Lean Six Sigma is the combination of both Lean and Six Sigma disciplines into one management philosophy aimed at promoting “business and operational excellence.” Lean Six Sigma is a powerful, proven method for making business processes more efficient (utilization of resources), and effective (a measure of quality – 3.4 DPMO).

Course Learning Outcomes:
By the end of this course, a student should be able to:
- Explain the scope and breadth of a Lean Six Sigma initiative
- Define and identify waste and develop a plan for waste reduction
- Identify variation and techniques to reduce waste
- Discuss the DMAIC team project model
- Summarize the infrastructure needed to support a Lean Six Sigma effort

The Lean Six sigma methodology views lean manufacturing—which addresses process flow and waste issues, and Six Sigma—with its focus on variation and design – as complementary disciplines.

Course Outline:
I. What is Lean Six Sigma
   A. Learn what Lean Six Sigma is.
   B. The basics of Lean Six Sigma.
   C. Combining Lean and Six Sigma for a comprehensive improvement strategy.
II. Improvement Methodologies
   A. Value stream mapping.
   B. Eliminating waste.
   C. Incorporating the 5S's.
   D. Starting the DMAIC Project Cycle.
III. Supporting Infrastructure
   A. Understanding the roles in Lean Six Sigma: the Leadership Team, Champions, Black Belts, Green Belts, Project Teams
IV. Application of Lean Six Sigma
   A. Lean Six Sigma in manufacturing, the office, order entry, warehousing and distribution, sales and R&D

Challenge (Course Test): Introduction to Lean Six Sigma Test