Webinar Logistics

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This webinar will be recorded and posted on: www.themanufacturinginstitute.org
Manufacturers Endorsed Education Alliance

Community of Learners Webinar
December 12, 2012
Agenda

- **Rationale for Launching the Alliance** - Brent Weil, Senior Vice President for Education and Workforce, The Manufacturing Institute

- **The Business Perspective** – Sylvia Wetzel, Chief Learning Officer, Bison Gear and Engineering

- **The Education Perspective**
  - Dr. Maria H. Coons, Executive Director of Workforce and Strategic Alliances, Harper College
  - Matthew Meyer, Associate Vice President/STEM Innovations, North Carolina Community College System

- **Application Process** – Melanie Stover, Project Manager, The Manufacturing Institute

- **Questions and Answers**

- **Technical Assistance Needs Survey**: Dr. Audrey Theis, Technical Assistance Provider
The Alliance: What It Is & What It Means for You

Brent Weil
Senior Vice President for Education and Workforce
The Manufacturing Institute

MANUFACTURING Institute
Our Objectives

- Recognize and support early adopters
- Give visibility to Skills Certification System and schools that are adopting it
- Build momentum toward widespread adoption
- Improve recruitment, employer outreach, and site selection
- Standardize certification adoption
Criteria for Membership

✔ Deliver a manufacturing-related program that prepares students to pass at least one technical certification that is a recognized element of the NAM-Endorsed Skills Certification System, and allows students to advance in or into a for-credit academic pathway.

✔ Agree to a Statement of Principles and pledge to work to build a robust system of certifications to serve the skilled workforce needs of manufacturers in their community.

✔ Provide documentation of active manufacturing employer councils and hiring relationships.

✔ Maintain accreditation by an agency or association recognized by the U.S. Department of Education.
Principles Driving the Alliance

The following principles represent the “gold standard” that an educational institution would strive for when implementing the NAM-Endorsed Skills Certification System:

- **Industry-based certifications awarded**
- **Curriculum and industry standards aligned to the NAM-Endorsed Skills Certification System**
- **For-credit option preferred:**
  - Full credit should ideally be awarded.
  - At a minimum, a defined pathway should be clear for students to earn transfer credit or otherwise apply their training toward a degree.
Assessment centers easily accessible (on campus or in convenient locales)

Testing is timely, with certification assessments as soon as possible after the mastery of material

NCRC incorporated: Though not required for membership in the Alliance, the National Career Readiness Certificate is strongly encouraged upon entry or as a basis for remediation as part of a technical education track.

Employers connected: Educators must have strong representative employer networks in their region through active curriculum advisory committees, as well as agreements on internships and job placements.

Easy access: Although not required for membership in the Manufacturers Endorsed Education Alliance, our principles call for multiple on- and off-roads to education pathways.
Benefits

Alliance schools will gain from:

- Nationwide launch
- Outreach and referral network and marketing materials
- Connection to manufacturing employers
- Placement in US Manufacturing Pipeline (pending)
- Prominent web placement
- Use of the logo on institution’s website, course catalog, employer brochures, etc.
The Business Perspective

Sylvia Wetzel
Chief Learning Officer
Bison Gear and Engineering
Certifications Utilized at Bison

NCRC:
- Started using ACT-Work Keys assessment in 2011
- Used in pre-hiring process for production applicants
  - ✓ Applied Mathematics
  - ✓ Reading for Information
  - ✓ Locating Information

MSSC
- Started using for incumbent worker training in 2008
- MSSC offers the training components that improve our workers knowledge in critical areas
  - ✓ Safety
  - ✓ Quality Practices & Measurement
  - ✓ Manufacturing Processes
  - ✓ Production
Impact of Certifications

- Improved Safety
- Quality Improvements
- Self Directed
- Confident
- Engaged

Measured Improvement:
- Our Productivity Levels have *improved by 31%* since inception in 2008
- In 2011 our Quality Level was the *BEST EVER IN OUR HISTORY*.
- Our Safety moved into an OSHA DART *better than* standards metric.
Value of Education Alliance

• Helps locate potential pool of workers certified to industry standards.

