

Introduction to Lean Manufacturing with Simulation

written by Lauri Moon | February 7, 2025



Introduction to Lean Manufacturing with Simulation

(6-hour, in-person, Altoona, PA)

This program starts in:



In today's fast-paced, competitive environment, **improving efficiency and eliminating waste** is crucial for long-term success. This 6-hour Lean Manufacturing course is designed to equip participants with a fundamental understanding of Lean principles that **drive real, measurable improvement** in company operations. Participants will dive into essential Lean tools and methods, such as Value Stream Mapping, Workflow Analysis, Pull Production, 5S Workplace Organization, Visual Management, and more. You'll explore how each technique **solves specific problems and contributes to smoother workflows, reduced waste, and**

improved bottom lines. With hands-on exercises in a simulated environment, attendees will not only learn the theory behind these tools but also apply them in practice. By the end of the course, participants will understand how to assess improvement opportunities, choose the right techniques for your organization, and **implement strategies that ensure success.**

Register

Register now for only \$389 per person!

Learning Objectives:

- Understand and apply the 5 core principles of Lean thinking to drive continuous improvement.
- Differentiate between value-added activities, non-value-added activities.
- Recognize the eight types of waste and develop strategies to reduce them for optimal efficiency.
- Use value stream mapping to identify bottlenecks and improve flow across processes.
- Gain insights into key Lean methods and learn how each technique addresses specific operational challenges.
- Apply Lean tools in a hands-on, simulated environment to experience real-world impact.



Course Outline:

- Introduction to Lean Manufacturing
 - Understand the fundamentals of Lean principles and their impact on operational efficiency.
- Simulation - Round 1
 - Apply traditional manufacturing practices in a simulated environment to observe current processes.
- Round 1 Debrief
 - Analyze results from Round 1 and discuss key learnings and opportunities for improvement.
- Overview of Traditional Manufacturing
 - Examine traditional manufacturing practices and understand how Lean differs and improves upon them.
- Introduction to Process Improvement & Systems Thinking
 - Explore the importance of viewing processes holistically and understanding interdependencies for continuous improvement.
- Key Lean Tools: Value Streams, Standard Work, Flow, and Visual Management
 - Learn to identify value streams, implement standard work, and apply visual management techniques for better organization and flow.
- Simulation - Round 2
 - Apply new Lean concepts in the simulation to create measurable improvements.
- Round 2 Debrief
 - Review the results of Round 2 and identify areas for further refinement.
- Advanced Lean Techniques: Pull Scheduling, Batch Size Reduction, Setup Reduction, TPM, and Cellular Flow
 - Delve into more advanced Lean methods designed to optimize production scheduling, reduce waste, and improve machine efficiency.
- Simulation - Round 3
 - Implement the advanced techniques in the final simulation to test

improvements and optimize flow.

- Round 3 Debrief
 - Reflect on the outcomes of Round 3 and discuss final adjustments for continuous improvement.
- Strategies for Successful Lean Implementation
 - Learn how to effectively implement Lean practices in your organization to ensure long-term success.
- Course Conclusion
 - Recap key takeaways and next steps for applying Lean manufacturing techniques in the real world.

[Register](#)

Register now for only \$389 per person!

Who Should Attend:

Operators, Technicians, Engineers, Supervisors, and Managers

Why Attend:

Elevate your manufacturing operations by attending our “Introduction to Lean Manufacturing with Simulation” workshop. Here’s why this opportunity is essential for your business:

- **Master Lean Principles:** Gain a comprehensive understanding of Lean methodologies to drive continuous improvement and operational excellence.
- **Identify and Eliminate Waste:** Learn to pinpoint inefficiencies within your processes and implement strategies to reduce waste, leading to cost savings and enhanced productivity.
- **Enhance Workflow Efficiency:** Discover how to streamline workflows, minimize bottlenecks, and improve process flow to boost overall efficiency.
- **Hands-On Experience:** Engage in practical simulations that allow you to apply Lean tools and techniques in a controlled environment, ensuring you’re ready to implement them in your operations.

