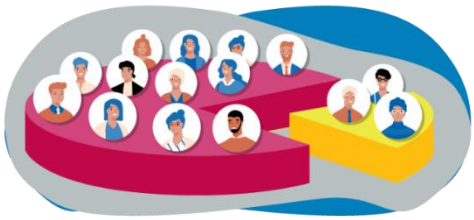
- Describe the importance of problem solving
- Explain a four-step problem-solving framework along with each step's supporting activities
- Discuss the differences between an individual and a team approach to problem solving
- Provide best practices for teams to consider
- Show tools and techniques used in problem solving
- Use an example scenario to tie things together

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.

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.



PDCA:
(30 minutes)
PDCA stands for “Plan-Do-Check-Act” and is a quality control tool. This module will:

- Provide a step-by-step guide to the PDCA cycle.
- Demonstrate the role of PDCA in Kaizen events and other process improvement initiatives.

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.

SHINGO PRINCIPLES FOR ENTERPRISE EXCELLENCE

These modules translate the Shingo Principles into practical, leader-ready behaviors that strengthen enterprise excellence. Each module helps executives and emerging leaders understand not just what great organizations do, but why they do it, and how to model those behaviors in their own teams. By connecting principles to daily leadership actions, these modules build the mindset, discipline, and cultural alignment required to drive sustainable, organization-wide improvement

The Shingo Model
(40 minutes)
The Shingo Model is the introduction to a framework designed to help organizations achieve sustainable success through cultural transformation rather than just short-term initiatives. The module topics are:

- Why Organizational Culture is the foundation of Sustainable Excellence
- Three Insights of Enterprise Excellence
- Components of the Shingo Model™
- Shingo Guiding Principles
- How Systems drive behaviors and results

Principle 1: Respect Every Individual
(25 minutes)
Respect Every Individual focuses on the "Cultural Enablers" dimension of the model, defining respect as an active behavior comprising four core practices: building trust, helping individuals grow, valuing every contribution, and ensuring safety and well-being. The module topics are:

- The definition of "Respect Every Individual" in the *Shingo Model™*
- Leader behaviors that demonstrate respect
- How respect is built into organizational systems

Principle 2: Lead with Humility
(30 minutes)
Lead with Humility defines humility not as a weakness, but as a strength of character that prioritizes learning over ego and recognizes that improvement requires the collective effort of everyone not just leadership. The module topics are:

- The meaning of "humility" within the Shingo Model™
- Daily practices that demonstrate humble leadership
- Real-world examples where humility drives improvement
- Humility in leadership scenarios and the evaluation of choices
- The connection between humility and the systems and tools that shape organizational culture

Principle 3: Seek Perfection
(30 minutes)
The Shingo principle of *Seeking Perfection* as an ongoing aspiration that fuels continuous improvement—not a demand for flawless performance. Learners explore how to define an ideal state, remove barriers step-by-step, prevent "good enough" complacency, and encourage experimentation as a daily leadership practice. The module also uses practical examples, and reflection prompts to show how leadership systems and improvement tools can be aligned to reinforce customer-focused perfection. The module topics are:

- Perfection as an aspiration, not a destination
- The Shingo perspective on perfection and common misconceptions

- Core practices: the ideal state, barrier removal, step-by-step progress, vigilance against complacency, and encouragement of experimentation
- Organizational stories of embracing or resisting the pursuit of perfection
- Leadership challenges in balancing aspiration with realism
- Systems and tools that reinforce a culture of continuous improvement
- Practical applications of this principle in leadership

Principles 4: Embrace Scientific Thinking
(30 minutes)
This module introduces *Embrace Scientific Thinking* as a core improvement mindset within the Shingo Model—shifting organizations from opinion-based decisions to disciplined, evidence-driven learning. Learners explore how to treat change as experimentation by forming hypotheses, testing ideas through PDCA-style cycles, using data over assumptions, learning from failure, and practicing humble inquiry. The module reinforces how leaders and organizational systems can embed this approach, so improvement becomes consistent, repeatable, and sustainable. The Module topics are:

- Why scientific thinking is essential for sustained improvement
- Core concepts: experimentation, evidence, learning from failure, and humble inquiry
- Hands-on labs: spotting assumptions, designing experiments, and learning from results
- Case studies across industries showing scientific thinking in action
- Systems and tools that reinforce this scientific thinking
- A leadership challenge to replace assumptions with testable hypotheses