• Identifies schools that are training to industry standards.

• Provides recognition for schools that are adapting to change/eager to work with business.

• Promotes business-education partnerships.
The Education Perspective

Dr. Maria H. Coons
Executive Director of Workforce and Strategic Alliances
Harper College

Matthew Meyer
Associate Vice President/STEM Innovations
North Carolina Community College System
William Rainey Harper College

- Comprehensive community college in Palatine, Illinois
- Named for Dr. William Rainey Harper, a pioneer in the junior college movement in the United States and the first president of the University of Chicago
- Serves 40,000+ students annually, with access to job-ready degrees and certifications.
- Accredited by the Higher Learning Commission of the North Central Association of Colleges and Secondary Schools (NCA)
Long-Standing Manufacturing Programs

Maintenance Technology
- Associate in Applied Science Degree
- Credit Certificate Programs
  - Basic Maintenance
  - Commercial Maintenance
  - Manufacturing Basic Certificate
  - Supervisory Maintenance Certificate
  - Electronics Technology

Welding Technology
- Associate in Applied Science Degree
- Credit Certificate Programs
  - Advanced Welding Certificate
  - Basic Pipe Welding Certificate
  - Basic Welding Certificate
  - Welding Fabrication Certificate

Continuing Education (CE) Non-credit
- Welding for Artists
Harper College launches new manufacturing program, internships

In an attempt to fill growing vacancies in high-tech manufacturing, Harper College is teaming up with local companies to create a stream of future employees.
Manufacturing Technology

- **Associate in Applied Science Degree**
- **Credit Certificate Programs**
  - Manufacturing Production Certificate
  - Computer Numerical Control (CNC) Operator I Certificate
  - Computer Numerical Control (CNC) Operator II Certificate
- **Aligned with Manufacturing Skill Standards Council (MSSC) Certified Production Technician (CPT)**
**ADVANCED MANUFACTURING PROFESSIONAL EDUCATION PATHWAY**

**STEP 1:**

**Earn Your Manufacturing Production Certificate**

This 16-hour certificate builds core competencies of manufacturing production to prepare students for internships and entry-level positions in manufacturing:

- MTH 097 Tech Math
- MFT 102 Intro to Manufacturing and Safety
- MFT 104 Quality and Measurement
- MFT 108 Manufacturing Processes
- MFT 109 Intro to Manufacturing Maintenance

This certificate also prepares students for a nationally recognized credential offered by the Manufacturing Skills Standards Council (MSSC).

**STEP 2:**

**Select a Field of Specialization**

- Mechatronics/Automation
- Precision Machining
- Metal Fabrication
- Supply Chain Management/Logistics

**Serve an Internship**

Serve an Internship (MFT 119) related to your field of specialization.

**STEP 3:**

**COMPLETE TWO OR THREE CERTIFICATES IN YOUR SPECIALIZED FIELD**

- **Mechatronics/Automation**
  - Electrical Maintenance (10 hours)
  - Industrial Electronics (6 additional hours)
  - Mechatronics/Automation (10 additional hours)

- **Precision Machining**
  - Computer Numerical Control Operator I (15 hours)
  - Computer Numerical Control Operator II (12 additional hours)

- **Metal Fabrication**
  - Basic Welding (16 hours)
  - Welding Fabrication (13 additional hours)

- **Supply Chain Management/Logistics**
  - Inventory/Production Control (12 hours)
  - Purchasing Certificate (6 additional hours)
  - Physical Distribution Certificate (6 additional hours)

**STEP 4: (when you're ready)**

Complete your Associate of Applied Science Degree

**STEP 5: (when you're ready)**

Advance to a four-year institution to pursue your Bachelor's degree

harpercollege.edu
Application to Education Alliance

- Meet criteria to apply to Education Alliance through Manufacturing Technology program
  - Deliver a manufacturing-related program that prepares students to pass at least one technical industry certification that is a recognized element of the NAM-Endorsed Skills Certification System
  - Allow students to advance in or into a for-credit academic pathway.
  - Agree to the Statement of Principles and pledge to work to build a robust system of certifications to serve the skilled workforce needs of manufacturers in their community.
  - Support active manufacturing employer councils and hiring relationships.
  - Maintain accreditation by an agency or association recognized by the U.S. Department of Education.