- **Boost Customer Satisfaction:** Implement Lean strategies to improve product quality and delivery times, resulting in higher customer satisfaction and loyalty.

Don't miss this chance to transform your manufacturing processes and achieve sustainable success. Join us and take the first step toward a Leaner, more efficient future.

Want more? Click to learn more about our Lean Manufacturing Practitioner Certification program starting May 12th!

Instructor:



Max Krug, Owner and Change Management Champion at Future State Engineering, has 30 years of experience in operations, and his range of expertise and experience includes manufacturing operations, distribution, and project management environments. His expertise is assisting organizations achieve Operational Excellence by utilizing Theory of Constraints, Lean Management, and Six Sigma methods. He works with companies to develop corporate strategy and provides hands-on implementation support of the tactics required to achieve Operational Excellence utilizing these techniques. Max holds several certifications in Theory of Constraints, Lean, and Six Sigma in addition to a B.S. in Industrial Engineering from Alfred University and an MBA from St. Bonaventure University.



This program is WEDnetPA eligible.

Lean Manufacturing Practitioner Certification

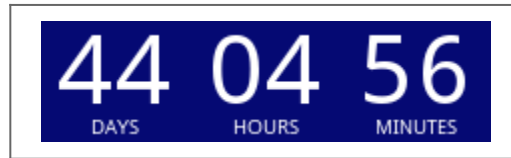
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Lean Manufacturing Practitioner Certification

(5-day, in-person, Williamsport, PA)

This program starts in:



Imagine being able to pinpoint areas within your operations where **resources are being underutilized, or unnecessary steps are slowing down production.** Through practical, hands-on workshops, you'll learn how to systematically improve these processes, leading to **reduced expenses and improved profitability.** The Lean Manufacturing Practitioner Certification is your gateway to **transforming your manufacturing processes and driving significant improvements** in your business. By participating in this certification program, you will gain essential skills to **identify and eliminate wasteful practices, ultimately saving costs and increasing efficiency.**

[Register](#)

Register now for only \$1,795 per person!

Learning Objectives:

This course equips you with the ability to:

- Foster a **culture of continuous improvement** within your organization
- **Understand and apply lean tools** such as value stream mapping, workplace organization, change management, teaming and kaizen methodology
- Learn **collaborative problem-solving** techniques
- **Enhance overall productivity and employee engagement**
- **Turn data into actionable information** in order to quantify problems and prioritize countermeasures



Program Outline:

Day 1 - May 12, 2025

- Introduction to Lean
- Batch Simulation
- Lean Assessment - Value Stream Analysis
- Project Selection - Lean Team vs. Kaizen

Day 2 - May 13, 2025

- 5S - Sort, Scrub, Shine, Standardize, Sustain
- Managing Constraints
- Load Leveling
- Data Collection
- Single Minute Exchange of Die

Day 3 - May 14, 2025

- Process Flow Design
- Principles of Ergonomics
- Standard Work
- Supermarket Strategy
- Pulling Flow - Kanban

Day 4 - May 15, 2025

- Total Productive Maintenance (TPM)

- Supplier Integration
- Visual Management
- Reporting Results
- Financial Tracking

Day 5 - May 16, 2025

- Creating Implementation Plan
- Communicating Lean
- Continuous Learning of Lean Principles
- Discussion and Q&A

Schedule:

This 5-day (34 hours) program is May 12 thru May 16, 2025. Monday thru Thursday 8:00 a.m. - 4:00 p.m., Friday 8:00 a.m. - 12:00 p.m.

[Register](#)

Register now for only \$1,795 per person!

Why should you attend?

- Gain knowledge for using **A3 methodologies**, improving team communication, reducing collaboration challenges
- Learn the **value stream mapping** (VSM) process to help you **identify waste, reduce lead times, standardize workflows** keeping costs low and efficiencies high
- Boost team **productivity** by making every minute count, streamlining processes to **reduce waste** and create a **safe workplace** that fosters innovation
- **Improve communication** at all levels of your organization, changing hurdles and obstacles into **opportunities** for change and transition
- Create an **individualized roadmap** linked to your company objectives that **ends frustration** and **misunderstanding** during team efforts

What's included?

