

Lean Manufacturing is a systematic approach to identifying and eliminating waste (non-value-added activities) through continuous improvement by flowing the product at the pull of the customer in pursuit of perfection. Lean techniques were created by Henry Ford and perfected by Toyota. Its philosophy is catching on with today's high performance firms.

Principles of Lean Manufacturing – Production focus

Lean Manufacturing provides a systematic approach to reducing costs and lead time by continuously eliminating non-value added activities. It promotes continuous improvement, committed management and empowers employees. By implementing Lean techniques at every level, managers are able to create Lean Enterprises that are increasing the gap between winners and losers. Topics include:

- History of Manufacturing
- Basic Definitions
 - Lean
 - Value-added activities
 - Non-value added activities
 - Waste: overproduction, waiting, transportation, non-value added processing, excess inventory, defects, excess motion, underutilized people
- Continuous Improvement

The class provides students with the principles of Lean Manufacturing through a combination of classroom lecture, real life examples and a simulated manufacturing system. Students participate in four simulation rounds by building modular airplanes from "Lego" blocks based on a traditional manufacturing company.