- Will add Welding and Maintenance programs to Education Alliance profile as industry certifications are embedded
Polling Question #1
TAACCCT Grant

- Earn and Learn Advanced Manufacturing Career Lattice Program
- 21 Illinois colleges - Illinois Network for Advanced Manufacturing (INAM)
- Targets Trade Adjustment Assistance workers, veterans and others
- Participants earn stackable, portable certificates and degrees leading to highly paid jobs within advanced manufacturing while working in the industry.
- Participants enter program at multiple points based on assessment results that match skills and education needs.
Diagram 1

Earn and Learn Model
Advanced Manufacturing Career Lattice

Preparation for Manufacturing Careers
Bridge Programs
and/or National Career Readiness Certification

Certified Production Technician
(MSSC Nationally Recognized Certificate)

Educational Plan

Program entry point based on previous education, assessment, and credit for prior learning. Source of eligible students: Local WIBs, Veterans Associations.

Work/School Mentoring

Mechatronics
Electrical/Mechanical/Robotics
Other (PMMI)

Precision Machining
CNC Other (NIMS, AWS)

Maintenance Reliability
Total Predictive Maintenance

Metalworking
Welding Metal Fabrication Other (NIMS, AWS)

Green TQM, Reducing Waste

Job Placement

Complete AAS Degree
(General Education Requirements)

Job Placement

Bachelor Completion and Beyond

College/University Partners
Proposed Industry Certifications

- **Entry Level:** MSSC Certified Production Technician (CPT)
- **Intermediate:**
  - Mechatronics: Certificates in Motion, Sensors, Electronics, Robotics and PMMI Certification
  - CNC: Certificates in Precision Machining and NIMS Certification
  - Industrial Maintenance: Certification in Machine maintenance
  - Welding/Metalworking: AWS and NIMS Certifications
  - Green Manufacturing: Certificates in Waste Management and Lean Manufacturing
Value of Education Alliance

- Helps promote Harper as leading edge
- Assures employers that programs are aligned with industry standards
- Helps to engage employers as partners in offering internships
- Points employers to the college as a source of skilled workers
- Lets students know that training is state-of-the-art
- Promotes value of industry-based certifications
The Education Perspective

Matthew Meyer
Associate Vice President/STEM Innovations
North Carolina Community College System
Application Process

Melanie Stover
The Manufacturing Institute
Project Manager
Application Process

Step One: General Contact Information

Application Process

**Step Two:** Manufacturing-Related Programs and Certification Information

Current Manufacturing-Related Programs Leading to Certifications Supported by the NAM-Endorsed Manufacturing Skills Certification System

My institution is currently offering the following manufacturing-related program(s) with embedded industry certifications supported by the NAM-Endorsed Manufacturing Skills Certification System. Please list the program and the industry-based certifications students can earn, and indicate if the program is credit or non-credit. If non-credit, indicate how many credit a student would earn when transferring into a for-credit program of study.

Example: Welding Technology, American Welding Society D 1.1 Multiple Processes, Credit

Example: Manufacturing Technology Diploma Program, (1) National Career Readiness Certificate; (2) Manufacturing Skill Standards Council (MSSC) Certified Production Technician (CPT); (3) NIMS Level 1 Machining – four credentials, Credit

**NOTE:** You do not need to list every manufacturing program you offer – just those in which students can earn an industry-based certification.

Please list program, industry-based certifications, and if the program is credit or non-credit.