Principles 5: Focus on Process
(30 minutes)
This module introduces the Shingo principle *Focus on Process*—the mindset that every result is produced by a process, and better outcomes require improving the system that created them. Learners examine the common "blame trap" and practice using a process lens to reframe problems from "Who made the mistake?" to "What in the process allowed this to happen?" Through real-world case studies and practical tools (e.g., process mapping, standard work, visual controls, error-proofing), the module reinforces how leaders can reduce variation, uncover root causes, and design processes that enable people to succeed consistently. The module topics are:

- Results as the natural outcome of processes
- Core concepts: results follow process, blame hides truth, process reveals opportunity, and people + process
- The process lens: re-framing problems without blame
- Case studies in manufacturing, healthcare, and services
- Tools and systems reinforcing process thinking

Principles 6: Assure Quality at the Source
(25 minutes)
This module introduces the discipline of building quality into every step of work so defects are prevented, detected immediately, and never passed forward. Learners explore why end-of-process inspection is insufficient and how practices such as "stop the line" thinking, error-proofing (poka-yoke), and first-time quality protect customers, reduce rework, and demonstrate respect for colleagues. The module also highlights how leadership systems (measures, rewards, training, and escalation) must be aligned to make doing quality work the natural, expected way of operating. The module topics are:

- The meaning and importance of quality at the source
- Core concepts: stop the line, error prevention, and first-time quality
- Case examples from manufacturing, healthcare, and services

- Systems and tools that reinforce quality at the source

Principle 7: Improve Flow & Pull Value

(30 minutes)

This module introduces the concepts of **Flow** and **Pull**, which are methods used to deliver value to customers efficiently. It teaches that value is created when work moves smoothly to the customer without interruption (Flow) and is only produced when there is actual demand (Pull). The module topics are:

- The meaning of flow and pull, and their importance to customers
- Core concepts: flow creates value, bottlenecks create waste, pull prevents overproduction, and customer-centered flow
- Visibility and measurement of flow in real processes
- Case examples from manufacturing, healthcare, and services
- Systems and tools reinforcing flow and pull

Principle 8: Think Systemically

(30 minutes)

This module explains how organizations function as interconnected systems and warns against "silo thinking," where improving one specific area can unintentionally harm the whole organization. It covers key concepts like sub-optimization and feedback loops, provides real-world case studies (in manufacturing, healthcare, and services), and offers tools to help leaders align their systems to customer value. The module topics are:

- Core concepts: interconnectedness, sub-optimization, feedback loops, and alignment
- The dangers of silo thinking
- Case studies from manufacturing, healthcare, and services
- Systems and tools for seeing and managing the whole

Principle 9: Create Constancy of Purpose

(30 minutes)

This module explains why leaders must maintain a steady, long-term direction rather than reacting to short-term pressures or chasing the "program of the year". It includes case studies from manufacturing, technology, and healthcare, and outlines tools—such as strategy deployment and visual dashboards—to help align daily work with the organization's mission. The module topics are:

- Core concepts: purpose as anchor, consistency vs. short-termism, resilience through purpose, trust through consistency.
- The cost of inconsistency
- Case examples across manufacturing, healthcare, and services
- Systems and tools that reinforce purpose over time

Principle 10: Create Value for the Customer

(30 minutes)

This module emphasizes that value is defined solely by the customer's perspective, meaning internal efficiency is only valuable if it serves the customer's needs. It distinguishes between value and waste, warns against the dangers of an internal focus, and illustrates these concepts with case studies from the airline, healthcare, and consumer goods industries. It also introduces tools like Customer Journey Mapping and Voice of the Customer to help leaders align their systems. The module topics are:

- Customer definition of value
- Core concepts: value vs. waste, diverse customer needs, and alignment to the customer
- perspective
- The customer’s eyes: perspectives and insights
- Case studies across manufacturing, healthcare, and services
- Systems and tools reinforcing customer value

COMPETENCY-BASED LEARNING

BASIC

Our Basic Series offers:



- Basic Problem-Solving Competencies that create immediate value
- Learning nodes, practice exercises and value-adding activities
- Mobile and/or desktop/laptop delivery
- Facilitated Interaction between students and mentors
- Progress tracking, badging, surveys and more

BASIC PROBLEM-SOLVING SKILLS SERIES

Lean Six Sigma Introduction:
Explain Lean Six Sigma.