- There will be numerous opportunities to network with peers, gain insights from manufacturing operations that are different from your own and build essential skills that will inspire you for improved performance
- You will receive a training manual complete with all materials necessary for the course
- Stylish commemorative award and certificate of completion
- Light breakfast and lunch during session days

Who should attend?

Production or process managers/supervisors, front-line leaders/supervisors, operations managers, quality control leaders, shift leaders, small business owners, and others who want to increase their knowledge of manufacturing methodologies and advance in their profession.



Instructor:



David Athon, President, Athon Group of GA, LLC, has spent most of his career introducing Lean Enterprise principles into manufacturing and transactional environments. He has developed a unique method of integrating Six Sigma and Lean into a single, balanced system. As a certified instructor in both Six Sigma and Lean, David has been educating and consulting since 1996, starting with Lean Enterprise and Continuous Improvement methodologies, adding Six Sigma to his abilities in 2000. As a Master Black Belt, David has held positions in a variety of industries including apparel, metal office furniture, sheet metal, aerospace and

commercial air refrigeration.



This program is WEDnetPA eligible.

[Click here for additional information on IMC's Lean Manufacturing Practitioner Certification program.](#)

Success Story: Pik Rite, Inc. Implements Strategies Learned Through IMC's CI Programs with Positive Impact on Production

written by Lauri Moon | February 7, 2025



Pik Rite was founded by Elvin Stoltzfus and Joe Yoder with a focus on creating a mechanical method for picking tomatoes. Their first machine was built in 1983, and by 1986, Pik Rite had manufactured three harvesters and incorporated the company.

From its initial tomato harvester, Pik Rite has diversified its product line to include equipment for harvesting cucumbers, peppers, gourds, zucchini, squash, pumpkins, and carrots. Additionally, Pik Rite produces vine diverters, commercial waste handling vacuum tanks, water hauling trailers, truck mounted dump bodies, manure spreaders, and municipal leaf collection units. Pik Rite also has a dedicated contract manufacturing line.

Pik Rite has steadily grown since the 1990s, expanding its market coverage, sales, and technological innovations both domestically and internationally. Based in Central Pennsylvania, the company now employs nearly 100 people across two facilities in Lewisburg, PA.

With continuous growth in business and varied industrial and agricultural markets, Pik Rite sought to increase production capacity and capabilities while maintaining their high-quality standards and design flexibility.

Pik Rite faced several critical challenges in their production process that hindered efficiency, employees, and ultimately customer satisfaction. The main bottleneck was cumbersome production flow due to fragmented processes, which led to frequent delays and increased operational costs. Material handling issues further complicated these inefficiencies, as the lack of streamlined systems resulted in frequent delays and product mismanagement. Employees reported dissatisfaction stemming from repetitive, unnecessary tasks, impacting overall morale and productivity. This ultimately resulted in strained relationships with clients.

Pik Rite has a long-established relationship with the Innovative Manufacturers' Center (IMC) and IMC is a contributor to Pik Rite's continuous improvement journey. Pik Rite selected several personnel to attend the IMC's Lean Level 1 and 2 certification programs to seek potential strategies to address its current challenges in production as well as to build on its mission to give everyone "the opportunity to grow personally while engaging in an atmosphere of unity, respect, and integrity."

Through both the training program and post training assessments, Pik Rite implemented strategies learned from the IMC certification programs that included but were not limited to:

- Streamlined receiving and storage methods in the material warehouse to eliminate waste and improve material flow.
- Implemented a small parts handling system in the fabrication shop to reclaim lost floorspace, eliminate wasted motion, and improve overall flow and efficiency.
- Relocated materials in the fabrication shop for easier access for fabricators.
- Created multiple travel lanes throughout the entire facility to provide direct access from the fabrication shop to the production floor.
- Implemented a smart organization and carting system for Harvester fabricated parts.
- Started a safety hazard removal initiative in the fabrication shop.