**NOTE:** Please attach to this application any additional materials you think would be helpful in explaining your manufacturing programs of study (e.g., career pathway visual, one-page overviews). If you cannot upload, please send directly to Melanie Stover at mstover@nam.org.
Application Process

Step Three: Right Skills Now

Right Skills Now (RSN) is the accelerated delivery model for the Skills Certification System. The basic format for the RSN model is 24 weeks: 18 weeks of classroom instruction in a for-credit program of study, followed by a 6-week paid internship leading to employment. Students earn a National Career Readiness Certificate (NCRC), plus at least one technical industry-based certification.

Is your institution currently offering an accelerated model in a manufacturing-related program of instruction, in which students earn both a National Career Readiness Certificate AND at least one technical certification? *
- Yes
- No

Do you call this model Right Skill Now? *
- Yes
- No

If no, what do you call your model?

If you are NOT currently offering an accelerated model, would you like more information about it?
- Yes
- No
Application Process

Agreement

By checking the box below, I certify that my institution delivers a manufacturing-related program that prepares students to pass at least one technical certification that is a recognized element of the NAM-Endorsed Skills Certification System, and allows students to advance in or into a for-credit academic pathway. (Delivery of instruction in a non-credit environment will satisfy this criterion as long as standardized, equivalent credit is associated with earning the certification and can be applied to a for-credit program of study).

☐ I agree

By checking the box below, I certify agreement with the Statement of Principles and pledge to work to build a robust system of certifications to serve the skilled workforce needs of manufacturers in my community.

☐ I agree

By checking the box below, I certify that my institution is accredited by an agency or association recognized by the U.S. Department of Education.

☐ I agree

By checking the box below, I certify that there is an active manufacturing employer council at my institution, which I may be asked to document.

☐ I agree

By checking the box below, I certify that to the best of my knowledge, all information and data presented in this form are correct.

☐ I agree

By checking the box below, I understand that I may be contacted to present additional information.

☐ I agree
Post-Application

Institutions will receive a member profile template.

As required, MI will follow up with the institution.

Member Profile Template

*This profile will be updated annually upon renewal from the member

Institution Name:

Point of Contact:

E-mail Address:

Brief Description of Institution:

Manufacturing Programs Offered:

Multiple Campuses:

Website Link (must link to manufacturing programs):
Frequently Asked Questions

- Is there a fee associated with the Alliance?
- What are the expectations of my institution?
- Is there any reporting involved with my membership?
Polling Question #2
Questions and Answers
Technical Assistance Needs Survey

Dr. Audrey Theis
Technical Assistance Provider
Survey Results

Priority Issues/Challenges

- Engaging industry leaders and building demand
- Engaging faculty and college leadership
- Aligning curriculum with industry certification requirements
- Changing the image/deploying Dream It. Do It.
- Sustaining the skills certification system
Survey Results

Groups Needing Technical Assistance

- Employers
- Career Technical Education (CTE) instructors
- Instructional Deans/Department Chairs
- School/College Administrators
Survey Results

- **Value of Technical Assistance Tools**
  - In-person
  - Webinar series
  - Website/tools and resources

- **Value of Proposed New Tools**
  - Employer Toolkit
  - Educator Toolkit
  - Best practices, with contact
  - Peer sharing via conference calls
  - Deep dive on individual topics via conference calls
  - Conference(s)
Next Steps

- Develop Technical Assistance Plan based on survey data and anecdotal feedback

- Key Elements:
  - Revamped website
  - New user-friendly tools, including Employer Toolkit and Educator Toolkit
  - Bi-monthly webinars
  - Bi-monthly topic-specific or audience-specific conference calls (on alternate months from the webinars)
  - Best practices
  - Leveraging the growing talent in the field – YOU!
Schedule of Webinars

Next Webinar Planned for Wednesday, February 13

12:00 p.m. - 1:30 p.m. (Eastern)
11:00 a.m. – 12:30 p.m. (Central)
10:00 a.m. – 11:30 a.m. (Mountain)
9:00 a.m. – 10:30 a.m. (Pacific)

(No Webinar Scheduled in January)