The Five Principles of Lean:
Explain the purpose of the Five Principles of Lean, list the Five Principles of Lean and explain how each Lean Principle is applied.

Waste Elimination:
Classify activities into value-adding, non-value adding, but required, or non-value-adding and not required. Apply a Waste Walk Checklist to a real process identifying waste.

Going to Gemba:
Apply the Gemba principles: go see, ask why, and show respect.

5S:
Apply the first 3 steps for 5S in a work area.

Visual Workplace:
Apply Visual Management and Visual Controls in a work area.

Project Management:
Correctly write a Problem Statement and a Goal Statement.

PDCA:
Apply PDCA to a problem; Communicate PDCA results using a PDCA Storyboard.

Voice of the Process (VOP):
Collect data at the Gemba following the steps and key concepts about data collection.

Process Mapping:
Map a process using a flowchart.

SIPOC:
Build a SIPOC of a process.

Spaghetti Diagram:
Create a Spaghetti Diagram of a process.

Root Cause Analysis:
Apply 5 Whys to investigate a problem and identify the root cause.

Benchmarking:
Apply benchmarking to gather ideas to improve a product, service or process.

Design Thinking:
Apply Design Thinking to create and implement an innovative solution to a problem or a business opportunity.

Implementing Solutions:
Utilize a Benefit Versus Effort Matrix to prioritize solutions; Complete a 4W1H Action Plan.

Mistake-Proofing:
Create a Mistake-Proofing device.

Standard Work:
Create Standard Work for a work activity.

Follow up and Follow through:
Complete the three steps to develop and implement a Control Worksheet; Effectively close a process improvement project.

COMPETENCY-BASED LEARNING INTERMEDIATE

Our Intermediate Skill Servies offers:

- Intermediate CI Competencies that create immediate value
- Learning nodes, practice exercises, and value-adding activities
- Mobile and/or desktop/laptop delivery
- Facilitated interaction between students and mentors
- Progress tracking, badging, surveys and more

INTERMEDIATE PROBLEM-SOLVING SKILLS SERIES

Lean Office and Service:
Explain how Lean tools can be used to address office and service waste.

A3 Problem-Solving:
Follow and complete an A3 Problem-Solving report for a process improvement effort.

Voice of the Customer (VOC):
Explain the steps to obtain VOC and Construct an Affinity Diagram.

Swimlane Process Map:
Construct a Swimlane Process map of a real process to identify waste and suggest improvements.

Voice of the Process (VOP):
Show how to collect an adequate and representative sample.

Theory of Constraints (TOC):
Identify a constraint in a value stream and apply the first three steps of TOC: identify the constraint, Exploit the constraint, and Subordinate to the constraint.

Leading Teams:
Apply leadership skills to form teams and motivate people towards sustainable problem-solving.

Leading Change:
Successfully lead people through the process of change.

5S:
Apply and sustain all steps of 5S in a work area.

Time and Motion Study:
Conduct a Time and Motion study to suggest efficiency improvements based on data.

Lean Metrics:
Calculate key Lean metrics to assess the efficiency and the effectiveness of processes.

Graphical Analysis:
Plot the right graphics in Excel to present the voice of the process.

Pareto Analysis:
Construct a Pareto Chart to distinguish the vital few from the trivial many.

Flow and Pull Systems:
Enable flow and establish a pull system; identify opportunities for Kanban.

Workplace Design and Layout:
Use lean tools to analyze a real workplace design and suggest improvements using a future state Spaghetti Diagram.

Changeover Reduction:
Reduce process changeover time by applying the SMED methodology.

Total Productive Maintenance (TPM):
Calculate Overall Equipment Effectiveness (OEE) of a real piece of equipment to analyze its Availability, Performance, and Quality.