These changes led to increased flow in the fabrication shop and production area, reducing the time employees spend searching for materials. Raw materials now flow into the storage areas seamlessly and can be retrieved safely and quickly by the operators.

Fabrication has become approximately 15% more time efficient while utilizing full sheets of raw material. Production now tracks and utilizes 100% of their remnant material, up from approximately 25%. Overall throughput has increased by 8-10% with these changes and has even spiked to 20% in unique scenarios. Since implementing a safety hazard removal initiative in the fabrication shop, Pik Rite has had zero incidents, improving from 1-2 reported incidents per month, previously.

“The IMC and its staff have played an integral part in the success of Pik Rite’s Continuous Improvement culture as well as directly influencing more efficient production and operations. The proof is in our results – our workplace is safer, our employees are happier, and we’re getting more quality work delivered to our customers, faster.”

Caleb Thomas, Product Line Manager

Success Story: QCast Aluminum - Casting for Efficiency

written by Lauri Moon | February 7, 2025

IMC Facilitates a Value Stream Map for QCast Production Process Improvement



Located in New Berlin PA, (approximately 30 miles south of Williamsport, PA) QCast Aluminum Co. is a family owned, high-quality manufacturer of aluminum sand castings for commercial industries. QCast manufactures all their products in the USA and can

produce excellent finishes and sizes of parts, including prototypes and small to large production runs from 1 oz. to 300 lbs. They work with customers to develop a mutually beneficial long-term relationship and have a strong commitment focused on service, quality, deliverability and affordability. They have grown to become one of the highest quality sandcasting companies at the most competitive price.

Situation:

Working with our strategic partner PennTAP, who sponsored an E3 project (Economy, Energy & Environment), the Innovative Manufacturers' Center (IMC) was engaged to facilitate a Value Stream Map (VSM) to determine why QCast's production was unable to meet desired delivery times for their customers. The scope of the value stream map began with the core preparation area of production and ended at the finishing area. The VSM continued to track the various operations that included saw, belt sand, blast, drilling and inspection in the finish area.

The Work In Process (WIP) materials for the finishing area were stored in scattered locations causing some delays in finding them for finishing. In addition, the molding

process continued to run at a faster pace than finishing could respond, creating a bottleneck in production flow. An accurate inventory was taken of the WIP at the finishing stage, and it was learned that 3x the original estimate of pieces was there. The mindset within the facility is one that is grounded upon 'keep the molders running', which caused overproduction and a choke point in finishing customer orders.

Adding to production flow delays, finishing operators performed excessive amounts of searching, stretching, reaching and bending for the parts resulting in additional non-value added efficiency losses. It was evident that in addition to the overproduction of parts, their multiple locations in the finishing area took time away from actual finishing work thus contributing to not meeting the delivery times promised to their customers.

Solutions:

At the completion of the 'Current State' VSM the project team, facilitated by the IMC, determined the 'Future State', which led the company to define several objectives. QCast wanted to exceed customer expectations by utilizing an effective pull system that would generate a 7-day throughput with a 4-week lead time, 99% on time delivery and a 100% quality level by September 1, 2023. Through the input of the QCast team, the IMC generated a series of challenges for the company to tackle and record the results over the next several weeks. The first two target conditions were designing a 'supermarket' that would visually control the work in progress inventory levels to 3-5 days and to improve the efficiency of the belt sanding area to 85%. The QCast VSM team conducted various experiments to see how best to meet their first target conditions.

Over the next several months the improvement in excess production was moving in the right direction; however, the team was still finding difficulty in addressing the finishing department's challenges, which were defining standard work and overcoming a shortage of labor.

