Credentialing the American Workforce

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SENIOR VICE PRESIDENT

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Prepared For: ANSI
U.S. Manufacturing Is Strong

U.S Manufacturing Is 8th Largest Economy

Source: Facts About Modern Manufacturing, 8th Edition

Sources: International Monetary Fund and U.S. Bureau of Economic Analysis
Well Documented Problem
“I advise each of my staff that every worker hired is a million-dollar investment for this company. I’m calculating that most hires are under 45 years old; we intend to keep them for at least 20 years, and our average annual salary/benefits package is $55,000. In other words, we can’t afford to make a mistake—to hire someone without the right skills. Verifiable skills certification programs can make the difference between a good investment and a high-risk.”

Dennis Rohrs,  
Human Resource Manager  
Fort Wayne Metals, Inc.
National Dialogue and Dilemma

Our Education and Workforce Development agenda focuses on implementing quality education reform for the entire continuum:

- Early Childhood
- STEM Foundation in K-12
- Transitioning/Incumbent Workers
- STEM Focus in Higher Education

The Missing Middle: Applied STEM Pathways from High School to Post-Secondary

Foundational skills in English language communication, reading, applied STEM, and workplace competencies such as teamwork, work ethic, integrity, and creativity are necessary for all individuals to pursue any career in manufacturing.
Providing competency-based, customized education and training for the manufacturing workforce...today and tomorrow
Advanced Manufacturing Competency Model

High Quality Middle Class Jobs

Occupation-Specific Certifications

Entry Level Industry Certifications

Ready for Work, Ready for College

Career Paths – Life Long Learning
# Aligning Education, Certification, and Career Pathways for the Welding Industry at Lorain County Community College

## Education Pathway

<table>
<thead>
<tr>
<th>Bachelor of Science/Engineering Discipline</th>
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<tbody>
<tr>
<td>• Ohio State University</td>
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<tr>
<td>• Cleveland State University</td>
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<table>
<thead>
<tr>
<th>Associate in Applied Science</th>
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<tbody>
<tr>
<td>• 66 Credit Hours / Two Years Full Time</td>
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<tr>
<td>• 23 Courses</td>
</tr>
<tr>
<td>Day / Evening Curriculum</td>
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<table>
<thead>
<tr>
<th>One Year Technical Certificate</th>
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<tbody>
<tr>
<td>• 37 Credit Hours / One Year Full Time</td>
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<tr>
<td>• 14 Courses</td>
</tr>
<tr>
<td>Day / Evening Curriculum</td>
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<table>
<thead>
<tr>
<th>Short Term Technical Certificate</th>
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</thead>
<tbody>
<tr>
<td>• 19 Credit Hours / One Year Part Time</td>
</tr>
<tr>
<td>• 8 Courses</td>
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## Certification Pathway

| SME Engineering Technologist             |
|• AWS D1.1 Multiple Processes / CW        |

| AWS D1.1 Multiple Processes / ASME Section 9 / API 1104 / MSSC CPT |

<table>
<thead>
<tr>
<th>Career Pathway</th>
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</thead>
<tbody>
<tr>
<td>• Welding Engineer</td>
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<tr>
<td>• Welding Technologist $35.68 / hour (17-2190)</td>
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</tbody>
</table>

| Manufacturing Engineering Technician     |
|• Welder (Entry Level) $15.84 / hour (51-4120) |

## National Career Readiness Certificate

- Personal Effectiveness
- Academic Competencies
- Workplace Competencies

### High School
- Dual Enrollment - Career Academy – Youth Development Programs

### Out of School/Low Skill Youth/Adults
- WIA/Career Centers - ESL/VESL - GED/ABE
- "Bridge” and Foundation Programs

### Skilled Adults
- Retraining/Lay Offs – Continuing Education
- Company Specific Apprenticeship
Recruiting Students Into STEM Careers

- Promotes understanding of advanced, high-tech manufacturing and its contribution to innovation
- Promotes a modern image of manufacturing
- Promotes strong regional, cluster-oriented, pro-manufacturing partnerships
- Serves as an initial channel into aligned educational pathways in post-secondary education and career pathways
Deployment and National Scope

- States funded by foundation support for deployment of the Skills Certification System (Indiana, Ohio, North Carolina, Texas and Washington)

- States with grassroots efforts advocating for deployment of the Skills Certification System (Alabama, Arkansas, California, Connecticut, Florida, Illinois, Iowa, Kansas, Kentucky, Louisiana, Maryland, Michigan, Minnesota, Mississippi, Missouri, Nebraska, Nevada, New York, Pennsylvania, Tennessee, Wisconsin)

- Sites part of the Dream It! Do It! network
Expanding the Model

Priority Sectors Include:
- Aerospace/Defense
- Automation
- Life Science: Biotechnology, Pharmaceutical & Medical Device
- Construction
- Energy
- Plastics and Composites
- Transportation, Distribution, and Logistics
Championing National Legislation

America Works
A “Win-Win” Scenario

High-Quality Jobs

- Educators
- Workers
- Employers
- Regional Development