



MANUFACTURING CONNECTIONS

Northwest Wisconsin
Resource Handbook for Manufacturers



*Preparing the
workforce of
the present
and the future!*



JIM DOYLE
GOVERNOR
STATE OF WISCONSIN

Dear Friends:

Manufacturing is a cornerstone of Wisconsin's economy. As Governor, I am committed to investing in Wisconsin's manufacturers. To keep our manufacturing sector going strong into the future, we need to continue investing in the companies and workers that will keep Wisconsin competing on the high end.

As you all know, our state is facing a severe economic crisis caused by a downturn in the global economy. Like many other states, this is causing significant stress to our budget.

We have made significant budget cuts; however, it is incredibly important we remain committed to the principles that define who we are in this state: quality education, access to affordable health care and a first-rate infrastructure. In Wisconsin, during these tough times, we must also continue to strive to grow jobs and invest in innovation.

Here in Wisconsin, we can – and we must – continue to build on the progress and momentum we've created through decades of hard work. We will seek new markets and invest in the innovative ideas that will propel our economy into the future, creating good jobs for hardworking Wisconsin families. We will continue to invest in things like clean energy, biotechnology, and high-end manufacturing that will continue to drive our economy for years to come.

I look forward to continuing to work with you as we seize new opportunities in these tough economic times, and build a prosperous future for Wisconsin.

Sincerely,

A handwritten signature in black ink that reads "Jim Doyle".

Jim Doyle
Governor

IS YOUR COMPANY IN SEARCH OF:

- Higher Individual Productivity & Efficiency
- Top Line Growth
- Cost Cutting Methods
- Elimination of Waste
- Decreased Lead Time
- Enhanced Workforce Skills



The resources to address these needs, which are crucial to the improvement and growth of your business, are right at your fingertips! We invite you to explore the opportunities for your company's development as highlighted throughout this guide.

Advanced Manufacturing Solutions (AMS) is a statewide initiative designed to stimulate the attraction, growth and development of 21st century manufacturing in Wisconsin. The network's three key strategies are to raise the level of manufacturing employee productivity, raise the level of manufacturing business effectiveness, and to develop advanced technology manufacturing. The Northwest Network of the AMS is comprised of Chippewa Valley Technical College, Mid-State Technical College, Nicolet Area Technical College, Northcentral Technical College, Western Technical College, and Wisconsin Indianhead Technical College. By joining with our manufacturing community partners, we are moving forward in preparing the workforce of the present and future. This commitment involves workforce development strategies for the retention and expansion of existing manufacturing through innovation as well as incubation and development of new high technology businesses.

We recognize the challenges that manufacturers in Northwest Wisconsin face and it is our mission to deliver the training and technical assistance necessary to provide continued support for an improved top and bottom line. Let us assist you on your journey for success through proven methods, customized to meet your needs! Working together, our experienced professionals will provide a needs assessment for your company to help you develop a plan to build and maintain a high-performance workforce.



**Advanced
Manufacturing
Network
Northwest**



GROW WISCONSIN – MANUFACTURING

In 2003 Governor Jim Doyle initiated a strategic plan for Wisconsin entitled “Grow Wisconsin”. This plan was developed to provide a directional guide to Wisconsin’s future. This plan has resulted in a number of initiatives, grants, legislation, and funding opportunities to support Wisconsin’s Manufacturing Base. The plan continues to guide investment and project activity. The following selected points from the Governors plan highlight and frame the continued importance of Manufacturing to Wisconsin’s economy.

Add Value in Wisconsin’s Economic Base

Wisconsin’s economic base includes manufacturing, agriculture, and tourism, and needs strengthening. This high end strategy to grow Wisconsin’s Economic Base is designed to help increase productivity, export more, add value, increase skills, and employ technology to maximize the value of our current economic manufacturing base. Manufacturing comprises 24% of the economic base and is a critical component for Wisconsin’s future.

Retain and Create High Wage Jobs

One of the central priorities of the “Grow” plan is to focus state economic efforts on creating and expanding job opportunities that will increase earning power for average Wisconsin families. Wisconsin’s average wage is \$31,500 as recorded in 2003 statistics. Overall manufacturing wages are higher than the average and sometimes referred to as “Gold Collar Career” opportunities.