COMPETENCY-BASED LEARNING ADVANCED

Our Advanced Skill Series offers:

- Advanced CI Competencies that create immediate value
- Learning nodes, practice exercises, and value-adding activities
- Mobile and/or desktop/laptop delivery
- Facilitated interaction between students and mentors
- Progress tracking, badging, surveys and more

ADVANCED PROBLEM-SOLVING SKILLS SERIES

Lean Six Sigma
Demonstrate how to conduct a Lean Six Sigma project by following the DMAIC roadmap

Kaizen Event
Successfully lead a Kaizen event to implement rapid improvements

Theory of Constraints – (Part 1)
Apply the five focusing steps of the Theory of Constraints (TOC) to identify and solve a process constraint and bottlenecks

8D
Apply the Eight Disciplines (8D) to identify, contain and correct a problem, and to prevent it from happening again

Voice of the Customer
Translate the Voice of the Customer (VOC) into Drivers, Critical Characteristics, Key Process Output Variables (KPOVs), and metrics by constructing a CTX Tree

Project Management
Create a complete Project Charter with a Problem Statement, a SMART goal, and all its other key elements all aligned with the business strategy

Estimating Project Benefits
Work with a finance Subject Matter Expert (SME) within the business to accurately estimate the project Return on Investment (ROI) including both soft and hard savings

Leading Teams
Lead a Lean Six Sigma project team by using the GRPI Model, RACI Chart, team facilitation tools and key soft skills

Current State Value Stream Mapping (Module)
Construct a Current State Value Stream Map and identify opportunities to enable flow, establish pull, and improve the process

Voice of the Process
Create a Measurement Plan, collect process data, and calculate descriptive statistics such as the mean, median, mode, range, standard deviation and variance

Histogram
Construct and interpret a histogram to visually assess the center, spread, shape of the data (skewness, kurtosis), and potential outliers

Box Plots
Construct one or more Box Plots to analyze and compare the center, spread, symmetry of the data and to confirm the presence of suspected outliers

Continuous Probability Distributions
Assess risk and calculate probabilities associated with continuous variables and data sets; conduct and interpret the Anderson Darling test for normality

Run Chart
Construct a Run Chart and evaluate the process for patterns in the data over time such as clustering, mixtures, trends, and oscillation

Control Charts (Modules)
Choose, construct, and interpret Control Charts and conclude whether the process is under statistical control; investigate alarms and execute actions to bring the process to a state of statistical control

Measurement System Analysis (Modules)
Select, apply, and interpret the appropriate Measurement System Analysis (MSA) tool to conclude whether the measurement system is acceptable, marginal, or unacceptable

Discrete Probability Distributions (Module)
Assess risk and process capability related to discrete random variables by using the Binomial and Poisson distributions

Process Capability Assessments (Module)
Assess process capability by calculating capability indices including sigma level, Ppk, Cpk, PPM, DMPO, and DPU.

Fishbone Diagram
Construct a Fishbone Diagram and prioritize potential root causes for validation using statistical tools

Theory of Constraints – (Part 2)
Construct a Current Reality Tree (CRT) to evaluate cause-and-effect relationships and identify potential root causes; From the CRT, create a Future Reality Tree (FRT) to identify process improvements

Hypothesis Testing (Module)
Select, apply, and interpret the appropriate hypothesis test to validate and quantify the impact of Key Process Input Variables (KPIVs) on Key Process Output Variables (KPOVs); statistically validate process improvements

Scatter Plot
Construct a Scatter Plot to visually assess the correlation between a pair of continuous variables (a Key Process Output Variable vs a Key Process Input Variable)

Leading Change
Assess, Manage, and lead change necessary to improve the process; take effective actions to prevent and mitigate resistance to change

Failure Modes & Effects Analysis (FMEA) (Module)
Construct and interpret an FMEA to anticipate, quantify, and prevent failure modes from occurring, minimizing process-related risk

Future State Value Stream Mapping (Module)
Construct, plan, and implement a Future State Value Stream Map to enable flow, establish pull, and continuously improve the process

Controlling the Process (Module)
Create and implement a Control Plan to sustain Continuous Process Improvement (CPI) project improvements to ensure that the improvements are sustained

Leader Standard Work
Create and follow Leader Standard Work to role-model leadership behaviors, routines, check-ins to drive consistency, visibility, and accountability in the development of a Lean culture and management system

Mentoring Competencies
Mentor Continuous Process Improvement (CPI) candidates and projects to optimize candidate success and project impact to the business

SIMULATIONS
(BASIC-INTERMEDIATE-ADVANCED)

OpusWorks' Simulations are high-impact practice environments where learners apply new skills in realistic, scenario-based challenges. Most simulations are intentionally integrated into our courses, giving participants the opportunity to practice immediately after learning key concepts. Two simulations are also available as standalone experiences for teams seeking focused, hands-on application.

