

MICHIGAN

MANUFACTURING

TECHNOLOGY

CENTER



# 2025 CATALOG

COURSES | MENTORING | CONSULTING

GOING **PRO** 



STAY UP-TO-DATE  
VIEW ONLINE

A woman with long blonde hair, wearing a dark blazer, stands on the right side of the frame, gesturing with her hands as if presenting. In the background, several people are seated at a long table, looking towards her. The entire image has a blue tint. The text is overlaid on the left side in white and orange boxes.

# YOUR JOURNEY TO MANUFACTURE SMARTER BEGINS RIGHT HERE WITH US.

## THE MICHIGAN MANUFACTURING TECHNOLOGY CENTER

has assisted Michigan's small and medium-sized businesses since 1991. Through personalized services to meet the needs of clients, we develop more effective business leaders, drive product and process innovation, promote company-wide operational excellence and foster creative strategies for business growth and greater profitability.

**MICHIGAN**  
MANUFACTURING  
TECHNOLOGY  
CENTER



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# ABOUT US

The Michigan Manufacturing Technology Center understands what enables businesses to grow and provides services to implement and track strategies that do so.

## MISSION

The Michigan Manufacturing Technology Center is dedicated to empowering Michigan manufacturers to compete and prosper.

## WHAT WE BELIEVE

Michigan manufacturing. It's what drives us. It's why we exist. To make manufacturers better, to show them how to grow, adapt and add jobs here. We assist by showing best practices. By finding efficiencies. By connecting manufacturers with partners. By coaching. By leading. And by doing the little things that add up to greatness. Our team delivers by lowering costs, reducing waste and more. Manufacture more efficiently. Manufacture more competitively. Manufacture smarter.

*The Michigan Manufacturing Technology Center is accredited by the International Association for Continuing Education and Training (IACET) and is authorized to issue the IACET CEU.*



*Michigan Manufacturing Technology Center is recognized by SHRM to offer Professional Development Credits (PDC) for SHRM-CP® or SHRM-SCP® recertification activities.*





# REGISTERING IS QUICK & CONVENIENT

Advance registration is required. Since many courses fill early, we recommend registering at least four weeks before the course begins. Prices are subject to change.

## TRAINING SITE

Courses are scheduled at Michigan Manufacturing Technology Center (45501 Helm St., Plymouth) and select locations throughout Southeast Michigan. Customizable courses can be conducted at your facility. Courses cover Food Processing, GD&T, Blueprint Reading, Industry 4.0, Leadership and Workforce, Lean, Quality Management, Safety, Six Sigma and Supply Chain Optimization.

## REGISTER ONLINE

Registering online is quick and convenient with our secure registration system using your credit card. To search or register for upcoming events and classes, visit [The-Center.org](http://The-Center.org).

## CONTACT US

Speak with a Michigan Manufacturing Technology Center Business Solutions Manager or register for upcoming classes by calling 888.414.6682 during business hours: Monday through Friday, 8:00 AM to 5:00 PM or email [inquiry@the-center.org](mailto:inquiry@the-center.org).

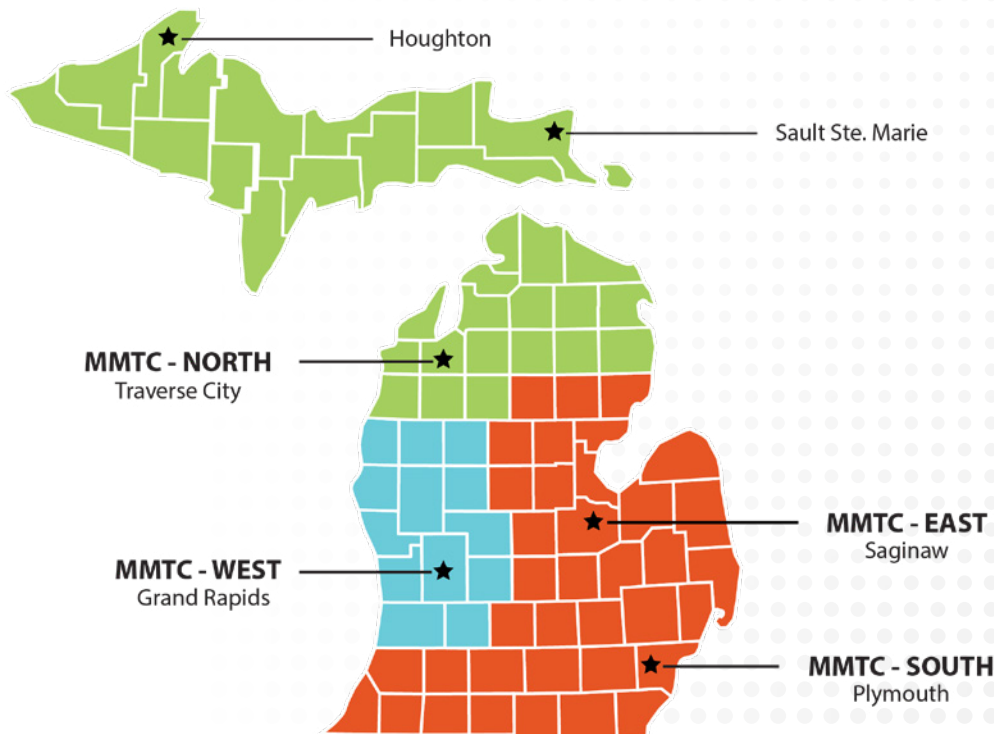
## NO SHOW/CANCELLATION/ RESCHEDULING POLICY

ALL NO SHOW, CANCELLATION, AND RESCHEDULING CHANGES ARE SUBJECT TO THE FOLLOWING CONDITIONS:

1. Any training/consulting rescheduled, cancelled, or a no show less than fifteen (15) calendar days prior to its start date, will be 100% invoiced directly to the Client, due NET 30 from the date of invoice. MMTC will work with the Client to reschedule within thirty (30) calendar days.
2. No charges will be incurred for cancelled or rescheduled training/consulting by written notification more than fifteen (15) calendar days prior to the start date of training/consulting.
3. Travel expenses associated with onsite training and consulting are subject to invoicing as outlined in MMTC's Terms and Conditions. If you need further assistance or clarification regarding these terms, please contact your Business Solutions Manager.

View MMTC's full Terms and Conditions policy at [www.the-center.org/TOC](http://www.the-center.org/TOC).

# LOCATIONS



# OUR SUCCESS DEPENDS ON YOURS

After completing a project with MMTC, our clients are surveyed by an independent third party to gauge the impact of our services on operational performance. Focus is placed on jobs retained or created, investments made, sales generated or retained and the calculation of cost savings.

## WHAT WE DO

### GROWTH

Strategy to improve business. Marketing that attracts customers.

### OPERATIONAL EXCELLENCE

Proven solutions. Achieve greater success. Quality, Lean, Assessments.

### LEADERSHIP DEVELOPMENT

Hands-on learning. Thorough business analysis. Management training.

### SKILL DEVELOPMENT

Advance faster. Six Sigma, QMS, supply chain, sales, blueprint reading.

### ACCELERATING TECHNOLOGY/INDUSTRY 4.0

Make effective strategic decisions. Industry 4.0. Information Security. Advanced tools to gain insights.

### RESEARCH SERVICES

Get answers. Explore facts. Find the information. Qualitative and quantitative.

### FOOD PROCESSING

Improve efficiencies. Process standardization and prevention-based controls.

### HOW WE ASSISTED 584 MICHIGAN MANUFACTURERS IN THE PAST YEAR:



**\$608M**  
IN NEW OR RETAINED SALES



**\$29M**  
IN COST SAVINGS



**\$105M**  
INVESTMENTS MADE



**4,949 JOBS**  
CREATED OR RETAINED

## STAY CONNECTED WITH US

### ANYWHERE, 24/7

Stay on top of industry trends and connect with the Michigan Manufacturing Technology Center online to find opportunities for networking, knowledge sharing with peers, upcoming events and the latest in manufacturing news.



FACEBOOK



LINKEDIN



INSTAGRAM

# CONNECTING

# MANUFACTURERS WITH

# CRUCIAL RESOURCES



## BUILDING A STRONGER WORKFORCE WITH THE GOING PRO TALENT FUND

The Going PRO Talent Fund (GPTF) is an initiative of Michigan Works! that provides employers with vital funding to close skill gaps and develop and retain talent. This competitive program **provides up to \$2,000 per person for training and \$3,500 for apprenticeships** leading to an in-demand skill or credential. MMTC helps companies apply for funding and develop comprehensive training plans that meet GPTF requirements. Most MMTC courses are eligible for funding. **The GPTF application period opens in April 2025.**



## ADVANCE TOWARDS THE FUTURE OF MOBILITY WITH STC FUNDING

The world is experiencing a once-in-a-century mobility revolution, and the Detroit region is poised to ensure the U.S. leads the way. Have you started thinking about how this will impact your business? If not, you need to.

The Supply Chain Transformation Center (STC) provides qualified manufacturers with a highly experienced team and **50/50 cost share of matching funds up to \$100,000 for technical assistance projects** and resource support for manufacturers with fewer than 500 employees, deriving more than 10% of annual revenues from the mobility or transportation sectors, and operating within Genesee, Lapeer, Lenawee, Livingston, Macomb, Monroe, Oakland, Shiawassee, St. Clair, Washtenaw, or Wayne counties.