Prepare Workers for Tomorrow’s Economy

Wisconsin’s people are the best advantage we have today and the most important advantage in Wisconsin’s future. Building our workers’ skills so they can advance up the career ladder as our economy prospers and grows will better position the economy with the sustained workforce for Wisconsin. Part of this effort has resulted in the development of portable recognized certificates, courses, and instructional programs. From Critical Core Manufacturing Skills (CCMS), Manufacturing Skills Standards Council (MSSC) Certification to Emerging and Advancing educational programs, instruction is being developed and aligned with Tomorrow’s Technology sectors. These sectors include Biotechnology, Nano-Technology, Advanced Machining, Plastics/Materials, Energy and others.

Create and Unleash Knowledge to Build Emerging Industries

Wisconsin is producing incredible knowledge and intellectual property in our universities, laboratories, and companies. Some of the fastest growing, highest paying, and emerging industries depend on commercializing this knowledge.





Implement Strategies Regionally

Wisconsin is a diverse state with differing economic needs and dominant industries across the State. The Governor is committed to working with regional groups and officials to tailor strategies across the state. The Advanced Manufacturing Solutions-NW Network and the Northwest Manufacturing Outreach Center are examples of such regional voices for Manufacturing.

Build a World Class Infrastructure

Wisconsin's manufacturing and agricultural economy flourished in part, because we invested in an extensive road network decades ago to move products to market. The Governor is working to secure the energy, transportation, and communication infrastructure Wisconsin needs to be fully engaged in the national and world economy.

WISCONSIN MANUFACTURING SKILL STANDARDS CERTIFICATION

The Manufacturing Skill Standards Certification (MSSC) is a nationwide system of training, assessment, and credentialing for manufacturing production workers across all industry sectors. The skills-based certification system is built on industry-defined, nationally validated, and federally endorsed MSSC standards, offering both entry-level and experienced employees the opportunity to demonstrate mastery in skills increasingly needed in the high-growth, technology-intensive jobs of the 21st century. MSSC focuses on core knowledge and skills in four critical work functions of production: Safety, Quality Practices and Measurement, Manufacturing Processes and Production, and Maintenance Awareness. The MSSC System awards a "Certified Production Technician (CPT)" credential to individuals who pass all four modules. The CPT credential will set the quality standard in our nation's factories.

Visit <http://mssc.wi.gov> for more information and contact your local technical college for more information and to find the MSSC Training and Assessment Center nearest you.



CRITICAL CORE MANUFACTURING SKILLS

The Critical Core Manufacturing Skills training program gives your employees the tools they need to meet the changing demands of the modern manufacturing environment and deliver consistently high performance.

Combining powerful new training content with real-world application, each module focuses on a specific skill in one of four key areas—productivity, problem solving, teamwork, and adaptability. Modules can be offered as single sessions or grouped into a customized training package geared to your business objectives, timeline, and budget.

Core Productivity Skills

Module 1: Work productively

Module 2: Follow directions

Module 3: Maintain a safe work environment

Core Problem Solving Skills

Module 4: Think critically

Module 5: Apply problem solving strategies

Module 6: Apply mathematical reasoning

Core Team Skills

Module 7: Work cooperatively in teams

Module 8: Communicate clearly

Module 9: Listen effectively

Core Adaptability Skills

Module 10: Demonstrate integrity

Module 11: Demonstrate a positive attitude

Module 12: Adapt to change



Our experienced technical college staff and professional trainers will work with you to assess the specific training needs of your workforce to design and deliver a customized approach around your business objectives, timeline, and budget.

The CCMS training program is available through each of technical college districts in Northwest Wisconsin. Visit www.wtcsystem.edu to learn more or contact your local technical college representative to get started today!

CHIPPEWA VALLEY TECHNICAL COLLEGE

No two companies are alike - Training Partnerships are designed to meet your specific organizational and technological needs. Our instructors excel and specialize in many areas of manufacturing and are already equipped with the latest technology to help your employees build on their skills.

CVTC will bring customized training right to your organization at a time that is most convenient and productive. CVTC classes held on-site at your company or organization can help you save time and money resulting in higher skills and more productive employees.

Or, if you prefer, choose to hold your training at one of our Conference Centers, located at either the Gateway Manufacturing Education Center in Eau Claire, or the Chippewa Falls Campus in Chippewa Falls, Wisconsin. In addition, there are many convenient classroom locations at any of our campuses.

Training programs at CVTC are taught by professionals with practical job experience in their respective fields. This ensures students receive the highest quality instruction available.

CVTC's comprehensive training services are geared to meet the individual needs of each business. On-site seminars, classes, training, and technical assistance can bring the resources of the College right to your door. Conference Center or Campus training also provides a unique and comfortable atmosphere that is conducive to learning off-site as well.