Our Experiential Learning Elements Are:

- Engaging and relatable
- Interactive and practical
- Challenging and realistic
- Simple to comprehensive
- A 'safe space' for practice
- Representative of a wide variety of industries and settings

Standalone Simulations

These simulations can be delivered independently or as part of a broader learning journey:

USAF C-130 Propeller Shop (Military)
Use the 8-Step PPSM Method to increase the capacity of the propeller refurbishment process.

Department of Motor Vehicles (DMV)
Use DMAIC to reduce wait time at the DMV.

Integrated Course Simulations

The following simulations are embedded within their respective OpusWorks courses to reinforce learning and ensure immediate application.

Basic

Artisan Cocoa Company (Chocolate Manufacturer)
Complete a PDCA project to increase product quality.

EcoPlay (Toy Manufacturer)
Use Design Thinking to develop a product.

IronTrails (Logistics)*
Complete a PDCA project to reduce lead time of the payroll process.

Intermediate

XYZ Electronics (Electronics Manufacturer)
Use A3 Problem-Solving to meet customer demand for scanners.

Shampoochies (Pet Salon)
Use the Five Focusing Steps of Theory of Constraints (TOC) to meet customer demand.

Memorial Hospital (Healthcare System)
Use A3 Problem-Solving to reduce repeat EKGs in the emergency department.

Guardian Snappy (US Space Force)
Use the 8-Step Practical Problem-Solving Method to reduce the incidence of overdue and rejected taskers.

WayFair Inns (Hospitality Services)
Use Current State Value Stream Mapping (CSVSM) to reduce waste in a hotel laundry process.

Falcon Drones (Drone Manufacturer)
Use the Theory of Constraints (TOC) logical thinking process to reduce warranty claims.

Moose and Moon (Brewery)
Use strategic planning tools to design a Continuous Process Improvement (CPI) Deployment

Finova Bank (Financial Services)
Use Lean 3P to innovate a banking process.

Advanced

Casita Tiny Homes (Tiny House Manufacturer)*
Use DMAIC to solve multiple problems at a Tiny Home Manufacturer.

DOT Agriculture Certification Office (State Government)
Use DMAIC to reduce wait time at an Agriculture Certification Transportation Center

Northeast Airlines (Passenger Airline Company)
Use DMAIC to reduce aircraft turnaround time for passenger airlines.

**Under development*

SMALL SCALE CASE STUDIES

Small scale case studies bring examples and exercises to life, including (but not limited to) the following:

- Great Lakes Saltworks (Mining)
  - Write a Problem and Goal Statement

- Andy's Auto Shop (Automotive Service Center)
  - Process Capability Analysis

- Bright Mind Toys (Toy Manufacturer)
  - Create a Balance Scorecard

- Great Western Telecommunication (Call Center)
  - Use Data Analysis, Strategic Planning and TRIZ to solve multiple problems in a call center

- Catalyst (Chemical Manufacturer)
  - Use Design of Experiments (DOE) to optimize a chemical process

- NovaCura Labs (Pharmaceutical)
  - Use Advanced Statistical Methods and TRIZ Ideal Final Result (IFR) to improve multiple processes.

- PEZLA Electric Vehicle Company (Electric Vehicle Manufacturer)
  - Use Strategic planning, financial metrics and Monte Carlo Simulation to support a CPI Deployment

- Quick Cart Online Grocery (Retail)
  - Use advanced leadership tools to revitalize a CPI Deployment

- Summit Fire Systems (Fire Truck Manufacturer)
  - Use Design for Six Sigma (DFSS) for product engineering and development

- Barbs Bakery (Food Services)
  - Use advanced lean tools to calculate safety stock

- Bonafido Pet Products (Manufacturing Company)
  - Use 3P to innovate a doggie backpack

- Lawn Ranger Landscaping (Small Business Lawn Service)
  - Use Enterprise Value Stream Analysis (EVSA) to create a CPI Deployment plan

- Memorial Hospital (Mental Health Services)
  - Use Machine Learning to identify the critical input variables to a healthcare process.