Michigan Manufacturing Technology Center is working alongside the University of Michigan's Economic Growth Institute to support manufacturers who receive funding. **All MMTC training and consulting services are eligible, including Lean, Quality, Advanced Technology, Six Sigma, Leadership/Culture and more.**



## BECOME A DOD SUPPLIER WITH THE SUPPORT OF MDRC

The Michigan Defense Resiliency Consortium (MDRC) is guiding the defense industry's transition to electric vehicles and creating valuable energy storage and battery manufacturing infrastructure throughout Michigan. MDRC connects your Michigan ingenuity to the DoD's energy needs, unlocking growth and propelling your role in the defense energy storage and battery supply chain. Led by the University of Michigan Economic Growth Institute, the MDRC has received more than \$6.3M in grant and community funding to pursue technical assistance, workforce training, research, and technology acceleration initiatives that support electrification and national security priorities.

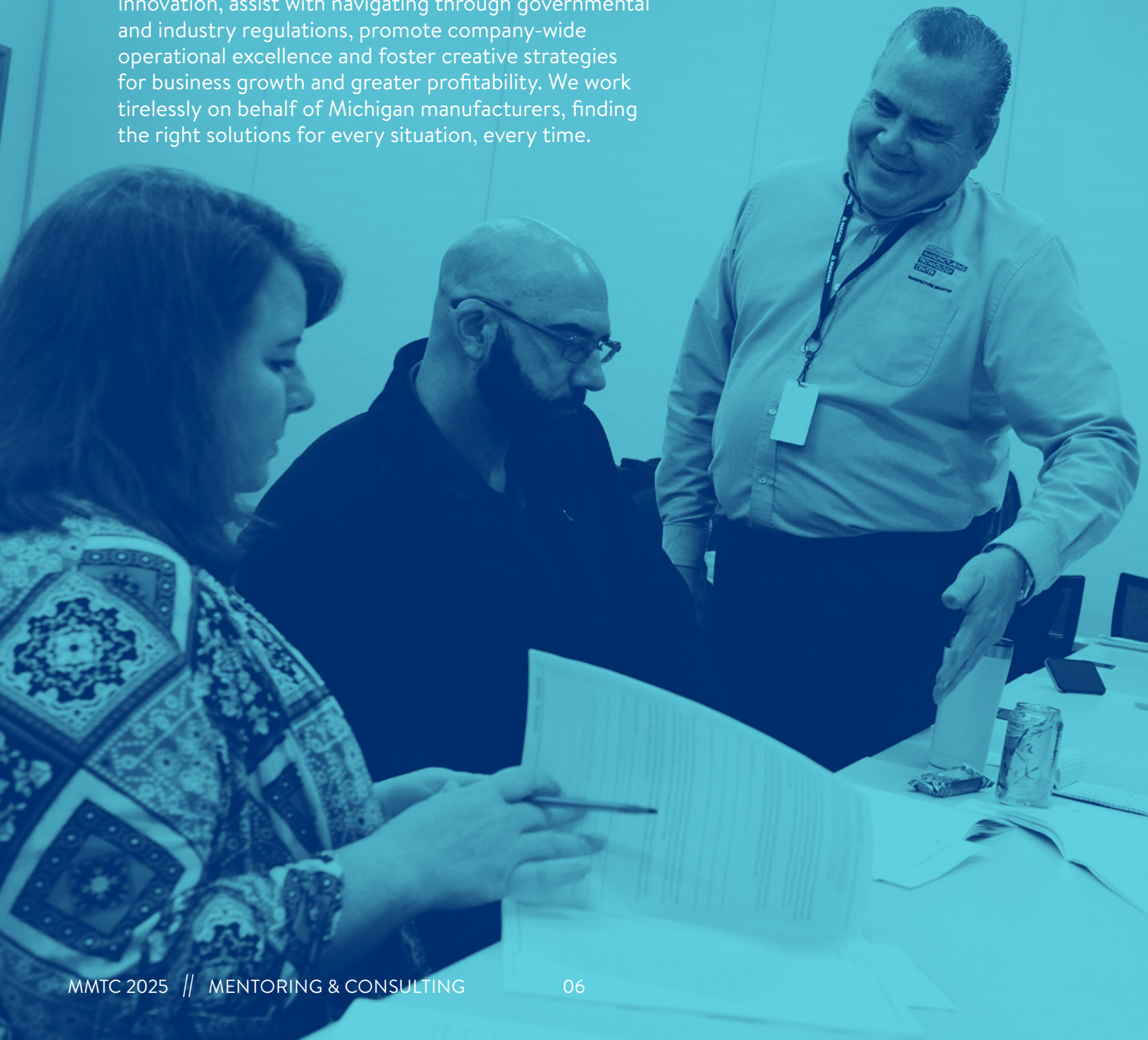
MDRC provides Michigan manufacturers with 500 employees or less with **up to \$75K in cost-share funds for technical assistance projects for qualified companies**, a company assessment, and a developed opportunity plan. Companies must demonstrate a critical potential to address a particular need in the defense energy storage and battery supply chain.

For questions on how to get started or for information about eligibility, contact us at [the-center.org](https://the-center.org).



# MENTORING & CONSULTING

MMTC offers personalized consulting and mentoring services that enable Michigan manufacturers to operate smarter, compete and prosper. We develop more effective business leaders, drive product and process innovation, assist with navigating through governmental and industry regulations, promote company-wide operational excellence and foster creative strategies for business growth and greater profitability. We work tirelessly on behalf of Michigan manufacturers, finding the right solutions for every situation, every time.



# LEADERSHIP

## LEADERSHIP MENTORING

Leadership mentoring is a collaborative relationship between MMTC experts and seasoned or emerging leaders in organizations to provide skills and knowledge in many areas, such as:

- Communication
- Adaptability
- Accountability
- Empathy
- Change Management
- Problem Solving
- Influence
- Relationship Building
- Emotional Intelligence
- Critical Thinking

These skills can be used to create a culture of teamwork, trust, and transparency in an effort to engage employees to do and be their best. Once the needs of an organization are discovered, training and mentoring can be provided in any or all of the skills listed above to a single person or group of leaders.

## BUSINESS TRANSITION STRATEGIES & SUCCESSION DEVELOPMENT

Whether planned or unplanned, it is a fact that all business owners and/or key employees will leave at some point in the company's lifespan. When it happens, you need a plan of action to keep your business afloat during the transition. This program is designed to ensure business continuity in the event of an unexpected departure of a leader or key management member. MMTC's succession development program begins with the identification of both the business owner's personal goals and their goals for the future of the business.

This will allow for a better understanding of the needs and expectations for future income, their future involvement with the business, investment required, the legacy they want to leave, and the overall values of the business owner. Through the use of a custom transition strategy assessment tool and personal interviews, MMTC will create a clear vision of the business owner's plan for the future and help develop a strategic plan to achieve it.

## LEADERSHIP-IN-ACTION: STRATEGIC BUSINESS SOLUTIONS

Leadership-in-Action (LIA) is an intensive three-day, hands-on program designed to align your leadership and management team around critical business goals and objectives. This highly interactive engagement begins with a comprehensive Business and Organization Assessment, providing a detailed comparison of your company's performance metrics against industry standards. This service focuses on enhancing organizational performance by optimizing financial metrics, streamlining business processes, and refining leadership strategies. Practical exercises help participants apply concepts to their own organizations and culminate in an actionable improvement plan.

## PROJECT MANAGEMENT MENTORING

All manufacturers execute projects of various sizes, durations and complexities. Typical project management 'problems' involve finishing late, spending too much, poor communication, frustration, scope creep and poor risk planning. While these issues are perceived to be 'problems', they are typically more symptomatic of not having a project management methodology. MMTC's Project Management Mentoring experts can help with:

- Scoping projects
- Project charters
- Stakeholder management plans
- Communication plans
- Work breakdown structures to ensure a logical schedule
- Budgeting
- Risk management registers
- Project key performance indicators (KPIs)

## SMALL BUSINESS OPERATIONS PLANNING

Small Business Operations Planning is designed to transform your company into a highly efficient and effective operation. Through a combination of hands-on training, interactive discussions, and a comprehensive Business and Organization Assessment, this program aligns your leadership and management team with key business goals. Participants will engage in analyzing financial metrics, refining business processes, and enhancing leadership capabilities—all tailored to your organization's unique needs. The workshop culminates in the creation of a tailored, executable Improvement Plan, grounded in data and best practices, that serves as a strategic roadmap for achieving measurable performance improvements over the next 12-18 months.

# LEAN MANUFACTURING

## LEAN MENTORING

Lean Mentoring is designed to help organizations achieve their strategic business goals through the successful application of Lean principles. This mentorship provides management with the skills, knowledge, and attitudes necessary to develop actionable plans that meet improvement targets. By working closely with Lean Champions, Lean mentors guide the transformation to a Lean culture, ensuring Lean tools and techniques are effectively applied across the business. From reducing lead times and process cycle times to re-engineering work areas to eliminate waste, this program equips organizations with the tools and expertise needed for continuous improvement and long-term success.

## STRATEGIC PLANNING & DEPLOYMENT (HOSHIN)

Adopt a disciplined planning approach to minimize the high costs and waste associated with poor planning. Utilize the Lean Methods Group approach, which helps assess your organization's current state, define your goals, and manage progress with clear visibility, engagement, and accountability. These tools offer a structured way to respond to strategic opportunities and market changes, foster an environment of focused, transparent communication, provide visibility into key metrics, and support better decision-making while reducing rework and waste.

## LEAN OFFICE KAIZEN

Executing a Lean Office Kaizen empowers organizations to streamline their administrative and non-production processes, which make up 70 percent of the costs related to meeting customer demand. Through hands-on activities, participants will gain a deep understanding of Kaizen principles and will analyze existing processes to uncover inefficiencies and areas for improvement. By the end, participants will have developed the skills to lead successful Lean Office Kaizen events within their organizations, fostering a culture of continuous improvement and operational excellence.