Results:

Actual inventory being produced was tracked on a weekly basis, which resulted in the reduction of WIP sitting at the finishing stage by 54%. The finishing department continued to see challenges to meet the target condition until a member of the VSM team tried an experiment with the finishing of parts by running them through a tumbler; a process used in their sister company's metal fabrication process. The results were very promising. After continued experimentation with various aspects of the tumbling process including time, media and actual parts to be finished, the company has calculated that they could increase finishing productivity by up to 300%. Because of the IMC's VSM facilitation, the members of the QCast team were able to implement a series of experiments and apply the continuous improvement culture that enables them to find a solution far beyond the original expectations. The company is planning on investing in the appropriate equipment during the first quarter of 2024 that will include the tumbling stage in their finishing process enabling them to reduce overall throughput and meet the delivery times their customers expect.



Testimonial:

“The Value Stream Mapping exercise conducted by the IMC enabled us to visually see the overall production process and the areas we needed to target for improvement. Without this process, QCast may not have identified the key areas needed to meet our overall objectives. We look forward to continuing to work with the IMC in the future.” Terry Arnold, General Manager, QCast Aluminum

Contact IMC:

To learn how IMC can assist your Central PA manufacturing company with process improvement, contact us at 800-326-9467 or info@imcpa.com.

Problem Solving with Root Cause Analysis

written by Lauri Moon | February 7, 2025



Problem Solving with Root Cause Analysis

(in-person program held in Williamsport, PA)



What is Root Cause Analysis?

When you pull weeds out of your yard or garden, what happens when you don't get the roots? The weeds grow back. Likewise, when we solve a problem only at a symptom level, not at the root, the problem keeps coming back. Root Cause Analysis is a method to properly identify, define, analyze, and solve a problem at its root.

Register now for only \$189!

[Register](#)

Learning Objectives:

- Discover problem definition and proper communication with stakeholders
- Examine problem identification, analysis, validation, and prioritization
- Learn how to unlock root causes, identify, and implement solutions

Program Outline:

- What is a root cause?
- Introduction to PDCA Cycle
- Problem recognition and definition
- Problem validation
- Analyze potential causes and find the root
- Develop a solution
- Standardize the solution
- Closing Discussion

Who Should Attend:

This program provides a practical overview and teaches the basic concepts of Root Cause Analysis. Perfect for frontline leaders, new managers, maintenance personnel, and anyone whose job involves problem solving - the techniques taught at this workshop can be implemented immediately.

IMC 032124 RCA Flyer

[Register](#)



Instruction provided by IMC Business Advisor Tim Davis. Tim has over 35 years of management and operational experience in manufacturing businesses in Central and Southwestern PA. Various career roles include Operations Manager, Safety Manager, HR Manager, Sales Manager, Sales Rep, Service Manager, executive/business coach and trainer. His areas of expertise include employee development, strategic planning, people skills, effective communication, leadership, safety, time management, sales and customer service.

This training qualifies for WEDnetPA funding for qualified participants. Not familiar with WEDnetPA funding, contact IMC at info@imcpa.com or (800) 326-9467.

Safety - Lockout Tagout

written by Lauri Moon | February 7, 2025

For several years the Lockout Tagout (LOTO) category has been listed among OSHA's Annual Top 10 Most Cited Violations for General Industry. Controlling hazardous energy with appropriate LOTO procedures and equipment is a life or death situation. According to OSHA, complying with the LOTO standard prevents an estimated 120 fatalities and 50,000 injuries every year. However, based on the number of violations, injuries and even deaths as an industry we still struggle with compliance.

In this free one-hour webinar we will:

- Cover the requirements of 29 CFR 1910.147 Control of Hazardous Energy
- Provide applicable best practices that can be applied immediately to help with compliance
- Discuss some common issues with LOTO programs
- Discuss some methods to ensure your program is compliant

Instructor



This course will be taught by Food Processing Specialist, Janna Hamlett of TechHelp, and the University of Idaho.