CPI PORTAL

Designed for Individuals, Small Teams, and Global Organizations

Foundational Learning Library and Pre-Built Course Tracks

New Courses are regularly updated and expanded

Live Q&A, further discussion via OpusWorks' YouTube Live stream sessions

Click the link to learn more or Register: OpusWorks CPI Portal

Solo Learners

- ✓ IACET-accredited certificates
- ✓ Instant access to all classes
- ✓ One subscription price for everything
- ✓ Learn at your own pace
- ✓ No company or manager required
- ✓ Simple, direct, powerful

No team needed to grow.
You have the will…
Now you have the way.

Solo? You're Still a Powerhouse.

Gain unlimited access to our Foundational Skills library of e-Learning Modules and popular classes for as long as you subscribe. You'll find the full course list conveniently located on the top menu.

This is the exact training trusted by world-class organizations like the United States Air Force, Bank of America, and Cargill—so you know you're learning what the best already use.

Whether you're looking to advance, transition, or excel in your career, OpusWorks gives you the tools to prepare and supercharge your future.

Small Teams

- ✓ IACET-accredited curriculum
- ✓ Full-featured platform, simplified for smaller teams
- ✓ No IT setup or technical support needed
- ✓ Autonomous, self-paced learning
- ✓ Scalable as your team grows
- ✓ Convertible to Enterprise CPI

Small Team CPI is not just training…
It's transformation, made easy.

Small Team. Big Impact.

Small team agents have full control to track progress, add users, and manage deployments with ease. Learners get immediate access to our complete, IACET-accredited course library earning industry-recognized credentials at their own pace. No scheduling, no instructors required—just log in and start learning when it's most convenient.

ASK OPUS

Your AI Guide for CPI Training and Execution

With "Ask Opus AI", the future of CPI is here—faster results, higher quality, and greater customer satisfaction. "Ask Opus", AI infused into OpusWorks learning platform, and available on all student portals to empower teams with tailored learning that closes knowledge gaps and boosts performance.

Our Intelligent Assistant can transform your CPI:

- Personalized Answers to tough questions
- Relevant Examples that are job specific
- Trusted Mentoring every step of the way
- Non-Judgmental Help when needed

Choose OpusWorks for AI-Infused CPI

STATWORKS!

OpusWorks' StatWorks! is a statistical software offering a user-friendly and intuitive interface. StatWorks! enables users to input raw data, guides them towards the appropriate tool, performs various statistical tests, generate graphs and charts, and interpret results using AI. The OpusWorks' statistical software includes tools such as Pareto, Histogram, Boxplot, Control Charts, Process Capability Analysis, Hypothesis Testing, Correlation Analysis, Regression, ANOVA, Measurement System Analysis, and Design of Experiments. It is a valuable asset for professionals in various roles and industries looking to drive continuous improvement and achieve operational excellence.

Statistical software is a powerful tool used in Process Excellence to analyze data, identify trends and other patterns, relationships among process variables, and make informed decisions based on statistical analyses.

PROJECT TRACKER

The OW Project Tracker is a structured, enterprise-ready platform designed to streamline project execution and ensure measurable results. Built with continuous improvement methodologies at its core, it provides organizations with a single source of truth for planning, tracking, and reporting initiatives across all levels of business.

Key Features and Benefits:

- **Comprehensive Project Frameworks** – Supports DMAIC, PDCA, A3, and RCCA methodologies, enabling teams to select the right approach for each initiative.
- **Strategic Alignment** – Links projects directly to organizational goals, ensuring that every effort contributes to measurable business outcomes.
- **Real-Time Dashboards** – Offers intuitive visualizations of progress, ROI, and key milestones, giving leaders immediate insight into performance.
- **Mentor and Stakeholder Engagement** – Facilitates structured reviews, feedback loops, and accountability checkpoints to keep projects on track.
- **Automated Reporting** – Reduces administrative burden by generating consistent, professional reports for leadership and stakeholders.
- **Scalable Design** – Equally effective for small teams or enterprise-wide deployments, with customizable templates and workflows.
- **Culture of Continuous Improvement** – Encourages knowledge sharing, celebrates completed projects, and reinforces best practices across the organization.

By combining **clarity, accountability, and actionable insights**, the OW Project Tracker empowers organizations to accelerate improvement initiatives, eliminate inefficiencies, and maximize return on investment. It is more than a tracking tool—it is a catalyst for building a sustainable culture of operational excellence.