## LEAN KAIZEN EVENT

Do you want to increase productivity and quality, lower costs, and decrease delivery times? Are you interested in reducing risk and improving employee morale? It is time to introduce your company to the concept of Kaizen. One of the many tools under the umbrella of Lean manufacturing, Kaizen has been successful in helping manufacturers improve, identify, and implement changes. A Kaizen is goal driven and includes a facilitator, team members from support areas in the company, and management. Kaizen events are most successful when they are part of a larger overall program of continuous improvement. A typical Kaizen event consists of five days of focused team activity.

## VALUE STREAM MAPPING INSTRUCTION AND DEPLOYMENT PLAN

Enhance your understanding of Lean production systems through Value-Stream Mapping (VSM). Through a personalized approach, participants will learn to "see" their manufacturing processes with a Lean perspective, enabling them to redesign workflows to maximize customer value while minimizing costs and waste. VSM helps clients see manufacturing processes as a Lean production system. By the end, companies will be equipped to collect accurate data, design VSMs, identify areas for Kaizen projects, develop prioritized improvement plans to drive continuous operational excellence, and create a deployment plan to ensure that the future state becomes a reality.





# INDUSTRY 4.0 / CYBERSECURITY

## INDUSTRY 4.0 MENTORING

Large technology investments can feel like a daunting task for manufacturers. Lack of knowledge or in-house expertise can create a barrier to technology adoption. Using our extensive knowledge of information technology, automation, controls systems, robotics and plant operations, we can assist with technology implementation projects and data collection with MES/ERP adoption. Successfully integrate technology and upskill internal employees, so they are ready to take on these types of projects in the future.

## ON-SITE TECHNOLOGY TRIAL AND TRAINING

Phase one begins with a feasibility study, which creates a test environment for technology using client parts and data. Phase two includes Industry 4.0 mentoring to upskill your workforce to fully utilize the technology. The output of these projects will be live impact data collection and potential technology implementation ROI. MMTC can assist with:

- Robot/Cobot rental and training, proof of concept, simple machine integrations
- Machine monitoring, OEE machine retrofit
- Digital work instruction
- Data collection and visualization

## INFORMATION SYSTEM SELECTION

Starting with a data stream map that would document the entire value stream and information flow, identify what systems are currently in use and what business critical data need to be incorporated into the information system. This engagement outputs information that helps form the basis of specification to provide to vendors. We can then enter another project phase and help with vendor selection and quoting.

## TECHNOLOGY AND VENDOR SELECTION

MMTC can assist manufacturers with writing project statement of work, determine ROI, select vendors and review quotes. Find a technology solution that meets the needs of your business.

## CYBERSECURITY MENTORING

Cyber-attacks are becoming increasingly sophisticated and frequent, with a reported 4,000 attacks on small businesses each day. Through a two-phase approach, MMTC experts help companies analyze their existing technology, review and minimize the risks posed to their information systems, and develop a framework for secure business operations into the future.

## TECHNOLOGY OPPORTUNITY

## ASSESSMENT

Interested in adopting AI or any other Industry 4.0 technology at your facility? MMTC's technology experts are here to help you every step of the way. Start the process with our **free** Technology Opportunity Assessment to find the right fit for you. MMTC experts work with you in a hands-on, personalized capacity to enable your company to identify technologies that will provide maximum improvements and return on investment (ROI). The Technology Opportunity Assessment includes:

- 1. Two Hours. 40 questions. No Cost.** Questions relate to the Voice of Business/Voice of Customer, systems such as documented processes or standard work procedures, and technology including any existing applications of automation in your facility.
- 2. Assessment Summary Report.** Based on the findings from the questionnaire and observations made during the assessment, we generate a summary report outlining opportunities for business improvement and increased efficiency.
- 3. Personalized Implementation Plan.** A unique and personalized technology implementation plan is created, addressing needs and ROI opportunities.
- 4. Moving forward.** MMTC can help establish an adoption strategy, scope the project, align suppliers with vetted resources and manage implementations to ensure business and customer needs are met.



LEARN MORE

# QUALITY MANAGEMENT

## QUALITY MENTORING

Classes in specific disciplines are necessary, but the real test of skill is to apply the knowledge to individual quality management systems through onsite mentoring. We have registered Exemplar Global auditors that can apply decades of experience to find solutions for your QMS applications.

## AS9100 ORGANIZATIONAL IMPLEMENTATION

Is your company in the Aviation, Space, and Defense industries and transitioning from Rev C, another standard like ISO 9001, or starting fresh with a Quality Management System (QMS)? Learn about the aerospace additions to ISO 9001 and how to develop tailored policies, procedures, and work instructions. This program emphasizes hands-on learning, including process mapping, risk-based thinking, and customer-oriented processes (COPs). Each participating company receives a complete Policy Manual template, procedure templates, and compliance reference documents, providing all the tools needed for a successful AS9100D implementation.

## AS9100D TRANSITION

Transition your organization seamlessly from ISO 9001:2015 to AS9100D. Participants will begin with an in-depth overview of AS9100D and a review of your company's current quality policy and objectives. Each session builds progressively, and your team will work hands-on to make real-time updates to your documentation to align with AS9100D. Key topics include counterfeit prevention, foreign object detection, and customer requirement roll-downs. By the end, participants will have developed a fully documented Quality Management System, comprehensive Transition Implementation Plan, and will be prepared for a successful Stage 1 audit.

## IATF 16949:2016 ORGANIZATIONAL IMPLEMENTATION

Equip your team with the knowledge and skills needed to develop, implement, and maintain an effective Quality Management System (QMS) aligned with IATF 16949 and ISO 9001:2015 requirements. Topics covered include high-level-structure, process-based quality management, risk-based thinking, continuous improvement, and customer-oriented process development. Attendees will use real-world scenarios to create a quality policy, establish measurable objectives, and implement robust documentation and control processes. Participants will leave with a complete guide to documented information, a custom Policy Manual template, and the expertise to create an integrated QMS that aligns with their business goals. Additionally, up to three participants per company will receive hands-on internal auditor training.

## ISO 14001:2015 ORGANIZATIONAL IMPLEMENTATION

Ideal for organizations seeking to implement an Environmental Management System (EMS) aligned with ISO 14001:2015 standards, this customized program offers both foundational EMS development and in-depth internal auditor training. Participants will engage in seven interactive sessions that cover topics from the new high-level structure of ISO 14001:2015 to developing environmental policies and objectives. Participants will also receive hands-on internal auditor training, ensuring they are prepared to conduct thorough audits and ensure the success of their EMS.

## ISO 9001:2015 ORGANIZATIONAL IMPLEMENTATION

This comprehensive training begins with an introduction to ISO 9001:2015, including its High-Level Structure (HLS) and the foundational principles of process-based quality management. Each session progressively covers key clauses, from developing a Quality Policy and measurable objectives to managing documentation, understanding risk-based thinking, and developing customer-oriented processes (COPs), plus topics including nonconformity management, corrective actions, and continual improvement. Participants will make real-time updates to existing QMS documentation, culminating in a fully developed QMS that aligns with your company's business plan.

Additionally, companies will receive a copy of the latest ISO 9001:2015 standard and sample templates for procedures, processes, and forms, and up to three participants per company will receive hands-on internal auditor training.

## ISO 9001:2015 ORGANIZATIONAL IMPLEMENTATION SUPPORT

Dive deep into successfully implementing and maintaining an ISO 9001:2015-based Quality Management System (QMS). Participants will benefit from an in-depth gap analysis, which evaluates current practices against ISO 9001 requirements, highlights existing strengths, and identifies missing or ineffective elements. Our team also provides guidance on documentation creation and management, quality management system development, internal audit program management, and the application of "8D" corrective actions. Gain the expertise needed to achieve and sustain ISO 9001 compliance.

## QMS INTERNAL AUDIT (ISO 9001, AS9100, IATF 16949, OR ISO 13485)

We provide engaging and detailed mentoring for Internal Auditing in the following quality management system (QMS) disciplines:

- ISO 9001 - Base QMS for general manufacturing
- IATF 16949 - Automotive required internal auditing, includes ISO 19011 instruction as well as a Core Tools audit
- ISO 14001 - Environmental QMS
- AS 9100D - Aerospace QMS
- ISO 13485 - Medical devices

MMTC's experienced auditors share QMS implementations from many industries, which highlight details of how to apply the criteria to each individual system. We have a proven ability to install any QMS from the ground up, so if you have NO QMS, we can help with that as well.

## ENVIRONMENTAL MENTORING

Environmental quality can be used differently depending on the context. The first way could be an application of an Environmental Management System (EMS) to an existing Quality Management System (QMS). However, it could also mean maintaining the quality of the environment, which is the function of ISO 14001. Many companies have a focus on environmental quality to meet customer mandates associated with ISO 14001. MMTC can help with both! Our experts can execute gap assessments to identify where a company stands relative to achieving the standard or achieving compliance.

## QUALITY MANAGEMENT

### GAP ASSESSMENT

A Quality Management System (QMS) Gap Assessment is a critical process for organizations integrating an additional QMS framework, such as ISO 9001, IATF 16949, or AS9100. This assessment identifies gaps between the existing system and the new QMS requirements, ensuring seamless integration while maintaining compliance and operational efficiency. Our QMS Gap Assessment product provides a structured evaluation, pinpointing areas for improvement, reducing redundancy, and streamlining documentation. With detailed reporting and actionable recommendations, businesses can confidently align their processes, enhance quality performance, and achieve certification readiness with minimal disruption.

## COSTING

### COST MENTORING

Start addressing a wide range of costing challenges, from analyzing current activities and processes to pinpointing and reducing wasteful expenses. Through targeted mentorship, participants will master the skills to identify and quantify cost drivers, evaluate product and customer profitability, and discover areas ripe for cost reduction. Learn to map out key processes to reveal inefficiencies, develop actionable improvement plans, and implement metrics to track your progress towards financial goals.