[**Register**](#)

Safety Culture in the Post-COVID-19 Workplace

written by Lauri Moon | February 7, 2025

As American workplaces face challenges presented by COVID-19, cultivating organizational safety culture is taking on new importance. EHS pros everywhere are faced with new hazards, new safety protocols, and new daily routines; all of it while

dealing with dispersed teams, “re-entry anxiety” on the part of the workforce, and the need for new approaches to safety programs.

Join **Anna Nieman**, Director of Content at Marlin Software and **Camille Oakes, CSP**, the owner of Better Safety to learn how visual communication and employee engagement strategies can help you create a resilient safety culture and keep the employees connected, informed, invested and safe as they re-enter the workplace.

Speakers



Camille Oakes, CSP, Founder, Better Safety

Camille Oakes, CSP is a safety professional with fourteen years of experience in the field of safety and health in diverse industries including warehousing, transportation, supply chain, packaging, government and military contracting. She is a skilled facilitator, content creator, and organizational change agent. As the founder of Better Safety, Camille helps companies develop better training, better culture and better business practices to improve their safety performance.



Anna Nieman, Director of Content, Marlin Software


Anna Nieman is a workplace communication professional with over 15 years of experience in the field of visual communications. As Director of Content at Marlin Software, she fuses EHS expertise with a deep understanding of core trends in digital media to create tools for strategic safety communication in the workplace. Anna holds a 30-hour OSHA Certification and a graduate degree in Film Studies.

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Improving Plant Efficiencies and Performance During Unstable Times

written by Lauri Moon | February 7, 2025

With the current instability of national and local markets, it is important to  ensure that your facility is performing as efficiently as possible. The most efficient operations not only last through downturns but also expand the fastest once the market recovers. As such, now is a great time to ensure that your manufacturing process is operating at top efficiency.

PennTAP's Economy, Energy, and Environment (E3) program brings together experts in continuous improvement, energy efficiency, and waste minimization to greatly improve plant efficiencies and performance. In this webinar, PennTAP will review the E3 process and provide information on the first steps to improving your process.

Peter Piergiovanni, Pollution Prevention Coordinator for the United States Environmental Protection Agency, will present on the E3 program's background and methods. Royal Smith, Technical Advisor for PennTAP, will review the E3 process and stories from previous E3 event.

[Register](#)

Increase Your Understanding of PPE and Occupational Safety Equipment Standards

written by Lauri Moon | February 7, 2025

Attention manufacturers of personal protective equipment (PPE) and safety equipment, this is an opportunity to hear directly from the International Safety Equipment Association (ISEA), an association for PPE and technologies that enable people to work in hazardous environments. ISEA is an American National Standards Institute-accredited standard developing organization.

ISEA works closely with manufacturers, test laboratories, subject matter experts, end users and government agencies in the standards development process and with its members to support protecting workers worldwide. MEP Center staff will gain an understanding of the PPE standards ecosystem and be able to identify appropriate PPE standards for head and face protection in occupational settings.

[Register](#)

Webinar login information will be provided prior to the event.

Cybersecurity Requirements for Defense Contractors

written by Lauri Moon | February 7, 2025

The Department of Defense has begun to revise the cybersecurity requirements all contractors must adhere to in order to remain part of their critical supply chain. Attend this webinar to learn about new cybersecurity developments and how they affect current and future contracts.

Primary Topics:

- Changes to Department of Defense cybersecurity requirements
- Upcoming certification requirements
- Common issues faced by contractors and how to overcome them

Presenter:

Jeff Williams, Cybersecurity Program Manager - Michigan Manufacturing Technology Center

Jeff Williams is a Project Manager for The Center's cybersecurity team, leading efforts to educate and equip small and medium-sized manufacturers to guard against the growing threat of cyber-attacks. One of his main areas of focus relates to the cybersecurity requirements outlined in NIST Special Publication 800-171, designed to protect the information security systems of contractors working with the Department of Defense. In addition to serving Michigan's manufacturing community, Jeff also is involved with training other MEP Centers across the U.S. This effort will enable those Centers to provide cybersecurity services to manufacturers in their states.

[Register](#)

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