# ADVANCED MANUFACTURING (LEAN) PRACTITIONER II CERTIFICATE

## *Learn why Lean makes work rewarding and at the same time profitable and enduring.*

Upon successful completion of this series, each attendee receives a Purdue University Advanced Manufacturing Lean Practitioner II Certificate. This certificate is based on the National Institute of Standards and Technology's (NIST) prescribed tools and training methods, a widely accepted national standard in workforce development, and is offered in Indiana only through Purdue University. To earn your Advanced Manufacturing (Lean) Practitioner I certificate, please register for the entire series which includes all five workshop dates.

## Areas of Focus:

**Day 1: Cellular Flow Manufacturing (8 hrs)**
Discover how to link and balance operations to reduce lead times, minimize WIP, optimize floor space usage and improve productivity using a five-step process for designing and implementing work cells.

**Day 2: Inventory Management using Pull/Kanban (8 hrs)**
Pull/Kanban is a lean technique used to control the flow of work by replacing only what has been consumed. A pull/Kanban system can result in increased productivity and efficiency and reduced waste. In this workshop, you will learn the steps for implementing a pull/Kanban system and the keys to successful implementation in your environment.

**Day 3: Problem Solving Using PDCA, A3, and Root Cause Analysis (8 hrs)**
In this course, participants will learn about the Plan, Do, Check, Act (PDCA) problem solving method. In addition, participants will learn about problem solving tools and activities, including A3, root cause analysis, process mapping, cause and effect diagrams, and others. Using a variety of real-world scenarios and hands-on activities, participants will practice implementing problem-solving methods and tools.

**Day 4: Standard Work (4 hrs) & Error Proofing (4 hrs)**
Standard Work: Provides you with the information and practice you need to participate in implementing standardization and standard work in your workplace. This workshop presents an approach to implementing standardization and standard work methods designed to eliminate waste from production processes. The methods and goals discussed in this workshop are closely related to the lean manufacturing system. Error Proofing: Using simple, usually low-cost devices, fixtures, and procedures to reduce/eliminate errors. Stops errors before defective parts are created. Frees up the need for human vigilance and memory.

**Day 5: Kaizen Event Facilitation (8 hrs)**
Kaizen means "continuous improvement." This continuous improvement methodology combines Lean Manufacturing Tools such as the 5Ss of Workplace Organization and Standardization, Cells, Pull/Kanban, Set-up Reduction, and Line Balancing. Each tool incorporates team empowerment, brainstorming, and problem solving to rapidly make improvements to a specific product or portions of work processes.

## Additional Information:

**Intended Audience:** Manufacturing personnel, including technicians, engineers, and managers.
**Credits:** Workshop qualifies for 4.0 CEUs (continuing education units) through Purdue University.