### COST IDENTIFICATION AND MANAGEMENT

An MMTC Costing Expert will work closely with your team, touring your facility, and crafting a customized cost system designed to reflect the true costs of your organizational activities. This mentoring equips all manufacturers with the knowledge to determine precise costs for your products and services through detailed analysis of operational data. You'll gain proficiency in maintaining and updating your costing model, and conducting insightful "What if?" analyses to adjust for cost, resource, and utilization changes.

## FOOD PROCESSING

### FOOD PROCESSING MENTORING

Leveraging years of experience in both food safety and process improvement practices, our experts provide a unique opportunity to assist food processors in scaling up production while keeping food safety practices at the forefront. The challenges facing the food industry are no different than those facing other industries: staffing shortages, greater demands from customers, supply chain constraints, confusion about how to implement technology, and the need to do more with less, are real. The countless Lean tools that have been successfully implemented in traditional manufacturing are applicable throughout the food industry. MMTC's expertise provides Michigan's food processors with the necessary resources to grow and compete.

## SIX SIGMA

### SIX SIGMA MENTORING

Unlock the full potential of your Six Sigma initiatives with MMTC's comprehensive Six Sigma Mentoring. This interactive experience offers tailored guidance to help streamline projects and enhance your leadership strategies. Our mentors will provide targeted assistance with each phase of Six Sigma, from tool selection and application to advanced techniques like design of experiments and statistical analysis using Minitab. Whether you're facing specific challenges or seeking strategic advice, our visit will provide actionable solutions and a robust plan to drive your Six Sigma projects toward completion.



## MARKET INTELLIGENCE

### MARKET INTELLIGENCE MENTORING

Strategic decisions can be challenging and in today's environment, businesses can be positively or negatively impacted by internal and external forces. Market research mentoring is designed to augment sales, marketing, business development or other company personnel and provides an independent, unbiased mentor. MMTC provides support and insight to help navigate business decisions related to:

- Optimizing new product launches
- Accessing adjacent markets
- Analyzing competitors
- Evaluating voice of the customer
- Anticipating market disruptions

### ASSESS MARKET(S) FOR NEW PRODUCTS

Help your sales and marketing professionals validate the viability of a new product or capability, optimize its market entry, and make informed investment decisions. Collaborate with MMTC's expert research team to delve into critical aspects of market assessment, from identifying the most promising markets to understanding key competitive dynamics. You'll learn how to scope and conduct targeted research, interpret quantitative results, and translate these insights into strategic action plans. By the end, you'll be equipped to pinpoint the ideal markets for your new offering, craft a detailed market profile, and develop a robust launch strategy that maximizes your product's impact.

### LIST, PRIORITIZE & PRE-QUALIFY PROSPECTS

Transform your approach to lead generation and market strategy with our dynamic Market Research Mastery. Dive into effective research techniques that help you accurately identify prospects and high-value leads, scope and execute projects, and derive actionable insights from quantitative data. Gain the skills necessary to turn research findings into immediate action plans that bring clarity and precision to your lead generation and marketing strategies.

### NARROW 10 MARKETS TO 3 BASED ON CRITERIA

Help save time, reduce risk, and maximize your growth opportunities by identifying and investing in the most advantageous markets for your business. Transform a broad list of up to 10 potential markets into a focused selection of the top 3 "best fit" markets for your company. Our expert team at MMTC will guide you through a comprehensive research process using your specific criteria and our industry-standard benchmarks to assess market size, growth potential, competitive landscape, and entry barriers. By the end, you'll gain the skills to scope and execute a market research project effectively, interpret quantitative data with precision, and develop actionable, strategic plans that align with your company's objectives.

## SAFETY

### HEALTH & SAFETY MANAGEMENT MENTORING

Whether manufacturers are in search of a better understanding of OSHA's regulatory requirements to ensure compliance or need assistance with OSHA-based reporting, MMTC's safety experts can help. MMTC provides customized safety program services addressing:

- Forklift
- LOTO
- Overhead Crane
- Aerial Lift
- Flagging and Road Safety
- Bloodborne Pathogens
- Fall Protection
- Hazard Communication
- Emergency Action Plans



# CLIENT SUCCESS SPOTLIGHT

## SOULBRAIN MI, INC.

### ACHIEVING SUCCESS & SUSTAINABILITY WITH MMTC

Soulbrain MI, Inc. is a full production and research and development facility manufacturing electrolyte for lithium-ion batteries. For more than 30 years, soulbrain MI's parent company in South Korea has developed, manufactured and supplied core materials to the high-tech industry.

#### CHALLENGE

With a goal to help create a more sustainable and environmentally friendly future, soulbrain MI knew investing in an Environmental Management System (EMS) was necessary. In addition, a major customer of theirs was soon requiring ISO 14001:2015 certification. To ensure their success, meet customer requirements, and reinforce their commitment to quality, soulbrain MI wanted to pursue ISO 14001:2015 certification to strengthen and grow their business.

#### SOLUTION

For assistance with integrating the ISO 14001:2015 standard into their existing Quality Management System (QMS), soulbrain MI turned to the Michigan Manufacturing Technology Center (MMTC). Initially, soulbrain MI staff engaged in two sessions of MMTC's Building a Successful ISO 14001:2015 Program course. However, they still needed additional training and skills development to successfully conduct and pass an ISO 14001:2015 Internal Audit.

By conducting the ISO 14001:2015 Internal Audit, MMTC enabled soulbrain MI to see where gaps existed within their current EMS. It also allowed them to better understand the areas that needed improvement and determine the resources needed to ensure their EMS is maintained to ISO 14001:2015 requirements. This helped soulbrain MI prepare for, and pass, their upcoming third-party certification audit.

#### RESULTS

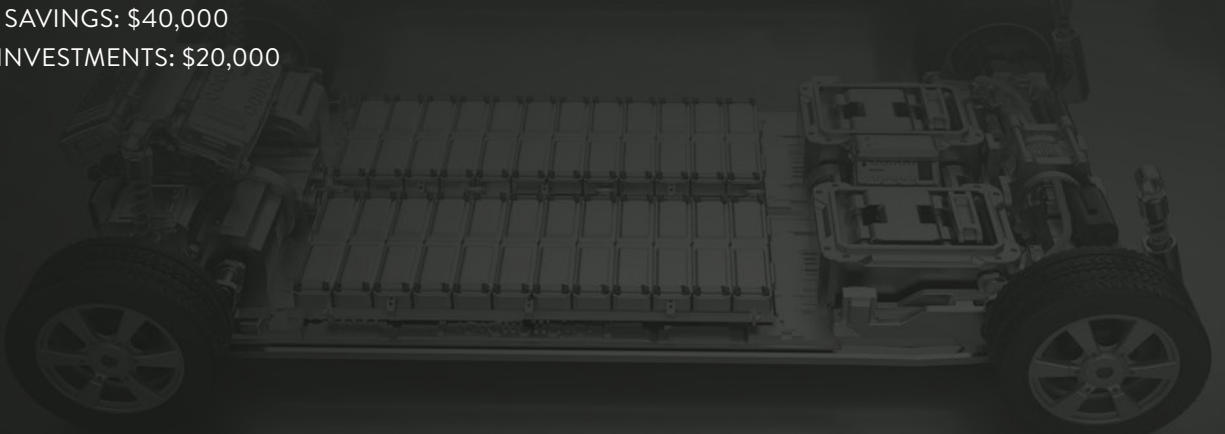
- PASSED THEIR ISO 14001:2015 AUDIT AND ACHIEVED CERTIFICATION
- RETAINED SALES: \$25,000,000
- COST SAVINGS: \$40,000
- NEW INVESTMENTS: \$20,000



*The training at MMTC helped us identify the areas where we were lacking the necessary procedures and documentation to meet the requirements of the ISO 14001:2015 standard. The additional consulting we received helped us fill in the gaps in the EMS we were developing so that we were able pass our third party certification audit on the first try.*



Eric Bieth,  
Quality Manager



# COURSES

Our instructors have spent decades gaining expertise in engineering, business development, cybersecurity, leadership, workforce development, quality management, supply chain, Lean and Six Sigma, and more. They have worked from the top floor to the shop floor in a wide range of manufacturing sectors, from automotive and mobility to food processing and healthcare, and they are ready to bring the right solutions to manufacturers' most challenging scenarios.

We can help manufacturers develop a realistic training plan according to their needs and goals. **View our upcoming course schedule at [The-Center.org](https://www.the-center.org).**



= CERTIFICATE-ELIGIBLE COURSE // PRICING IS SUBJECT TO CHANGE.



# LEADERSHIP & WORKFORCE

## INTRODUCTION TO SPREADSHEET MANAGEMENT

Focus on the fundamentals of Microsoft Excel. Following along with the instructor, students will explore the capabilities of Excel. Example datasets, along with hands-on data collection, are used to generate data. A final exercise challenges the participant to demonstrate what they learned by creating a control chart template they can utilize at their organization for process improvement.

ONSITE ONLY | 1/2 day | Min. of 8 participants

COST ..... \$495/Person

## ADVANCED SPREADSHEET MANAGEMENT

Do you want to take your Microsoft Excel skills to a new level? Explore the advanced capabilities of Excel with MMTC. It's time to work more effectively and efficiently with Excel. *Course Prerequisites: Introduction to Spreadsheet Management (or equivalent experience)*

ONSITE ONLY | 1/2 day | Min. of 8 participants

COST ..... \$495/Person

## EMERGING LEADERS IN MANUFACTURING CERTIFICATE

Provide your staff with the skills needed for success within the world of manufacturing. This five-week, five-session program, taught in collaboration with Schoolcraft College, is open to people new to manufacturing and those who are looking to grow. Topics include essential skills for leaders, quality management, Lean manufacturing, Industry 4.0, and engineering.

