

Lean Enterprise Systems Design Institute

- **Location:** Knoxville, Tennessee
- **Duration:** One Week
- **2011 Dates:** October 16-21
- **2012 Dates:** January 22-27, April 8-13, and Oct 14-19
- **Tuition:** \$4,500 (includes meals and lodging)

Participant Profile

The *Lean Enterprise Systems Design Institute* integrates the functions involved in the Lean Supply Chain from a strategic and tactical perspective.

The concepts presented in the program will be of particular interest to managers and technical employees involved in the design and continuous improvement of the product delivery process:

- Production and Materials Managers
- Manufacturing and Design Engineers
- Supply Chain and Purchasing Managers
- Marketing and Customer Service Managers
- Cost Accountants

Course Overview

What is the Lean Enterprise?

Lean Thinking evolved in the early 1990s. At that time, the focus was on principles and concepts to improve production effectiveness even while coping with an increasing variety of goods and services. While a focus on improving production of goods and services is still appropriate, businesses now realize that significant gains can be achieved by applying these concepts across the enterprise to help build and manage the lean supply chain.

To achieve results, companies must translate lean principles into a total business strategy that focuses on customers, processes and people leading to a Lean Enterprise.

The Lean Enterprise is not just another “program of the month,” nor is it one restricted to production. It is a management philosophy necessary to remain

competitive in the future, a philosophy that pervaded multiple functions in the organization.

It is crucial that managers from every business function, including Finance, Human Relations, Accounting and Marketing understand the importance of the effort.

From the organization’s perspective, the Lean Enterprise helps achieve and integrate new productive capabilities out of the necessary business processes, the expertise of people, and physical facilities, regardless of their physical location within the organization. It is characterized by a shift from the command and control philosophy of the traditional organization to one of leadership, motivation, support and trust.

From the marketing perspective, the Lean Enterprise facilitates custom-tailored combinations of goods, information and services, at a price level that is based on customer-perceived value. Since customers today are more sophisticated and demanding than ever, the ability to discover, confirm and exceed their expectations must not be left to chance. Thus, success always begins with some means of capturing value from your customers. This cannot be an internal activity; it must involve real conversations with real customers, a conversation that should at least include the supply chain, design and operations functions.

From a supply chain perspective, the Lean Enterprise helps integrate supplier processes, production processes, business processes, customer relations, and the product's use and eventual disposal.

From the operations perspective, the Lean Enterprise provides the ability to produce a wide and rapidly changing portfolio of products, often in small quantities. Finally, at the individual level, the Lean Enterprise represents the emergence of a knowledgeable, skilled, entrepreneurial and empowered total work force.

Lean Enterprise Systems Design Institute

The Institute's Role.

The purpose of the *Lean Enterprise Systems Design Institute* is to teach managers how to implement the principles of the lean management philosophy. These principles are applied first to the factory floor and then to all parts of the product delivery process. Finally, the same principles are applied throughout the value stream, including suppliers and distributors. The Institute is extremely applications oriented. Practical exercises and simulations (both manual and computer) support the theory presented as part of the overall educational process. Several real-world examples are presented to support key ideas throughout the program. Attendees can expect to participate in group working sessions and to present team results.

Course Focus

A unique feature of the Institute is the integration of Lean principles with concepts drawn from the Theory of Constraints. These two techniques combine to provide organizations with a tremendous competitive edge with resulting significant improvement in their financial performance.

One major training objective of the Institute is to teach participants how to achieve dramatic improvements simultaneously along multiple dimensions of performance through the proper design of a lean product delivery system. These improvements include significant reduction in flow times, increased levels of quality, improved due date performance, and reduced variability throughout the value stream.

A second major objective involves learning to extend the application of lean principles in both directions of the value stream. This extension is where the largest opportunities exist: forward to more effectively manage customer orders, and backward through the material supply channels.

The Theory of Constraints provides managers with a systems perspective. Thus, while the focus of the Institute is on improving multiple dimensions of performance, participants will also learn how to apply systems thinking to leverage these improvements and significantly affect financial measures such as increased profits and higher return

on assets. Consequently, topics such as throughput accounting are also covered in the program.

