Lean Six Sigma Tools for Internal Audit Planning

The fundamental objective of the Six Sigma methodology is the implementation of a measurement-based strategy that focuses on process improvement and variation reduction. Six Sigma seeks to improve the quality of process outputs by identifying and removing the causes of defects (e.g., errors) and minimizing variability in business processes by using a set of quality management and statistical tools.

The purpose of this course is to expose participants to some of the basic Six Sigma tools that can be used during the planning phase of an internal audit to enhance audit effectiveness, provide deeper insights into business operations, and identify process streamlining opportunities. These tools can be used independently or in conjunction with existing audit methodologies, tools, and techniques. Participants will have the opportunity to practice and apply the skills learned during the course through case study and exercises, which should enable them to integrate the tools and techniques into their audit engagement activities.

This course is appropriate for auditors at all levels.
Course Duration:

2 Days

CPE Hours Available:

16

Knowledge Level:

Intermediate

Field of Study:

Auditing

Prerequisites:

It is suggested that participants come with a basic knowledge of business process auditing; however, it is not required.

Advance Preparation:

None

Delivery Format:

Seminar, eLearning, On-site
Course Outline:

**Lean Six Sigma Overview**

- Correlate the Six Sigma methodology to the phases of an internal audit.
- Describe the relationship of the Lean Six Sigma process improvement methodology to the IIA’s *International Standards for the Professional Practice of Internal Auditing*.
- Describe the relationship between the Lean Six Sigma process improvement model (DMAIC) and the five phases of an internal audit.
- Explain the necessity of each business unit’s objectives being aligned with the organization’s overall objectives.
- Identify the difference between output measures and performance measures in a business process.
- Identify the benefits and challenges of employing the Lean Six Sigma methodology during an internal audit engagement.

**Project Charter**

- Prepare a project charter that states the scope, outlines the objectives, and delineates the roles and responsibilities for a project.
- Explain the purpose and importance of the project charter.
- Describe the three main uses of the project charter.
- Describe what every project charter should include.
- Create a project charter given a set of facts and circumstances surrounding a business process improvement project.

**RACI Diagram**

- Complete a RACI diagram that is useful for clarifying decision-making assignments in cross-functional/departmental projects and processes.
- Explain the purpose and importance of a RACI diagram.
- Describe the key roles in a RACI diagram.
- Construct a RACI diagram.
SIPOC Diagram

- Produce a SIPOC diagram that captures key suppliers, inputs, process steps, outputs, and customers of a selected process.
- Explain the purpose and importance of process mapping.
- Explain the purpose and importance of a SIPOC diagram.
- Construct a SIPOC diagram for capturing a business process and describing its key relationships.
- Describe the keys to a successful SIPOC diagram.

Value Stream Mapping

- Map the value stream of a given process to analyze the flow of materials and information required to bring a product or service to a customer.
- Explain the importance of quantification in a value stream map.
- Describe how customer value is tracked within a value stream map.
- Describe the business process component categories captured in a value stream map.
- Construct a value stream map for capturing a business process.
- Construct a Value Stream Map for capturing a business process.

“As Is” Spaghetti Diagram

- Construct an “as-is” spaghetti diagram, adapted from a process flowchart, that highlights the number of key steps and spatial relationships of a particular process.
- Explain the purpose of an “as-is” spaghetti diagram.
- Demonstrate how an “as-is” spaghetti diagram is adapted from a process flowchart.
- Capture the key steps and spatial relationships in a business process.

Waste Walk

- Perform a waste walk and recognize common wastes in a business process.
- Explain the purpose and importance of performing a waste walk.
- Describe how to perform a waste walk effectively.
- Describe common wastes that exist in a business process.
- Describe the traditional “seven wastes” as a historical reference.
5S

- Utilize the 5S workplace organization methodology to assess workspace efficiency and effectiveness.
- Describe the five primary phases of 5S.
- Describe the benefits of 5S.

Wrap-up and Next Steps

- Apply newly learned concepts, techniques, and skills in the workplace.
- Restate major concepts, techniques, and skills learned during the course.
- Develop an action plan to apply selected concepts, techniques, and skills.