5 days of classes

COST ..... \$1,995/Person

## FINANCE FOR THE NON-FINANCIAL MANAGER

This class exposes non-financial managers to financial concepts relevant to managing any type of business, with an additional focus on manufacturing. The key concept is that managers make daily decisions that impact the financial health of the business, so they need to understand the basics of financial management.

ONSITE ONLY | 1 day | Min. of 4 participants

COST ..... \$495/Person

## VIRTUAL: FINANCE FOR THE NON-FINANCIAL MANAGER

Introduce non-financial managers to financial concepts relevant to managing any type of business, with an additional focus on manufacturing. Managers make daily decisions that impact the financial health of the business, so they need to understand the basics of financial management.

1/2 day of class

COST ..... \$495/Person

## LEADING SUCCESSFUL CHANGE

Whether it is a new system, product, employee, location, or idea, change is a part of business. How well a change is implemented will have impacts on the organization, culture, and future attempts at change within the business. This class will help organizations better understand and effectively manage change.

1 day of class | If onsite: min. of 6 participants

COST ..... \$495/Person

## PRACTICAL APPROACH TO PROJECT MANAGEMENT (CEU Credits: 1.4)

Focus on the discipline of initiating, planning, executing, controlling and closing the work of a team to achieve specific goals and meet specific success criteria. After attending this course, you will be able to understand the project manager's role in supporting strategic objectives that contribute to the bottom line. Gain leadership skills and business intelligence tools and techniques required to meet project requirements.

2 days of classes | If onsite: min. of 3 participants

COST ..... \$1,495/Person

## VIRTUAL: PROJECT MANAGEMENT FUNDAMENTALS

Learn the discipline of initiating, planning, executing, controlling and closing the work of a team to achieve specific goals and meet specific success criteria. Training will focus on how a project is a temporary endeavor designed to produce a unique product, service or result with a defined beginning and end undertaken to meet unique goals and objectives.

(2) 1/2 days of classes

COST ..... \$995/Person

## MANUFACTURING SKILLS DEVELOPMENT (CEU Credits: 1.4 | PDCs: 14)

Designed for those who are new to manufacturing, this class provides a foundational understanding of the processes, approach and culture needed to run an effective and efficient operation. Topics include:

**Quality Management Systems** – Offers an introduction to the systems and processes necessary to deliver a conforming product on time while controlling variation in the process.

**Problem Solving Skills** – Addresses the various tools and techniques available for problem solving in the manufacturing environment, focusing on the ability to identify the problem, isolate the root cause and document the entire process.

**Lean Manufacturing** – Gain an understanding of Lean principles and techniques and how they can be applied to maximize customer value, minimize waste and reduce cost. Get to know the eight types of waste that exist in every organization.

**Culture & Motivation** – Learn effective operational communication, motivational techniques and conflict management.

2 days of classes | If onsite: min. of 6 participants

COST ..... \$995/Person



# LEADERSHIP & WORKFORCE



## SUPERVISOR SKILLS 1.0 (CEU Credits: 2.1)

Do you have an employee with leadership potential or a newly promoted supervisor and want to give them practical management training? Gain the knowledge and skills needed to thrive in today's management environment. Learn how to identify various leadership styles, different behavioral characteristics and how to relate to each, communication barriers and how to overcome them, and more.

3 days of classes | If onsite: min. of 6 participants

COST .....\$1,495/Person



## SUPERVISOR SKILLS 2.0 (CEU Credits: 2.1)

Good leadership is not just characterized by the ability to motivate a group toward a common goal—it's the ability to be someone people want to follow. This course further equips participants with the skills needed to become effective leaders. Topics covered include Power of Influence, Crucial Accountability and Conversations, Navigating Stressful Situations, 6 Principles of Influence, 7E's of Leadership, and more. *Prerequisite: MMTC's Supervisor Skills 1.0 (CEU Credits: 2.1) course.*

3 days of classes | If onsite: min. of 6 participants

COST .....\$1,495/Person



## SUPERVISOR SKILLS 3.0 (CEU Credits: 2.1)

Take your leadership skills to the next level and become a more effective leader. Focused on building upon the knowledge and skills presented in MMTC's Supervisor Skills 1.0 & 2.0 courses, this class covers emotional intelligence, self-awareness, social awareness, relationship management and critical thinking. *Prerequisite: MMTC's Supervisor Skills 2.0 (CEU Credits: 2.1) course.*

3 days of classes | If onsite: min. of 6 participants

COST .....\$1,495/Person

## BUILDING BETTER TEAMS

This activity-based training will provide participants an understanding of the importance of teamwork. Through a variety of activities, participants experience challenges teams face. Team members will also learn how to analyze and discuss behavioral characteristics of people. These individual attributes contribute to mutual trust, allowing teams to learn from each other by sharing information, skills and experiences.

ONSITE ONLY | 1 day | Min. of 6 participants

COST .....\$495/Person



## VIRTUAL: FRONTLINE LEADER

Provide frontline leaders the tools to improve communication, engagement, and productivity of frontline workers. Leaders will become more competent and confident resulting in increased employee engagement, better productivity, higher employee satisfaction, and reduced turnover. Using our exclusive Active Learning Model, participants will learn through assessment, practice, application, and reflection.

(4) 1/2 days of classes

COST .....\$1,100/Person

# TOOLING U-SME

## TOOLING U-SME COLLABORATIVE TRAINING PROGRAMS

In our commitment to strengthen Michigan's manufacturing industry, MMTC has partnered with Tooling U-SME to offer comprehensive and interactive professional development and workforce training solutions. Whether you are new to manufacturing or a seasoned worker, all can benefit from the various virtual programs offered. From foundational learning in measurement and math to advanced concepts in technology and design, the MMTC/Tooling U-SME partnership provides results-driven training solutions for in-demand job roles. These online programs are self-paced, typically taking 60 minutes to complete individual classes.

**ToolingU Subscription (10-Pack, 365 Day Subscription) - \$430**

**ToolingU Subscription (25-Pack Day, 365 Day Subscription) - \$745**

**ToolingU Subscription (90-Day, All Access Subscription) - \$375**

**ToolingU Subscription (180-Day, All Access Subscription) - \$635**

**ToolingU Subscription (365-Day, All Access Subscription) - \$1,015**

*For more information, contact your Business Solutions Manager or email [inquiry@the-center.org](mailto:inquiry@the-center.org).*

7,714

INDIVIDUALS  
WHO COMPLETED  
TRAINING IN THE  
LAST YEAR

# LEAN PRINCIPLES & TECHNIQUES

## 5S TRAINING & APPLICATION

The 5S program for the shop floor is a good starting point for a Lean manufacturing improvement activity. Participants will brainstorm methods for removing additional constraints from the manufacturing process in a specific model area within your organization. Learn the basic principles of 5S and successful implementation, the importance of an effective work environment, how to sustain change, and how to overcome issues associated with 5S.

ONSITE ONLY | 2 days | Min. of 5 participants

COST ..... \$995/Person

ADD AN EXTRA APPLICATION DAY FOR \$495/PERSON

## 5S & VISUAL MANAGEMENT

Over time, most workplaces become cluttered with outdated information and materials kept “just in case it’s needed.” This course provides the tools needed to clear the clutter and create a world-class visual workplace where there is a place for everything. Learn how to successfully transform a factory into a well-organized operation where many messages concerning product quality, productivity, schedule and safety are accurately delivered.

1/2 day of class | If onsite: min. of 4 participants

COST ..... \$495/Person

## A3 PROBLEM SOLVING

Use problem-solving tools to assist in the continuous improvement process with emphasis on creating and implementing a Lean Business Strategy. Gain the knowledge to confidently measure and improve your processes through data-driven decision making. An exercise in understanding and creating an A3 report is included.

1/2 day of class | If onsite: min. of 4 participants

COST ..... \$495/Person

## A3 PROBLEM SOLVING TRAINING & APPLICATION

Gain an understanding of A3 Thinking and how to apply the tools to real problems within your organization. Learn how to explain the DMAIC methodology, apply a structured approach to problem-solving using the A3 format, identify and verify root causes, build a complete project charter, and more.

ONSITE ONLY | 2 days | Min. of 4 participants

COST ..... \$995/Person

ADD AN EXTRA APPLICATION DAY FOR \$495/PERSON

## ADVANCED PROBLEM SOLVING: LEAN SIX SIGMA YELLOW BELT (CEU Credits: 2.1 | PDCs: 21)

Lean Six Sigma Yellow Belt (LSSYB) training develops the skills of the professional who participates as a supporting team member in a variety of Six Sigma projects. Upon class completion (no project required), a LSSYB will understand the broad aspects and foundational elements of Lean Six Sigma methodology. Learn to implement, perform, interpret and apply Lean Six Sigma principles in a skilled, yet limited/supportive, context.

3 days of classes | If onsite: min. of 6 participants

COST ..... \$1,495/Person

## KAIZEN PRACTITIONER

A typical Kaizen event for each model area/product group consists of five days of focused team activity. Participants learn the benefits, characteristics, building blocks and key performance measures as they facilitate a successful Kaizen event in their own organization. Kaizens available include 5S, Single Minute Exchange of Dies, Total Productive Maintenance and Kanban. Objectives include:

- Understand Kaizen and basic steps for success
- Document plant layout with Value Stream Mapping
- Document strengths and opportunities in model area
- Apply Lean tools and techniques where applicable
- Balance the workload and restructure the work area to eliminate waste

ONSITE ONLY | 5 days | Min. of 5 participants

COST ..... \$1,995/Person

## LEAN APPLICATIONS WORKFORCE TRAINING (CEU Credits: 3.5)

Get acquainted with the Lean tools used to help identify and eliminate waste in a manufacturing environment. Training is designed to promote a sustainable continuous improvement effort and ensure positive outcomes in the long-term strategic deployment of Lean manufacturing practices.