Customized Manufacturing Training Opportunities:

- CAD/CAM Applications (Computer Aided Design/Manufacturing)
- Strategic Planning/Facilitation
- PLC (Programmable Logic Controller) Applications
- Industrial Maintenance
- Critical Core Manufacturing Skills
- Auto Fleet
- Blueprint Reading
- GD&T (Geometric Dimensioning & Tolerancing)
- Quality Processes
- Haz-Mat (Hazardous Materials)
- Welding
- Pneumatics
- Electromechanical
- Hydraulics
- Machine Tool
- Advanced/Micro-Machining
- Nanoscience/Biotechnology/Microfabrication

Other Targeted Training Solutions:

- Safety and Health / OSHA
- Business Management
- Computer Applications
- Leadership

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www.cvtc.edu

MID-STATE TECHNICAL COLLEGE

Mid-State Technical College offers degree and diploma programs, certificates, and business training for agribusiness, business, health, service, technical, and industrial careers. We are dedicated to meeting the region's changing and emerging business and workforce development needs. In Wisconsin, business and industry turn most often to the Wisconsin Technical College System as the prime resource for keeping the workforce up to date, and for managing technological change in the workplace.



Mid-State Technical College delivers the training you want anytime, anyway, anywhere. We have the flexibility to respond quickly to training needs. Classroom instruction is still the primary delivery mode, whether it's on campus or on-site.

When employees succeed; companies thrive. Let us help you achieve your training objectives. Mid-State Technical College's Workforce & Economic Development staff will work with your business to assess the training needs and provide the training to fill-in the gaps. We can deliver training at our Wisconsin Learning Center facility, at the Wisconsin Rapids Campus, or at your facility. We work with you to develop your own training program.

We are experienced in ways to improve your employees' skills with business, computer, human resources, industry, leadership, and management training. Not sure if the training is right for you? Attend a Core Business Skills Lunch & Learn and sample our training programs while meeting other area business members.

Our training programs are geared towards all employees within a business. Only have one employee who needs training? We offer open enrollment or training can be scheduled for an entire team.

Contact:

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www.mstc.edu

NICOLET AREA TECHNICAL COLLEGE

Northwoods manufacturers are experiencing unprecedented change in adapting to the 21st century economy. Increased competition in a global market and a more intense focus on quality, productivity, and price are shaping the modern manufacturing landscape. And advanced technologies are transforming the way the work gets done. As your education and training partner, Nicolet College will work side by side with you to meet these challenges and help your employees gain the knowledge and skills they need to succeed in the changing manufacturing environment.

Nicolet offers an extensive array of high quality, skills-based training solutions to increase individual productivity and maximize organizational performance. Our professional trainers and consultants are not only experts in their fields, but also experienced in teaching adult learners. And we guarantee results!

Take advantage of our public workshops and seminars, check out our new instructor-led online classes, or let us help you design a customized training program that best fits your needs, your timeline, and your budget. We are dedicated to your success...because your business matters.

Customized Manufacturing Training Opportunities:

- Blueprint Reading
- Communication Skills for Technicians
- Computer Skills for Technicians
- Confined Space Training
- Critical Core Manufacturing Skills
- Electricity/Electronic Calculations
- Fluid Power Troubleshooting
- Forklift Operator Safety
- Forklift Operator Train-the-Trainer
- Emergency Response Training
- Geometric Dimensioning and Tolerancing
- Hazardous Materials Training
- Hydraulic and Pneumatic Systems
- Industrial Maintenance
- Lean Manufacturing
- Manufacturing Skills Standards Certification (MSSC) and Training
- Metal Fabrication
- Metallurgy
- Motor Control and Ladder Logic
- National Electrical Code (NEC)
- Process Control
- Programmable Logic Controllers (PLC's)
- Project Management
- Quality Improvement
- Statistical Process Control (SPC)
- Technical Math
- Visual Weld Inspection
- Welding and Weld Certification
- Workplace Basic Skills

Workshops & Seminars:

- Bookkeeping and Computerized Accounting
- Business at Breakfast Series
- Business Management
- Computer Software Applications
- Graphic Design
- Human Resource Compliance
- Leadership and Supervisory Development
- Lunch and Learn Events
- Safety and Health/OSHA
- Small Business Essentials
- Graphic Design
- Computer Software Applications
- Bookkeeping and Computerized Accounting
- Industry-Specific Continuing Education

Contact:

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www.nicoletcollege.edu/business