Methods of Instruction

The *Lean Enterprise Systems Design Institute* is an applications-oriented program. In the first half of the week, instructors introduce concepts and principles and follow them up with hands-on exercises and simulations that demonstrate how the concepts can be successfully applied. An initial production simulation allows participants to experience and identify the characteristics of a typical mass production environment with its inherent short-comings.

Following presentations and discussions of lean concepts and principles, participants work in teams to redesign the production environment. The effectiveness of the new design is demonstrated through another simulation.

The second half of the week is devoted to concepts and principles which can be successfully applied at the enterprise level. These concepts include the Theory of Constraints and participants learn how to apply them through a second hands-on experiential simulation, the Lean Enterprise Game, which shows them the dramatic differences between the traditional cost world perspective and the throughput world perspective espoused by the Theory of Constraints.

Faculty

Course instructors primarily include faculty of the University of Tennessee's College of Business Administration, as well as key leaders from industry. Instructors include:

- **Dr. Ken Gilbert**, Professor and Department Head, Department of Statistics, Operations and Management Science. Ken teaches and consults in such areas as production management, information systems management, and management science. He has taught in North America, Europe and Asia.
- **Dr. Ken Kirby**, Faculty Emeritus, Ken has considerable experience in redesigning manufacturing systems and business processes. His international experience includes England, Ireland, France, Spain, Brazil and Singapore.
- **Keith Leitner**, M.S., faculty member, Center

Lean Enterprise Systems Design Institute

for Executive Education. Keith has extensive experience implementing lean concepts in both private and defense industries.

- **Allen Pannell, M.S.**, executive consultant, specializing in process innovation and redesign,

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leadership, six sigma strategic planning and process management.

- **Bill Peterson, M.B.A.**, faculty member, Center for Executive Education. Bill has over 30 years experience in aircraft Maintenance, Repair and Overhaul business using lean concepts.
- **Dr. Mandyam Srinivasan**, The Pilot Corporation Chair of Excellence. Srimi has many years of experience with leading automobile manufacturers. He has published in a wide range of academic and professional journals and is the author of the books, *Streamlined: 14 Principles for Building and Managing the Lean Supply Chain*, and *Supply Chain Management for Competitive Advantage: Concepts and Cases*.

Facilities

Classes are held in the executive classrooms of The University of Tennessee Center for Executive Education. These facilities are specifically designed for group-interaction programs. Accommodations are single-occupancy rooms at a nearby hotel.

Related Courses of Interest

- Lean Maintenance, Repair and Overhaul
- Establishing Reliability Excellence for
- Lean Implementation
- Lean for Healthcare
- Lean for Business Processes

Contact

For more information on the *Lean Systems Design Institute* course or The Tennessee Lean Enterprise Center, please call or write or email:

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For current news on the Center for Executive Education and its offerings, visit our web site at <http://TheCenter.utk.edu>.

For more information on Lean activities at the University of Tennessee, please visit our web site at <http://lean.utk.edu>.

For more information on *Lean Enterprise Systems Design Institute* please visit <http://leanbusiness.utk.edu>.

Lean Enterprise Design Institute

PROGRAM SCHEDULE

	Monday	Tuesday	Wednesday	Thursday	Friday
8:00-9:45	The Business Case for Lean	Lean Tools I	Team Demos	Theory of Constraints	Administrative Lean
9:45-10:00	Break	Break	Break	Break	Break
10:00-12:00	Value Stream Simulation	Lean Tools II	Team Demos	Theory of Constraints	Administrative Lean
12:00-1:00	Lunch	Lunch	Lunch	Lunch	Lunch
1:00-2:30	The Lean Supply Chain Roadmap	Lean Tools III	Lean as a Growth Strategy: Case Study	Lean Enterprise Game Year 2 Negotiations	Wrap-Up 11:15 - 1:00
2:30-2:45	Break	Break	Break	Break	
2:45 -4:15	Rocky Top Pens Simulation	Value Stream Mapping II	Lean Enterprise Game Presentation 1	Lean Enterprise Game Year 3 Negotiations	
4:15-4:30	Break	Break	Break	Break	
4:30-6:00	Value Stream Mapping I	Lean Demonstration	Theory of Constraints DBR	Lean Enterprise Game Presentation 2	
Sunday reception/ orientation 5:30-7:30 Hilton	Dinner	Dinner	Free Evening	Dinner	