5 days of classes | If onsite: min. of 6 participants

COST ..... \$1,995/Person

## LEAN OFFICE CHAMPION (CEU Credits: 2.1 | PDCs: 21)

Apply Lean principles beyond the manufacturing floor. Typically 70% of labor costs are attributed to above-the-shop-floor activities and support operations such as quoting, accounting, sales and engineering. This training offers a comprehensive hands-on approach to teach team leaders how to identify opportunities for improvement through reduction in TIME conducting transactional activities.

3 days of classes | If onsite: min. of 6 participants

COST ..... \$1,495/Person

## LEAN SIMULATION

Learn how Lean can be applied to an organization to maximize customer value, minimize waste, and reduce costs through workplace organization and visual controls, cellular manufacturing, quality at the source and pull scheduling. Lean factory simulation gives participants an understanding of how Lean principles, when effectively applied, can positively impact their company.

1 day of class | If onsite: min. of 10 participants

COST ..... \$495/Person





# LEAN PRINCIPLES & TECHNIQUES



## LEAN SIX SIGMA GREEN BELT

(CEU Credits: 5.6)

Lean Six Sigma Green Belt (LSSGB) training covers the application of established Lean and Six Sigma techniques to remove wastes, improve operational speed, lower costs and increase customer satisfaction. This certification focuses on improved quality and accuracy, minimized cost and variation, on-time delivery and optimized operational speed; all which enable organizations to become more efficient and profitable producers. Participants receive a LSSGB certification upon submission of a Lean Six Sigma project report that is reviewed and approved by our Six Sigma Master Black Belt.

*\* A project sponsor is strongly recommended and is expected to attend the first session.*

8 days of classes | If onsite: min. of 6 participants

COST ..... \$4,495/Person



## MISTAKE-PROOFING

Understand the benefits of building in quality at the source. Implement methods or devices into the manufacturing process instead of inspection only at the end of the process. Best practice examples of how companies prevent errors or defects are introduced. A hands-on factory simulation is included.

1/2 day of class | If onsite: min. of 4 participants

COST ..... \$495/Person



## MISTAKE-PROOFING TRAINING & APPLICATION

Gain a comprehensive understanding of error-proofing principles and an opportunity to directly apply these concepts in your own work environment through instruction, coaching and hands-on execution.

ONSITE ONLY | 2 days | Min. of 4 participants

COST ..... \$995/Person

ADD AN EXTRA APPLICATION DAY FOR \$495/PERSON



## SET-UP TIME REDUCTION USING SMED/QCO

This course focuses on reducing set-up times in order to increase flexibility. Single Minute Exchange of Dies (SMED) refers to the theory and techniques for performing set-up operations in less than 10 minutes. Participants will learn how inexpensive techniques can be implemented to achieve quick changeovers (QCO), which can improve production and reduce waste.

ONSITE ONLY | 2 days | Min. of 5 participants

COST ..... \$995/Person

ADD AN EXTRA APPLICATION DAY FOR \$495/PERSON



## STANDARD WORK

Standard Work is a set of procedures for each operational process that documents the most effective, balanced combination of people, machines, materials and space to meet customer demand. Without Standard Work, processes will change for operational convenience, which are often not in the best interest of the organization or customer.

1/2 day of class | If onsite: min. of 4 participants

COST ..... \$495/Person



## STANDARD WORK TRAINING & APPLICATION

Join an immersive, hands-on experience designed to help teams understand, document, and implement standardized work practices to eliminate variation and improve operational performance. At the end of training, participants will learn to identify and prioritize processes requiring documentation, collect time samples, and balance workloads. Participants will also gain skills in creating clear and accurate standard work documents, collaborating across functions to encourage adoption, and implementing internal audits to ensure adherence.

ONSITE ONLY | 2 days | Min. of 4 participants

COST ..... \$995/Person

ADD AN EXTRA APPLICATION DAY FOR \$495/PERSON



## TOTAL PRODUCTIVE MAINTENANCE (TPM) APPLICATION TRAINING

Teach operations the philosophy and skills necessary to transform productive maintenance activities from a “cost burden” to a “cost savings.” At the end of instruction, clients should understand:

- The principles and benefits of TPM and autonomous maintenance
- Calculate Overall Equipment Effectiveness
- The role maintenance provides in continuous improvement
- Improvements made at the shop level can dramatically improve overall company performance

ONSITE ONLY | 2 days | Min. of 5 participants

COST ..... \$995/Person

ADD AN EXTRA APPLICATION DAY FOR \$495/PERSON



## TOTAL PRODUCTIVE MAINTENANCE/ QUICK CHANGEOVER

Total Productive Maintenance is a company-wide effort to improve equipment performance, which leads to higher productivity, better quality and increased profits. Participants learn how to calculate and use Overall Equipment Effectiveness, the key metric for measuring equipment performance. Focus is placed on reducing set-up times for manufacturers to increase their flexibility.

1 day of class | If onsite: min. of 5 participants

COST ..... \$495/Person

# INDUSTRY 4.0/CYBERSECURITY

## SMART MANUFACTURING: LEVERAGING AI FOR COMPETITIVE ADVANTAGE

Strengthen your knowledge and skills to harness the power of Artificial Intelligence (AI) in your operations. Participants will dive into essential AI concepts, explore applications in key areas such as predictive maintenance, quality control, and supply chain optimization, and engage in interactive, hands-on activities to build AI models. This course also addresses critical ethical considerations, ensuring that attendees are equipped to implement AI solutions responsibly, ultimately driving efficiency, innovation, and a competitive edge in your manufacturing processes.

1/2 day of class | If onsite: min. of 5 participants

COST .....\$495/Person

## ADVANCED MANUFACTURING TECHNOLOGIES

Learn about Industry 4.0 technologies that have changed the way businesses design, test, manufacture and service products. Class discussions address the ways different technologies – including 3D Scanning/Design, Product/Process Simulation, Digital Twin, Smart Products and Additive Manufacturing – can be applied to continuously improve all aspects of operations, complete with ROI and expected benefits of implementation.

1 day of class

COST .....\$495/Person

## ENHANCED OPERATIONS MANAGEMENT

This class provides an overview of Enhanced Operations Management (EOM) and how it can be used with technology to make systems implementation easier and improve business operations. Class topics include the components of EOM, Big Data and Analytics, System Integration and insight for how to get started. Participants will leave with an understanding of the benefits of implementing technology in their operational management system.

1 day of class | If onsite: min. of 6 participants

COST .....\$495/Person

## HUMAN MACHINE INTERACTION & DIGITAL PROCESS CONTROL

This training on Human Machine Interaction will give participants the knowledge necessary for a basic understanding of the technologies used to achieve interconnectivity of process equipment and human resources. Additionally, participants will learn how to leverage Digital Process Controls to eliminate the opportunity for associates to improperly set up equipment and relieve operators from task saturation by no longer requiring them to manually monitor machine and process performance.

1 day of class | If onsite: min. of 6 participants

COST .....\$495/Person

## IMPROVING INFORMATION SECURITY THROUGH RISK MANAGEMENT

In the current age of cyber crime, the information that is important to our business is continually at risk, and a cybersecurity incident can be devastating. It is vital that each business understand and manage the risks to their information, systems and network that support their business. This class provides participants with the means to identify and mitigate information security risks using the NIST Cybersecurity Framework. By utilizing the five primary framework categories (Identify, Protect, Detect, Respond, Recover) participants will learn how to identify information that needs to be protected, improve processes to reduce risk, identify if the information has been compromised and learn how to recover from these compromises.

1 day of class | If onsite: min. of 4 participants

COST .....\$495/Person

## INTRODUCTION TO ADDITIVE MANUFACTURING

With increasing costs, supply chain issues, and the need for rapid prototyping and manufacturing processes, Additive Manufacturing (specifically 3D printing) has become the solution many companies have turned to. This course is designed to address and overcome the challenges small and medium-sized enterprises face when adopting 3D printing technology. Topics covered include the various 3D printing technologies, advantages/disadvantages of each, and hands-on learning to understand the components, operations, testing and maintenance. Emphasis is also placed on understanding the software involved in 3D printing including Standard Triangle Language (STL) files and RS-274 (G-Code). *\*Note: This is a hands-on course providing participants an opportunity to interact with 3D printers and associated software.*

2 days of classes

COST .....\$995/Person

## INTRODUCTION TO COLLABORATIVE ROBOTICS

With the growing concern of labor shortages, the applications for automation and robotics are increasing. Advances in collaborative robotics enables even small manufacturers to deploy automation safely, quickly and affordably. This course is designed for robotics beginners and will cover robot/cobot basics, components, basic safety, basic programming and how to select the right robot/cobot. Participants will interact with multiple brands of cobotic controllers, equipment setups and tasks.

1 day of class | If onsite: min. of 6 participants

COST .....\$495/Person



# QUALITY MANAGEMENT



## **8D PROBLEM SOLVING (CEU Credits: .7)**

In this class, root cause analysis and problem-solving tools are presented and demonstrated. Both internal and external problems are introduced and understanding is gained through practical, hands-on exercises using common measurement gauges. Problems are presented to demonstrate the typical formats for reporting the findings, applying solutions and corrections.

1 day of class | If onsite: min. of 4 participants

COST .....\$495/Person



## **8D PROBLEM SOLVING TRAINING & APPLICATION**

Equip yourself with the skills needed to effectively apply global 8D Problem-Solving methodology to real-world challenges. Building on foundational tools such as 5-Whys, brainstorming, and fishbone analysis, participants will learn to identify, document, and eliminate root causes while developing permanent corrective actions.

ONSITE ONLY | 2 days | Min. of 4 participants

COST .....\$995/Person

ADD AN EXTRA APPLICATION DAY FOR \$495/PERSON



## **VIRTUAL: 8D PROBLEM SOLVING**

This virtual course teaches the necessary problem-solving steps and how to avoid common mistakes. Learn how to take a problem through a process involving tools such as 5-Whys, Brainstorming, Fishbone Diagrams, and more. Discussions and exercises involving problem-solving tools are included.

