



LEAN SUPPLY CHAIN & WAREHOUSE MANAGEMENT CERTIFICATION

Take the Principles of Lean
Beyond your Shop Floor

UNIVERSITY OF MICHIGAN
COLLEGE OF ENGINEERING



EXTEND LEAN PRINCIPLES TO YOUR SUPPLY BASE

A Lean enterprise requires a Lean supply chain along with Lean production facilities. This certificate program shows you a comprehensive approach to developing a Lean supply chain and logistics system that spans both strategic and tactical challenges.

2010 PROGRAM
DATES
TO BE ANNOUNCED...

InterPro can bring this or any of our programs to your site as custom onsite training. Onsite training can save significantly on training and travel fees.

Register Online Today: InterPro.engin.umich.edu



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Learn from the Experts
We not only use the simulation, we created it!

Our Lean Supply Chain & Warehouse Management instructors are the experts who designed, developed and use the interactive logistics simulation modeling tool exclusive to our program. Benefit from U-M's creative, hands-on simulation that teaches you how to apply what you learn. Our lean supply chain case studies provide real-world examples to illustrate how the concepts can improve your organization.

WHO SHOULD ATTEND

This program is intended for practitioners, decision-makers, supply-chain analysts, and logistics professionals who would like a better understanding of how the different parts of the supply chain work together and how Toyota successfully transformed their world-renown just-in-time supply chain to operate in North America as effectively as it works in Japan. Directors, managers, and staff involved in supply chain management, distribution, inventory control, e-business, procurement, buying, planning, customer service, logistics, manufacturing, operations, shipping or an organizational lean initiative will especially benefit.

CERTIFICATION

A non-credit certificate of professional achievement in Lean Supply Chain & Warehouse Management will be awarded upon successful completion of this program.

LEARNING OBJECTIVES

- Learn Macro Value Stream Mapping and its role in evaluating the extended value chain
- Understand how to improve the flows of material and information in the extended value chain
- Assess where to keep inventory in the value chain and how to manage the inventory
- Evaluate global sourcing opportunities and supplier selection
- Understand the bullwhip effect and causes of variability in the value chain and how to eliminate it using better information sharing
- Learn the role of third party logistics providers and the benefits and risks of using them
- Understand the principles behind Lean Warehousing and how to implement them
- Focus on managing transportation in your value chain
- Assess the role and benefits of ERP, CRM and other information systems
- Become familiar with logistics network design principles as well as the use of milk runs and cross-docks to set up a Lean delivery network
- Understand implementing collaborative planning, forecasting and replenishment with value chain partners
- Successful Lean implementation principles for Vendor Managed Inventory



CUSTOMIZED PROGRAMS

Our programs can be customized to meet your corporate needs and presented at a location of your choice.

Discuss your requirements with our Corporate Program Specialist at **(734) 647-7200** or **MEonline@umich.edu**.



PROGRAM INSTRUCTORS

DR. YAVUZ BOZER, Ford Motor Company
Co-Director of the Tauber Institute for Global
Operations and Professor of Industrial and
Operations Engineering, College of Engineering

DR. IZAK DUENYAS, John Psarouthakis
Research Professor of Manufacturing Manage-
ment and Professor of Operations Management,
Stephen M. Ross School of Business and
Professor of Industrial and Operations
Engineering, College of Engineering

DR. GENE GOODSON, Recently
retired Adjunct Professor in Operations,
Stephen M. Ross School of Business

DR. RAVI M. ANUPINDI, Michael R.
and Mary Kay Hallman Fellow and Associate
Professor of Operations and Management
Science, Stephen M. Ross School of Business

PROGRAM COMPONENTS

STRATEGIC DESIGN AND MANAGEMENT

- Lean logistics overview
- Inventory management
- Macro value stream mapping
- Supplier selection, evaluation and global sourcing
- Value chain integration
- Mass customization principles
- Third party logistics providers
- Distribution system design

TACTICAL TOOLS

- Lean warehousing
- IT in Lean logistics
- Managing distribution and transportation
- Rapid plant assessment of logistics and supply chains

LEAN WAREHOUSING SIMULATION (HANDS-ON)

- Improving lead time, cost, and quality through several rounds of traditional and Lean warehouse simulations
- Applying Takt time to Warehouse Operations
- Using a Progress Control Board
- Proving the impact of Lean concepts to warehouse scenarios
- Applying standardized work to warehouse processes
- Improving flow to reduce waste and minimize congestion

\$6,450* COVERS THE ENTIRE TWO-WEEK PROGRAM

Fee includes tuition, instructional materials, continental breakfast, lunch and a coffee break each day. Fee is payable in advance.* Upon registration, you will receive email confirmation including directions to the program site and recommended lodging.

GROUP DISCOUNT

Registration of five or more individuals qualifies an organization for a group discount. Call **(734) 647-7200** or email **MEonline@umich.edu** to learn more.

HOW TO REGISTER

Visit the InterPro website at **InterPro.engin.umich.edu**, send an email to **MEonline@umich.edu** or call **(734) 647-7200**.

* Program fee at the time of brochure printing. Check our current program fee schedule at InterPro.engin.umich.edu. Fee subject to change. Pricing not valid for onsite or custom programs.

ABOUT INTERPRO

Michigan Interdisciplinary and Professional Engineering (InterPro) develops and delivers programs and services that enable engineers, managers, and technical professionals to be more effective, productive, and competitive. InterPro extends and enhances the programs, capabilities, and relationships of the faculty and affiliates of the College of Engineering by offering graduate degree programs, distance learning, non-credit public short courses, professional certification programs, and conferences.



Graduate degree programs currently offered include:

- Automotive Engineering [online](#)
- Design Science
- Energy Systems Engineering [online](#)
- Engineering Sustainable Systems
- Financial Engineering
- Global Automotive and Manufacturing Engineering [online](#)
- Integrated Microsystems [online](#)
- Manufacturing Engineering [online](#)
- Pharmaceutical Engineering
- Robotics and Autonomous Vehicles

[online](#) Indicates programs with an online delivery option.

Graduate Certificates of Advanced Studies in Engineering (CASE) are also available in some of the programs.

Professional development short courses and certification programs include:

- Six Sigma for product development, manufacturing, and services
- Lean for manufacturing, healthcare and pharmaceuticals, logistics, office and product development

Visit our website at InterPro.engin.umich.edu for information on this and other Michigan Engineering programs including:

- Lean Supply Chain for Healthcare Certification
- Lean Product Development Certification
- Lean Manufacturing
- Lean Office Certification
- Six Sigma Certification
- Design for Six Sigma
- Lean Healthcare Certification
- Lean Pharmaceutical Certification
- Michigan Human Factors Engineering Short Course
- Design & Control of Hybrid Vehicles



To learn more about InterPro programs, visit, InterPro.engin.umich.edu, send an email to MEonline@umich.edu or call (734) 647-7200.



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