OPUSWORKS ASSESSMENT ENGINE

While training and projects create the foundation for excellence, sustainable transformation requires a clear understanding of the underlying culture and behaviors that drive organizational performance. Traditional assessments often fall short: they measure activity but fail to provide timely insights or actionable feedback. The OpusWorks Assessment Engine changes this dynamic by embedding measurement, feedback, and action directly into the Deployment Platform.

The **OpusWorks Assessment Engine** is built for flexibility and scalability, giving organizations the power to measure and influence culture at every level. More than just a new feature, it's a catalyst for deeper insight and stronger change leadership. By embedding assessments directly into the Deployment Platform, OpusWorks enables organizations to not only understand where they stand today, but also take informed action that builds resilience, sustains improvement, and accelerates value creation. These are our predesigned assessments currently available:

- **The 10 Shingo Leadership Principles Self-Assessments**
    - **Respect for Every Individual:** In this self-assessment you will gain insight into your level of respect for every individual.
    - **Lead with Humility:** In this self-assessment you will gain insight into the level of humility with which you lead.
    - **Seek Perfection:** This Assessment helps you reflect on how consistently you pursue improvement beyond "good enough." It reveals how well you envision ideal states, encourage experimentation, stay committed under pressure, and integrate continuous improvement into daily work, all key behaviors of the Shingo Principle of Seeking Perfection.
    - **Embrace Scientific Thinking:** This Assessment helps individuals and teams identify how well they rely on evidence, experimentation, and learning from failure; revealing strengths and gaps that directly impact their ability to drive sustainable improvement.
    - **Focus on Process:** This Assessment helps individuals and teams evaluate how consistently they see work as a process, identify root causes rather than blaming people, and apply disciplined methods to improve flow and outcomes—providing insight into habits that strengthen accountability, reduce variation, and drive lasting performance.
    - **Assure Quality at the Source:** This Assessment helps individuals and teams understand how consistently they build quality into their work from the very beginning, rather than relying on inspection or rework later. It measures critical behaviors such as taking ownership for first-time quality, stopping processes to correct defects, designing error-proof systems, fostering a culture of respect that celebrates problem-finding, and protecting quality even under pressure. The results highlight strengths and blind spots, offering targeted feedback that encourages treating every defect as an opportunity to learn, respect colleagues, and safeguard customers.
    - **Flow and Pull Value:** This Assessment helps individuals and teams understand how effectively they create smooth, demand-driven processes that deliver value without interruption,

revealing how well they reduce bottlenecks, minimize batch sizes, align work to real customer needs, and replace push-based efficiency with true flow

- **Think Systemically:** This Assessment helps individuals and teams evaluate how well they anticipate downstream effects, balance short- and long-term priorities, align with organizational purpose, and avoid local optimization, revealing strengths and gaps in creating solutions that benefit the entire system.
- **Create Constancy of Purpose:** This Assessment helps individuals and teams evaluate how well they stay anchored to long-term mission and values; resisting short-term pressures, protecting critical investments, and providing consistent direction that builds trust and resilience.
- **Create Value for the Customer:** This Assessment helps individuals and teams evaluate how consistently they define value through the customer's eyes—revealing how well they test assumptions, gather feedback, balance efficiency with experience, and align goals and systems to deliver what customers truly care about.

- **Advanced Candidate Readiness Assessment:** The Advanced Candidate Readiness Assessment gauges your preparedness for Lean Six Sigma Green Belt training by highlighting your strengths and development needs in experience, motivation, problem-solving, teamwork, resilience, and support for learning.
- **Organizational Maturity Assessment**: The Maturity Model Assessment helps teams evaluate how effectively their systems and behaviors align with the Shingo Principles. It highlights current strengths, reveals gaps across key dimensions, and provides tailored feedback to guide organizations from reactive improvement toward a fully mature, principle-driven culture.
- **5S Audit**: This 5S Audit Form will help evaluate how consistently each department or plant applies the 5S principles (Sort, Set in Order, Shine, Standardize, Sustain).
- **3S Audit**: This 3S Audit Form will help evaluate how consistently you apply the first 3 of the 5S principles (Sort, Set in Order, and Shine).
- **Custom**: OpusWorks offers custom assessment design that aligns with your organization's priorities and context. From behavioral insights to maturity evaluations, we create tools that reveal where you are today and what it will take to grow stronger tomorrow.