NORTHCENTRAL TECHNICAL COLLEGE

Workforce Learning Solutions, a division of Northcentral Technical College, is happy to help you find affordable, local, unique professional development opportunities in many fields of employment. We specialize in real life learning and employ the highest quality trainers and instructors who have both educational degrees and real work experience in the fields they are teaching in. Our continuing education opportunities help you strengthen your skills as well as help you advance in your field. WLS is your solution for local professional development opportunities without leaving your family and spending time and money traveling. We provide continuing education in a variety of flexible and accessible ways with face-to-face and interactive distance television courses at our Wausau, Antigo, Medford, Phillips, Spencer and Wittenberg campuses on weekdays, evenings, weekends and online to meet your busy schedule. Our website is continually updated with new opportunities. All of our catalog courses can be customized and delivered on-site to your organization. We are committed to working with you to assess your company needs and build a customized training package. We look forward to working with you to provide the professional continuing education solution that you need!

Customized Manufacturing Training Opportunities:

- Welding
- Machine Tool
- Manufacturing Technology
- Lean In the Workplace
- Six Sigma
- Critical Core Manufacturing Skills

Other Targeted Training Solutions:

- Leadership
- Business & Information Technology
- Industrial Safety
- Customer Service
- Cultural Awareness
- Human Relations
- Marketing
- Communication



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www.ntc.edu

WESTERN TECHNICAL COLLEGE

Regardless of the industry or size of your company, developing and retaining your workforce to compete in the face of rapid change requires an ongoing investment in training and development.

Western Technical College understands your need for skilled employees and is committed to helping you develop a top-quality workforce with the skills you need to maintain a competitive advantage.

The Business & Industry Services Division of Western Technical College is committed to providing education and training to meet the needs of employers as they strive to improve employee productivity, quality, and satisfaction. To accommodate busy schedules, we are happy to customize and deliver seminars, credit programs, workshops, and other training on-site at your convenience. We will work with you to customize content of any credit, noncredit or seminar course to meet your organization's specific needs and goals. Training from Western is customized to meet your needs, scheduled at a time convenient to both management and employee, up to date and using the latest in instructional techniques, relevant to your industry and your community.

Customized Manufacturing Training Opportunities:

- All technical trades (welding, CNC etc)
- Lean Certificate Series and a variety of lean offerings
- OSHA training specific to the manufacturing environment
- Leadership in Manufacturing
- Ammonia refrigeration systems and maintenance
- Manufacturing Skills Standards Certification (training and assessments)
- Forklift Training as well as other equipment
- APICS and all types of Inventory/Purchasing Training
- Critical Core Manufacturing Skills

Other Targeted Training Solutions:

- Project Management
- Leadership/Team Building
- Lean/Six Sigma
- Leadership/Supervision/Management
- Healthcare
- Information Technology/Computer Skills
- Interpersonal Skills in the Workplace
- Safety Training for Businesses

Workshops & Seminars:

- Seminars for Business & Industry
- Lunch N' Learns
- Lessons In Leadership Breakfasts

Contact:

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Western Technical College

www.westerntc.edu

WISCONSIN INDIANHEAD TECHNICAL COLLEGE

WITC offers customized training and technical assistance that can help you stay on top in the competitive business community. We provide you the resources you need at your location, at our location, on your time schedule.

We offer many ready-made, off-the-shelf courses. We can also change a course, develop new delivery options, or design instruction to meet your specific training needs. Training topics cover a broad and diverse spectrum, from telephone skills to specific industrial skills and management development to basic skills in reading, writing and math.

Customized Manufacturing Training Opportunities:

- Welding/Metal Fabrication
- Geometric Dimensioning and Tolerancing
- Blueprint Reading
- Computer Aided Design (CAD)
- Computer Aided Manufacturing (CAM)
- Machine Tool Techniques and Operation
- Programmable Logic Controllers (PLC's)
- Critical Core Manufacturing Skills
- Six Sigma
- Forklift Training

Other Targeted Training Solutions:

- Computer Software Applications
- Leadership and Management Development
- Small Business Management
- Managing Human Resources
- Basic Skills for Employees
- Occupational Safety and Health



Contact:

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WISCONSIN
INDIANHEAD
TECHNICAL
COLLEGE

www.witc.edu

NORTHWEST WISCONSIN MANUFACTURING OUTREACH CENTER

The technical colleges in Northwest Wisconsin are proud partners with the Northwest Wisconsin Manufacturing Outreach Center (NWMOC), based at the University of Wisconsin-Stout. NWMOC is a collaborative public and private partnership, bringing together federal state and local resources with a mission to promote the competitiveness, strength, productivity, growth and innovative capabilities of small and medium sized manufacturers in Northwest Wisconsin.

