

The Stackable Credentials—Which Credentials Are Right For My Company?

	Manufacturers' Needs*	The Best-In-Class Certifications...
Personal Effectiveness	<ul style="list-style-type: none"> Interpersonal Skills Integrity Professionalism Initiative Dependability & Reliability Lifelong Learning 	<p>For Work Ready Candidates</p> <p>The Skills Certification System is grounded on the <i>National Career Readiness Certificate</i> (NCRC). The NCRC, issued by ACT, is a portable, evidence-based credential that measures essential workplace skills and is a reliable predictor of workplace success. This credential is used across all sectors of the economy and measures the following skills:</p> <ul style="list-style-type: none"> Problem solving Critical thinking Reading and using written, work-related text Applying information from workplace documents to solve problems Applying mathematical reasoning to work-related problems Setting up and performing work-related mathematical calculations Locating, synthesizing, and applying information that is presented graphically Comparing, summarizing, and analyzing information presented in multiple, related graphics <p>NCRC Plus</p> <p>Knowledge and skills related to job tasks are the most valid predictors of work performance. When measures of cognitive skills and personality traits are combined, an individual's success in a job or job training can be predicted with even greater accuracy. In addition to the skills listed above, the NCRC Plus ranks individuals in the following soft skill categories:</p> <ul style="list-style-type: none"> <i>Work Discipline</i>—productivity and dependability <i>Teamwork</i>—tolerance, communication, and attitude <i>Managerial Potential</i>—persuasion, enthusiasm, and problem solving <i>Customer Service Orientation</i>—interpersonal skills and perseverance <p>The cognitive and soft skills measured by the NCRC and the NCRC Plus are among those recognized by business and industry as essential for workplace success and career advancement.</p>
Academic	<ul style="list-style-type: none"> Science Basic Computer Skills Mathematics Reading Writing Communication-listening & speaking Critical and Analytical Thinking Information Literacy 	 <p>NCRC Bronze NCRC Silver NCRC Gold NCRC Platinum</p>
Workplace	<ul style="list-style-type: none"> Business Fundamentals Teamwork Adaptability/Flexibility Marketing & Customer Focus Planning & Organizing Problem Solving & Decision Making Working with Tools & Technology Checking, Examining & Recording Sustainable Practices 	

*Competencies defined in the *Advanced Manufacturing Competency Model*.

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**Industry-Wide
Technical**

**Process Design &
Development**

**Production
Maintenance,
Installation & Repair**

Supply Chain Logistics

**Quality Assurance/
Continuous
Improvement**

**Sustainable & Green
Manufacturing**

**Health, Safety,
Security &
Environment**

Industry-wide technical competencies represent the knowledge and skills that are common across all 14 sectors of manufacturing and are required for entry-level or technician-level employment. These technical competencies build on, but are more specific than, the general personal effectiveness, academic, and workplace skills validated with the NCRC. Nationally-portable, industry-recognized certifications acquired in postsecondary education confirm an individual has mastered foundational “hands-on” manufacturing technical skills and understands the basic operational principles of a manufacturing business.

For Certified Production Technicians

The Manufacturing Skill Standards Council’s (MSSC) Certified Production Technician (CPT) certifications verify the student or worker has mastered essential Production modules in Safety, Quality Practices & Measurement, Manufacturing Processes & Production, and Maintenance Awareness. The CPT is applicable to all entry-level jobs in all sectors in manufacturing e.g Chemicals; Computers and Electronic Products; Electrical Equipment and Appliances; Food and Beverage; Furniture; Machinery; Nonmetallic Minerals; Petroleum and Coal Products; Plastics and Rubber Production; Primary and Fabricated Metals; Printing; Textile, Textile Products, Apparel, and Leather; Transportation Equipment; and, Wood and Paper.



Certified Production Technical
Credential Assessments
*Safety
Quality Practices & Measurement
Manufacturing Processes &
Production
Maintenance Awareness*

For Certified Machinists and Metalformers

Skills in the metalworking industry are validated through the National Institute of Metalworking Skills (NIMS) machining and metalforming certifications. The certifications are earned through secondary, postsecondary, and work-based curricula that include both “hands-on” performance and theory tests. Assessments are scored against the 24 NIMS national standards that are modularized to specific skills and competencies. 52 NIMS credentials allow employers to hone their credentialing requirements and choose only those certifications that are applicable to the needs of the company. Because NIMS certifications range from entry level to master level, students can increase their competency over time by stacking the credentials as they pursue higher levels of education and employment. Governed by metalworking company executives, the NIMS standards validate for an employer that a worker has the right skills to perform to quality standards in any entry-level machining or metalworking job.



*Machining Levels 1-3
Metalforming Level 1
Stamping Levels 2-3
Press Brake Levels 2-3
Slide Forming Levels 2-3
Screw Machining Levels 2-3
Die making Levels 2-3
Machine Building Levels 2-3
Machine Maintenance, Service,
and Repair Level 3*

For Certified Welders

The American Welding Society’s (AWS) Certified Welder Certifications are acquired in postsecondary education. The Certified Welder program uses performance-based testing to validate procedures used in the structural steel, petroleum pipelines, sheet metal and chemical refining industries. Upon completion of the competencies, a student receives final certification that includes a welding credential transferable across all manufacturing sectors.



Certified Welder

For Certified Technologists and Engineers

For advanced industry-wide technical skills, the Society of Manufacturing Engineers (SME) offers two certifications. The Certified Manufacturing Technologist (CMfgT) may be acquired through a baccalaureate program of study in manufacturing or engineering technology or a combination of four years academic and work experience. The Certified Manufacturing Engineer (CMfgE) may be acquired through a combination of eight years of work experience and manufacturing or engineering education. Both certifications assess mastery of relevant knowledge and skills. The CMfgT is focused on the fundamentals of manufacturing, while the CMfgE is focused on applied and advanced manufacturing knowledge. The certifications share a body of knowledge that covers: applied math, science & materials applications, product & process design, manufacturing process applications & operations, production system & equipment design & development, automated systems and control, quality & continuous improvement, manufacturing management, and personal effectiveness.



Certified Manufacturing
Technologist

Certified Manufacturing
Engineer

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