1/2 day of class

COST .....\$495/Person



## **AIAG-VDA PROCESS FMEA FOR PRACTITIONERS (CEU Credits: 1.4)**

Equip yourself with the knowledge and skills needed to complete the new FMEA methodology, which includes activities surrounding the 7-Step Approach and use of Action Priority Ratings. At course completion, participants will have the tools needed to objectively evaluate the effectiveness of their current FMEA process while planning and using the new AIAG-VDA FMEA process.

*\*Attendees MUST HAVE previous hands-on experience in PFMEA to the AIAG 4<sup>th</sup> edition FMEA requirements (or equivalent) with a minimum participation as a team member in four (4) PFMEA implementations.*

2 days of classes | If onsite: min. of 5 participants

COST .....\$995/Person



## **AS13000 8D PROBLEM SOLVING**

Gain the skills needed to take a problem through a process with tools such as 5-Whys, Brainstorming, Fishbone Diagrams, Is/Is Not and others defined in AS13000. This class orients participants to the AS13000 problem solving basics and 8D reporting methods.

ONSITE ONLY | 2 days | Min. of 5 participants

COST .....\$995/Person



## **BEST LABELING PRACTICES**

If you've ever had a mislabeling reject from your customers, this seminar is right for you. Morning instruction includes a review of the process steps that can get your system to avoid generating mislabeling rejects. The afternoon is spent on your line(s) determining gaps between current practice and best labeling practice.

ONSITE ONLY | 6 hours | Min. of 6 participants

COST .....\$495/Person



## **CORE TOOLS: APQP, CONTROL PLAN, PPAP, & FMEA (CEU Credits: 1.4)**

Gain a better understanding of the planning, design, process analysis, and validation guidelines aimed at mitigating risk factors impacting product launch. Effective deployment of APQP, Control Plan, FMEA, and PPAP tools can lead to continuous improvement, defect prevention, as well as a reduction in waste and product variation.

2 days of classes | If onsite: min. of 4 participants

COST .....\$995/Person



## **CORE TOOLS: MEASUREMENT SYSTEMS ANALYSIS (CEU Credits: .7)**

We've all heard the expression "garbage in, garbage out." The same can be applied when product acceptance or process control decisions are based on invalid data. Measurement Systems Analysis examines sources of variation in the measurement process, as well as information about measurement characteristics.

1 day of class | If onsite: min. of 4 participants

COST .....\$495/Person



## **CORE TOOLS: STATISTICAL PROCESS CONTROL (CEU Credits: .7)**

Participants run a group of sequentially produced parts and then measure them to determine average, range and sigma. Control limits are calculated using these same parts, and additional samples are measured and plotted to determine where the process is going and why. Interpretations of results are part of this course as well as capability study exercises.

1 day of class | If onsite: min. of 4 participants

COST .....\$495/Person



## **IATF 16949:2016 INTERNAL AUDITOR (CEU Credits: 2.8)**

IATF 16949 Internal Auditor training provides participants with the knowledge necessary to meet the requirements of Clause 9.2 of the automotive quality standard. Additional focus will be made on the "flow-down" of customer-specific requirements in addition to ISO 9001 basics. Learn internal audit methodology, terminology and techniques, as well as the PDCA of internal auditing. This course also covers what internal auditors need to know regarding automotive core tools.

4 days of classes | If onsite: min. of 6 participants

COST .....\$1,495/Person





# QUALITY MANAGEMENT

## **ISO 13485:2016 INTERNAL AUDITOR** (CEU Credits: 2.8)

Understand the specifics of the ISO 13485 Medical Device system, and how to audit to it. Learn how the various requirements may, or may not, apply to your type of organization and be better prepared to implement, understand, and audit your system. Auditor tips and techniques are studied as well as scheduling, planning, and performing audits. You will conduct several mock audits and end with a practical understanding of both the ISO 9001 and added ISO 13485 system audit programs.

ONSITE ONLY | 4 days | Min. of 6 participants

COST.....\$1,495/Person

## **ISO 14001:2015 INTERNAL AUDITOR** (CEU Credits: 1.4)

The ISO 14001:2015 Internal Auditor course will quickly acquaint you with ISO 14001:2015 standards and requirements. This class will cover ISO 14001:2015 elements and standards, how to diagnose conformances and non-conformances, details of the audit process, measures for implementing corrective action, structured steps for conducting an audit, and structures sequence of a typical audit via an interactive simulation session.

2 days of classes | If onsite: min. of 4 participants

COST.....\$995/Person

## **AS9100D INTERNAL AUDITOR (CEU Credits: 2.1)**

AS9100D Internal Auditor training provides the knowledge necessary for participants to meet the requirements of Clause 9.2 of the aerospace quality standard. Participants will review the requirements for an AS9100D-compliant quality management system, which forms the basis for their audits. Additional focus will be made on the “flow-down” of customer-specific requirements in addition to ISO 9001 basics. Learn internal audit methodology, terminology and techniques, as well as the PDCA (planning an audit assignment, performing the audit, reporting and follow-up activities) of internal auditing.

3 days of classes | If onsite: min. of 4 participants

COST.....\$1,495/Person

## **ISO 9001:2015 INTERNAL AUDITOR**

ISO 9001 Internal Auditor training focuses on providing participants with the knowledge needed to meet the requirements of Clause 9.2 of the internal quality standard. Participants will review the requirements for an ISO 9001 compliant quality management system, which forms the basis for their audits.

Learn internal audit methodology, terminology and techniques, as well as the PDCA (planning an audit assignment, performing the audit, reporting and follow-up activities) of internal auditing. Internal audits are an important feature of organizations wanting to become ISO 9001 certified as a prerequisite to the “Stage 1” certification audit by a registrar.

3 days of classes | If onsite: min. of 4 participants

COST.....\$1,495/Person

## **LAYERED PROCESS AUDIT**

Layered Process Audits (LPA) offer companies tremendous benefits. They involve all plant personnel, including multiple levels of management, and cover all key areas in the manufacturing process. Creating an LPA system that is truly effective and obtaining the best, most accurate results requires a solid plan, detailed preparation and knowledgeable personnel.

Learn how to plan, prepare and conduct an LPA on your company’s manufacturing processes. Through a combination of coursework and practical application, our instructor will guide you to establish the necessary planning, checklists and reports through hands-on mentoring in a familiar environment.

6 hours | If onsite: min. of 5 participants

COST.....\$995/Person

## OUR MMTc VALUES

INTEGRITY.

RESPECT.

INNOVATION.

COLLABORATION.

DRIVEN.



## GD&T/BLUEPRINT READING/WELDING



### BLUEPRINT READING (CEU Credits: .7)

How to interpret a technical drawing is an essential skill to anyone involved in the manufacturing industry, especially prior to learning GD&T. This course is designed for those who need an introduction to drawing interpretation and introduces welding print symbols.

1 day of class | If onsite: min. of 6 participants

COST .....\$495/Person



### GD&T FUNDAMENTALS

Need a basic understanding of GD&T? This course provides an overview of the GD&T system, proper identification and call out of datum features, and the effect of modifiers, especially MMC. Attendees will also learn how GD&T saves money over traditional tolerances and how to interpret the 14 symbols.

1 day of class | If onsite: min. of 6 participants

COST .....\$495/Person



### GD&T COMPREHENSIVE

This course provides a comprehensive introduction to understanding GD&T standards and their application. In addition to what is taught in our GD&T Fundamentals course, dive deeper and learn about the GD&T system, proper identification and call out of datum features, the effect of modifiers, how GD&T saves money over traditional tolerances, and how to interpret the 14 symbols.

2 days of classes | If onsite: min. of 6 participants

COST .....\$995/Person



### GD&T TOLERANCE STACKS ANALYSIS

After learning the concepts of GD&T, many participants find they need a methodical way of adding tolerances into an overall stack-up analysis. This course is designed for those who work with stacks. While there is no standard way to do stacks, a spreadsheet method is introduced which allows for both traditional plus/minus tolerances and geometric tolerances. MMC “bonus” and “shift” tolerances are covered.

ONSITE ONLY | 2 days | Min. of 6 participants

COST .....\$995/Person



### WELDING SKILLS ENHANCEMENT

Enhance the skills of your TIG, MIG or STICK welders to improve output and efficiencies. From introductory to experienced, this training is designed to adapt to any level of welding capability. Attendees will practice on equipment and materials used on the job. Upon completion, participants will not only be able to set up their welding equipment, but perform welding, brazing and soldering processes with increased quality.

ONSITE ONLY | 3 days | Min. of 6 participants

COST .....\$995/Person

## SUPPLY CHAIN



### PRACTICAL APPROACH TO SUPPLY CHAIN MANAGEMENT

Supply Chain Management is fundamental to business success. The journey from idea creation to end product is a complicated process with many moving parts. How a company manages this process can directly translate into business success. This course presents fundamental material management tools needed to successfully manage some of those process. This class is designed for those who need an introduction and/or a new emphasis on those processes.

2 days of classes | If onsite: min. of 6 participants

COST .....\$1,495/Person



### SUPPLY CHAIN RISK MANAGEMENT

This class is intended to give students an overview of risk management concepts and philosophies, while developing a real plan. Students learn the elements of a risk management program, the risk management process, and the tools to create a solid plan.

ONSITE ONLY | 1/2 day of class | Min. of 4 participants

COST .....\$495/Person



### VIRTUAL: SUPPLY CHAIN RISK MANAGEMENT

This class is intended to give students an overview of risk management concepts and philosophies, while developing a real plan. Students learn the elements of a risk management program, the risk management process, and the tools to create a solid plan.