NWMOC provides at-your-location services by seasoned practitioners with expertise in manufacturing management. The experts at NWMOC deliver integrated services to manufacturers in 33 northern and western Wisconsin counties. Manufacturers come to NWMOC for the impartial guidance they need to increase the competitive advantage for their businesses. We provide point solutions for specific issues or undertake company-wide lean transformations.

Part of the National Institute of Standards and Technology Manufacturing Extension Partnership (NIST/MEP), NWMOC ranks high in customer satisfaction. Last fiscal year, NWMOC provided technical assistance to 139 firms. In FY 2007-08, client-reported impacts exceeded \$60 million with a customer satisfaction rating of 4.78 on a 5.0-point scale.

Services:

- Lean Transformation
- Winning Ways Growth Services
- Value Stream Mapping
- Cellular/Flow Manufacturing
- Lean for Process Industries
- Office Lean
- ISO 9000 Implementation
- Pull/Kanban System
- Quick Changeover/Setup Reduction
- The 5S System
- Total Productive Maintenance (TPM)
- Lean Manufacturing Certification
- Annual Manufacturing Advantage Conference



Contact:

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<http://nwmoc.uwstout.edu>

GOLD COLLAR CAREERS

The Gold Collar Careers initiative has existed for approximately five years with an aim to promote a positive manufacturing image as a potential career choice. The initial group of manufacturers and educators identified a gap in the supply chain to manufacturing positions in Western Wisconsin. These gaps in positions such as welders, machinists, automation technicians, advanced technology processing technicians, and maintenance personnel were holding back regional manufacturer growth. A positive manufacturing image did not exist and students were not entering manufacturing programs. Thanks to the generosity of supporting organizations, the efforts of key manufacturing leadership, the support of CESA, three post secondary colleges, and Workforce Resources much has been done to fill the pipeline to producing trained technicians. This initial group created an enhanced regional West Central Wisconsin Manufacturing image and helped to fill the supply chain for these manufacturing technology careers.

The technical worker supply chain will continue to be an issue in Northern, Western, and North Central Wisconsin if the demographic predictions are correct. As a result of this projected skilled worker shortage, we are now moving to expand on the initial successes of the committee to provide regional youth outreach.

The primary outreach portal promoting manufacturing careers as a Gold Collar Career choice is located at www.goldcollarcareers.com. Please visit this website to see our current version of this portal. We invite you to get involved in this regional effort throughout Northwest Wisconsin.

Activities to Promote the Image of Manufacturing and Manufacturing Careers:

- Gold Collar Career Pathway Brochure Development
- Print and Advertisements
- Movie Theater Trailers
- Mall Kiosks
- Presentations and Exhibits at Career Conferences for Counselors, Administrators & Teachers
- Exhibits at Career Fairs for Students
- Presentations to students, parents, teachers, civic groups, and job placement agencies
- Website
- Promotional Items

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**GOLD
COLLAR
CAREERS**

www.goldcollarcareers.com



OTHER AVAILABLE RESOURCES

- Small Business Administration (SBA) - www.sba.gov
- Wisconsin Manufacturers and Commerce (WMC) - www.wmc.org
- Wisconsin Procurement Institute (WPI) - www.wispro.org
- Bureau of Apprenticeship Standards - <http://dwd.wisconsin.gov/apprenticeship>
- Small Business Development Center (SBDC) - www.wisconsinsbdc.org
- Business Procurement Assistance Center (BPAC) - <http://matcmadison.edu/BPAC/>
- Wisconsin Entrepreneurs' Network (WEN) - <http://wenportal.org>
- Wisconsin Department of Commerce - Business Development - www.commerce.state.wi.us
- SCORE - Counselors to America's Small Business - www.score.org
- The Official Business Link to the U.S. Government - Business.gov

GRANT OPPORTUNITIES

Workforce Advancement Training Grants

Workforce Advancement Training grants promote increased investment in the development of incumbent workers and expand technical college training services to help businesses and industry meet their training needs. Grants will be awarded to upgrade the skills and productivity of employees of established, for-profit businesses and industries operating in Wisconsin, with the broader objective of supporting regional workforce and economic development efforts.

Workplace Adult Basic Education Grants

Funds used to create or expand Workplace Adult Basic Education programs, which are the result of education partnerships between business, labor and Wisconsin Technical College System districts.

For more information on these and other grant opportunities, contact the representative identified in this guide for the technical college near you.



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