



*Process Management and
Continuous Improvement*
Online format

Faculty Information

Professor: Lee R. Campe, Lean Six Sigma Master Black Belt

Course Description & Learning Objectives

Process management has perhaps been practiced from the dawn of time by individuals interested in efficiency. Today, it has evolved into an art and a science, and is widely used in Japanese manufacturing techniques, the Six Sigma movement, and other avenues for maximizing value and minimizing waste.

This course provides participants with a blend of the theoretical knowledge and practical skills necessary to embrace the concepts behind process management. Course content includes the topics of balanced scorecard and the principle $Y = f(x)$, and an overview of “lean” and “Six Sigma” to drive improvement on those processes.

By the end of the course, participants should be able to define the terms “lean” and “Six Sigma” and should have gained an understanding and appreciation of the differences and similarities between the two. Participants will understand the various elements of waste and the difference between “value-added,” “non-value-added,” and “required non-value-added” activities. Students will understand and be able to explain the six sigma problem solving methodology of DMAIC. Students will also be able to define the 4 quadrants of balanced scorecard and its application to process management.

The instructor will encourage participant participation through discussion forums, wherein the participants will be expected to apply the concepts presented in various weeks to their individual work environments, draw parallels between their work and the online presentations and discuss the application of course materials to issues and challenges in their workplaces. Using the course’s Web-based message board, participants will be encouraged to submit questions to the instructor, who will respond in a comprehensive and timely manner.

Course Materials

Supplied and available to all participants via Internet online sources

Discussion Forums and Assessments

Discussion Forums. Participants are encouraged to assemble in informal virtual teams to share the application of the course learnings to current issues and challenges in their workplaces and as a requirement, must a minimum of 4 perspectives on the Discussion Forum during the course.

Weekly Assessments. Weekly practice assessments are provided at the completion of each week's on-line class (e.g., lectures, slides, and other materials). The practice assessments consist of 19 multiple choice questions and one essay (minimum 500 word). The purpose of the assessments is to determine whether the participant has sufficient command of the materials and has met the learning objectives. Participants are able to attempt the weekly assessments as often as they choose during the course.

Week 4 is designed to provide a review of all the materials from the previous three weeks. The audio-video review presentation will connect the theory, instruction, and the learning objectives to the questions posed by participants.

Final Assessment. The final assessment consists of 25 multiple-choice questions. Participants will have 45 minutes to complete the final assessment. The participant will have 3 chances to receive a passing score on the final assessment. In order to receive the program completion certificate, one must pass the final assessment.

Course Outline

Session 1

- Outline of Sessions

Session 2: Process management

After completing this session, participants will be able to:

- Define your level 1 and level 2 process for your area or department
- Define your Y
- Define your X
- Explain Process Management to others using a personal example

Session 3: Tools available to measure process performance

After completing this session, participants will be able to:

- Define what a KPI is and create one for his/her department
- Explain the 4 components of balance scorecard
- Understand the need to prove hypothesis in business

Session 4: The 4 methods of continuous improvement

After completing this session, participants will be able to:

- Define the 4 methods of continuous improvement, give an example of each
- Understand how each method is used
- Define Lean Six Sigma
- Understand why the market moved to “lean six sigma”

Session 5: What is lean?

After completing this session, participants will be able to:

- Define Lean
- Define the 4 principles in Lean
- Define the 8 types of waste in lean

Session 6: What is DMAIC?

After completing this session, participants will be able to:

- Define the methodology DMAIC
- Give an example of what happens in each phase
- Explain how the Y and or X are impacted in each phase
- Explain the major outcome of each phase

Session 7: What is DMAIC?

This session will:

- Provide students with some real world examples of DMAIC projects related to business environment.
- Refresh some of the topics covered in prior modules.

Session 8: What is Design for Six Sigma?

After completing this session, participants will be able to:

- Understand what Design for six sigma is
- Explain the DMADV methodology
- Explain the deliverable of each phase of DMADV
- Give an example from their personal life or work place

Session 9: Bringing it all together

After completing this session, participants will be able to:

- Complete a SIPOC
- Complete a Value Stream Map
- Complete a PUGH Matrix
- Complete a tree diagram

Session 10:

Review and Assessment