1/2 day of class

COST .....\$495/Person



# SIX SIGMA



## ADVANCED PROBLEM SOLVING: LEAN SIX SIGMA YELLOW BELT

**(CEU Credits: 2.1 | PDCs: 21)**

Lean Six Sigma Yellow Belt (LSSYB) training develops the skills of the professional who participates as a supporting team member in a variety of Six Sigma projects. Upon class completion (no project required), a LSSYB will understand the broad aspects and foundational elements of Lean Six Sigma methodology. Learn to implement, perform, interpret and apply Lean Six Sigma principles in a skilled, yet limited/supportive, context.

**3 days of classes | If onsite: min. of 6 participants**

**COST .....\$1,495/Person**



## INTRODUCTION TO DESIGN OF EXPERIMENTS

This course takes the participant on a journey from utilizing proven measurement systems, through the basics of hypothesis testing and ends at factorial designs. Participants demonstrate this knowledge by running experiments in the classroom with hands-on exercises.

**2 days of classes | If onsite: min. of 5 participants**

**COST .....\$995/Person**



## LEAN SIX SIGMA GREEN BELT

**(CEU Credits: 5.6)**

Lean Six Sigma Green Belt (LSSGB) training covers the application of established Lean and Six Sigma techniques to remove wastes, improve operational speed, lower costs and increase customer satisfaction. This certification focuses on improved quality and accuracy, minimized cost and variation, on-time delivery and optimized operational speed; all which enable organizations to become more efficient and profitable producers. Participants receive a LSSGB certification upon submission of a Lean Six Sigma project report that is reviewed and approved by our Six Sigma Master Black Belt.

*\*A project sponsor is strongly recommended and is expected to attend the first session.*

**8 days of classes | If onsite: min. of 6 participants**

**COST .....\$4,495/Person**

**ADD ON MINITAB TRAINING FOR \$495/PERSON**



## SIX SIGMA BLACK BELT (CEU Credits: 7.0)

Training employees as Six Sigma Black Belts will provide the valuable skills needed to tackle the toughest problems confronting your organization. Coupling the proven Define, Measure, Analyze, Improve, and Control (DMAIC) problem-solving methodology with robust statistical tools, Six Sigma offers a carefully defined road map for achieving business process improvements. Black belt trainees obtain a solid understanding of the tools and methods associated with the Six Sigma approach.

The pace of instruction allows trainees to absorb and quickly deploy Six Sigma. With each session, trainees can immediately apply newly acquired skills to their certification project. This improves the retention of key Six Sigma principles, reinforces contextual learning and builds trainee confidence. On-site mentoring by the instructor allows for any fine-tuning with the trainee and his/her sponsor in their own work environment.

**Certification Timeline:** The Black Belt candidate is expected to certify within 12 months of the first day of class. If the time line is not met there will be a late fee for certification. The penalty for late certification increases with time.

*\*A project sponsor (usually the candidate's manager or other company leader) is a requirement for Black Belt certification.*

**10 days of classes | If onsite: min. of 4 participants**

**COST .....\$7,995/Person**

**ADD ON MINITAB TRAINING FOR \$495/PERSON**



## SIX SIGMA GREEN BELT (CEU Credits: 3.5)

From executive leaders to frontline employees, Six Sigma Green Belt training enhances the way employees approach their day-to-day work. Providing employees with Six Sigma Green Belt training equips them with a logical and objective way to identify, measure and eliminate problems within an organization. Suddenly, employees don't have to just cope with process problems – they begin to recognize and implement solutions to them.

A blend of DMAIC project management methods and practical data analysis techniques provide employees with new ways to contribute to the bottom line.

**5 days of classes | If onsite: min. of 4 participants**

**COST .....\$2,995/Person**

**ADD ON MINITAB TRAINING FOR \$495/PERSON**

EVERY \$1  
A COMPANY  
INVESTS WITH  
MMTC RETURNS  
\$18





## FOOD PROCESSING



### FOOD PROCESSING SKILLS DEVELOPMENT

Join us as we cover topics small business owners and frontline workers in the food industry should know. Learn about current Good Manufacturing Practices and how to write them, the Food Safety Modernization Act, and how to identify and control hazards that impact your food safety plan. Lean culture, 5S, the eight types of waste and problem-solving skills are addressed.

ONSITE ONLY | 1 day | Min. of 8 participants

COST .....\$495/Person



### PREVENTIVE CONTROLS QUALIFIED INDIVIDUAL (PCQI)

A Preventive Controls Qualified Individual (PCQI) is required to prepare and oversee the implementation of a facility's Food Safety Plan in compliance with FSMA requirements. Key course topics include developing a Food Safety Plan, Hazard Analysis and Preventive Controls, verification and validation procedures, corrective action (recall plan) and record keeping. This course is recognized by the FDA as meeting the requirements to become a PCQI. Individuals successfully completing this training will receive a certificate from the Food Safety Preventive Controls Alliance (FSPCA).

ONSITE ONLY | 2 1/2 days | Min. of 8 participants

COST .....\$995/Person



### RISK MANAGEMENT IN FOOD PROCESSING

There are many failures that can occur during food processing. Learn how to identify, prioritize, and eliminate failures that can lead to inefficiencies in subsequent processing steps or ultimately dissatisfied customers. Implement Lean tools such as standard work, problem solving, and error proofing to reduce or eliminate processing failures. At the end of training, participants should be able to perform FMEA analysis on their own processes and make the necessary improvements to eliminate the chance of a failure.

ONSITE ONLY | 1 1/2 days | Min. of 6 participants

COST .....\$495/Person



### FOREIGN SUPPLIER VERIFICATION PROGRAM

Learn to implement the requirements of the "Foreign Supplier Verification Programs for Importers of Food for Humans and Animals" regulation of the FDA. This regulation implements the provisions of the 2011 Food Safety Modernization Act.

ONSITE ONLY | 1 1/2 days | Min. of 6 participants

COST .....\$995/Person

## SAFETY

### BATTLE TESTED SAFETY TOOLS

Start building a positive and desirable safety culture within your organization! Using a case study approach, this course will equip participants with the knowledge to:

- Diagnose root causes of organizational safety challenges
- Develop an "UP TO THE TASK" mindset
- Garner management involvement and participation
- Establish safety goals that strengthen your safety program

ONSITE ONLY | 1 day | Min. of 6 participants

COST .....\$495/Person

### LOCKOUT/TAGOUT SAFETY TRAINING

This course focuses on the requirements of the Energy Control Program commonly called the Lockout/Tagout (LOTO) Program. When LOTO is performed incorrectly, it can result in a serious injury or fatality. With LOTO being OSHA's fifth most cited violation, this course is a must for any employee who works near equipment with exposed hazardous energy or is responsible for servicing or maintaining equipment and machinery.

ONSITE ONLY | 1/2 day | Min. of 8 participants

COST .....\$495/Person

### NEW CLASSES & DATES ARE ADDED FREQUENTLY.

To view the 2025 course schedule,  
visit [The-Center.org](https://www.the-center.org).

# CLIENT SUCCESS SPOTLIGHT

## OMEGA CASTINGS, INC. STRENGTHENING LEADERSHIP TO IMPROVE PROFITABILITY

With 15 employees, Omega Castings, Inc. specializes in alloy castings and stainless steel products. Omega Castings was founded in 1975 and operates out of Battle Creek, Mich. Their product portfolio includes cast link belts, drive drums, idler rolls, support rolls, return rolls, pins and custom casting solutions. Omega Castings also offers design, engineering, laboratory and repair services.

### CHALLENGE

When the founder's son took over as president of Omega Castings, he found himself evaluating various aspects of the company. He knew the leadership team was internally promoted staff who had remained loyal to the company. However, many were not experienced leaders and had little training in effectively leading a team. In addition, turnover was high, and the onboarding process needed improvement to better train new hires.

### SOLUTION

President Brett Cutshall wanted to take his leadership team through management training. He reached out to the Michigan Manufacturing Technology Center (MMTC) for assistance. MMTC provided training in Supervisor Skills 1.0 and Supervisor Skills 2.0 to Omega Castings' four-person leadership team. In addition, all team members at Omega Castings took MMTC's Lean Principles and 5S/Visual Management courses.

After supervisor training, the leadership team felt a big shift. They understood how to efficiently lead people and properly train new hires. The leaders began asking their staff for solutions to problems and working through them together to make improvements. The team now felt they had a voice and could make suggestions to make processes more efficient.

As a result of MMTC's Lean training, Omega Castings is rearranging its facility to reduce wasted time and money. It is estimated that the reorganization of equipment will open nearly 20% of the plant floor. The company also holds "All Hands On Deck" meetings to regularly listen to staff and address any issues or concerns.

### RESULTS

- 100% INCREASE IN PROFITABILITY DUE TO INCREASED PRODUCTION AND REDUCED TURNOVER
- 54% INCREASE IN PRODUCTIVITY
- \$150,000 NEW EQUIPMENT INVESTMENT



*After being awarded funding for training, I was unsure about how effective it would be. Since completing the courses, we have seen outstanding results and are thankful for MMTC's expertise. Even if funding isn't awarded in the future, we will continue to utilize MMTC for further training and process improvements.*



Brett Cutshall,  
President

WE'RE FOCUSED ON YOU.

## MEET YOUR BUSINESS SOLUTIONS MANAGER!

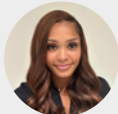
FOR MORE INFORMATION REGARDING OUR COURSES OR PERSONALIZED MENTORING, CONTACT YOUR MMTC BUSINESS SOLUTIONS MANAGER.

### MMTC-SOUTH

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### MMTC-EAST

Genesee, Lapeer, St. Clair, Tuscola, Sanilac and Huron Counties

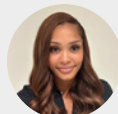


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