Discover How Toyota’s Legendary Product Development System Can Benefit Your Enterprise

LEARN MORE
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LEAN PRODUCT DEVELOPMENT CERTIFICATION
Based on years of research, this program provides an overview of the Toyota Product Development System and its key tools.

Can your enterprise be fully lean without it?

Visit InterPro.engin.umich.edu to learn more about InterPro programs.

Graduate degree programs currently offered include:
- Automotive Engineering
- Design Science
- Energy Systems Engineering
- Engineering Sustainable Systems
- Financial Engineering
- Global Automotive and Manufacturing Engineering
- Integrated Microsystems
- Manufacturing Engineering
- Pharmaceutical Engineering
- Robotics and Autonomous Vehicles

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

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2011 PROGRAM DATES
August 15–19
November 14–18

Ann Arbor, Michigan

CUSTOMIZED TRAINING BRINGS OUR PROGRAM DIRECTLY TO YOU
This program can be tailored for your organization and delivered at your site.

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Overview of Lean Product Development
- Introduction to the Toyota Production System
- Principles of Nemawashi
- RINGI system
- Creating effective A3 reports
- Hoshin management
- Obeya
- Engineering checklists

Value Stream Mapping for Product Development
- Overview of lean processes (such as Kenton, set-based, concurrent engineering) within a lean product development system
- The role of the customer, employees and organization
- People systems: Client engineering and technical skills

Traditional Product Development Simulation
- Illustrates typical wastes
- Tracks metrics associated with traditional wastes

Custom Program Options
Contact us to learn more about customized training and education programs and services that focus on your organization’s unique needs and requirements.
the challenges of leading lean change

Product Process Development Program provides participants with an in-depth understanding of how product development system is critical to Toyota's legendary lean manufacturing capability. The Lean profound, as powerful and as important as the Toyota Production System (TPS). This fully integrated

PROGRAM OVERVIEW
This five day product development program provides an overview of the Toyota Product Development System (TPDS) and its key principles. The Toyota Product Development System is arguably as profound, as powerful and as important as the Toyota Production System (TPS). This fully integrated product development system is critical to Toyota's legendary lean manufacturing capability. The Lean

LEARNING OBJECTIVES
- Learn about the lean product development process, people systems and the tools of the Toyota Product Development System
- Apply value stream mapping techniques to product development
- Create an implementation plan for your organization
- Develop systematic error proofing processes
- Acquire tools for effectively launching your new product
- Consider the roles of organizational culture and the challenges of leading lean change

WHO SHOULD ATTEND
Professionals involved in:
- Product planning
- Product design and development
- Process development
- Product and process validation
- Manufacturing or product launch

$2,950* COVERS THE ENTIRE FIVE-DAY PROGRAM
Fee includes tuition, instructional materials, continental breakfast, lunch and breaks each day. Fee is payable in advance.* Upon registration, you will receive an email confirmation including directions to the program site and recommended lodging.

CERTIFICATION
A non-credit certificate of professional achievement in Lean Product & Process Development will be awarded upon successful completion of this program.

GROUP REGISTRATION
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 Lean Product Development website at InterPro.engin.umich.edu/LeanProductDevelopment, email MEonline@umich.edu or call (734) 647-7200.

*Program fee at time of brochure printing. Check our current program fee schedule at InterPro.engin.umich.edu/LeanProductDevelopment. Fees are subject to change.

Joe Götz, a Six Sigma Black Belt, teaches lean accounting, lean engineering and lean manufacturing at the University of Michigan.

Simon Drogosz
is a Senior Consultant at Optiprise, Inc. and has over 20 years of experience. He conducts Lean Enterprise Rapid Improvement workshops at Northrop Grumman Ship Systems and Value Stream Mapping and Rapid Improvement workshops with Johnson Controls in Asia. Dr. Drogosz, a Six Sigma Black Belt, teaches lean accounting, lean engineering and lean manufacturing at the University of Michigan.

JOHN DROGOSZ, Ph.D.
Steve Hoeft
is a Senior Analyst at New Vectors, L.L.C., Lean Enterprise change agent and manufacturing engineer with over 10 years of experience, including Johnson Controls, Inc. and Toyota Motors Manufacturing in Georgetown, Kentucky. For the past eight years, he has directed and led Lean Enterprise consulting services for a wide variety of commercial enterprises.

STEVE HOEFT

PROGRAM COMPONENTS

Overview of Lean Product Development
- Introduction to the Toyota Product Development System
- Problems with traditional product development and product development wastes
- Overview of lean processes (such as Kenton, set-based, concurrent engineering) within a lean product development system
- The role of the customer, employees and organization
- People systems: Client engineering and technical skills

Traditional Product Development Simulation
- Illustrates typical wastes
- Tracks metrics associated with traditional wastes

The Tools of Toyota Product Development System
- Principles of Nemawashi
- Ringi system
- Creating effective A3 reports
- Hoshin management
- Obeya
- Engineering checklists

Lean Product Development Simulation
- Apply lean tools and techniques to the product development process
- Track the metrics and realize the impact

Value Stream Mapping for Product Development
- Introduction to value stream mapping
- Mapping the current state
- Lean product development principles
- Mapping the future state
- Creating an implementation plan

- Error proofing
- Process for systematic error proofing
- Definitions and applications

CUSTOM PROGRAM OPTIONS
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Professional development short courses and certification programs include:
- Six Sigma Certification
- Transactional
- Manufacturing
- Healthcare
- Design for Six Sigma Certification
- Toyota Kata
- Lean-Six Sigma Certification
- Lean Manufacturing Certification
- Lean Office Certification
- Lean Healthcare Certification
- Lean Supply Chain for Healthcare Certification
- Lean Supply Chain & Warehouse Management Certification
- Lean Pharmaceutical Certification
- Michigan Human Factors Engineering Short Course
- Design & Control of Hybrid Vehicles
- Financial Management for Engineers
- Dynamics of Heavy Duty Trucks

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