Guide to Using MSSC Training and Certification Tools for Front-line Workers in Advanced Manufacturing and Logistics

The industry-led Manufacturing Skill Standards Council has developed a comprehensive training and certification system for the foundational technical skills of front-line workers (entry-level through first line of supervision) in manufacturing production and supply chain logistics.

After a brief background section on the value and uses of this system, this “Guide” provides a description of the system tools used to implement these certifications.

BACKGROUND AND VALUE PROPOSITION

MSSC is an industry-led training, assessment and certification system focused on the core technical competencies needed by the nation’s front-line workers in all production occupations in all sectors of manufacturing and all material handling occupations in all sectors of supply chain logistics (factories, warehouses, distribution centers, transporters).

The nationwide MSSC Certification System offers both entry-level and incumbent workers the opportunity to demonstrate that they have acquired the foundational knowledge and basic technical skills needed in the high-growth, technology-intensive jobs of the 21st century — that they are the agile “Industrial Athlete of the Future.”

In manufacturing, MSSC awards certificates to individuals who pass MSSC assessments in the four critical functions of production — Safety; Quality Practices & Measurement; Manufacturing Processes & Production; and Maintenance Awareness. Individuals who pass all four assessments are certified as a full MSSC-Certified Production Technician (CPT).

In supply chain logistics, MSSC awards a Certified Logistics Associate (CLA) certificate to individuals who pass an assessment in the foundational aspects of supply chain logistics and a Certified Logistics Technician (CLT) Certification who pass an assessment in mid-level technical skills in this field. CLA is a prerequisite for CLT.

For both CPT and CLA/CLT, MSSC has developed a complete set of tools: industry-defined Standards, Courses (in both instructor-led and elearning formats), MSSC Instructor Certification Training, Assessment Center Training, Assessments, Credentials, a national Registry, and a “Diagnostic Tool” that benchmarks a company’s front-line workforce against national standards.

According to surveys of companies using CPT-credentialed production workers, those workers’ scores in several business metrics demonstrate a decisive improvement over non-certified workers, e.g. 77% higher rating in safety, quality, production processes and maintenance awareness; 70% higher in productivity, cycle time reduction, motivation, teamwork, problem solving and behavior; and
80% in terms of company willingness to grant an interview, hire, grant a pay increase or assign supervisory responsibilities.1

USES

Companies and education and training organizations can use MSSC effectively with the following groups:

- **Incumbent Workers** – To benchmark their skills against national standards, identify training gaps, and provide training to fill gaps. MSSC is able to respond quickly to recession pressures by offering rapid, low-cost “Fast Track” courses to help improve productivity and accelerate innovation.

- **Students/Entry-level Workers** – MSSC also provides high schoolers, college students and career changers the opportunity to secure MSSC’s industry recognized credentials. Even in a recession, manufacturers need to build this pipeline to meet the persistent shortage of workers with the right skills and the impact of Baby Boomer retirements.

- **Dislocated Workers** – Since MSSC covers the core competencies of workers in all sectors of manufacturing, workers laid off in one sector can use MSSC credentials to help secure jobs in another manufacturing sector.

ACCESS TO MSSC CERTIFICATION SYSTEM TOOLS

The following describes the individual MSSC system tools that organizations can use with their incumbent workforce. For further details, price sheets and volume discounts, contact Neil Reddy, General Manager, at reddyn@msscusa.org or at 703-739-9000, ext. 221.

**Courses:**

For **CPT**: MSSC offers courses for each of the four production functions (see above) either in a “blended” (part-instructor led, partly on-line) format, requiring 35-40 hours each or in a fully online “Fast Track” format requiring 15-18 hours each. The first is designed for students, the second for incumbent workers. Since workers can take “Fast Track” courses on their own time and at any location with a DSL line, most companies will likely prefer that their production workers take “Fast Track” courses. MSSC issues a password and user name to each registered trainee.

For **CLA/CLT**: MSSC offers courses for CLA and CLT in a “blended” (part-instructor led, partly on-line) format, each requiring 16-20 hours. MSSC issues a password and user name to each registered trainee.2

Since these courses are relatively brief, companies may wish to use them directly with their incumbent workers to gain foundational skills and CLA/CLT credentials rapidly. Schools may wish to use them as introductory courses in supply chain logistics (e.g, SCL 101 and SCL 102) and also as the starting point for longer courses adding more detailed material.

**Instructor Training**: MSSC provides separate intensive, 3-day Instructor Certification Training programs, one for CPT and one for CLA/CLT. This training equips instructors with methods for teaching MSSC courses in different learning environments, including instruction on using the MSSC Learning Management System (LMS) to track the progress of each student.

Extensive “Instructors Packages” are provided for both the CPT and CLA/CLT instructor training. MSSC requires any institution using its courses to either have an MSSC-trained instructor available

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1 These survey findings related only to CPT credentialed workers. Since all CLA/CLT system tools will not be finalized until July 2009, MSSC will not begin its surveys of CLA/CLT credentialed workers until fall 2009.
2 Ready for national use summer 2009
or to purchase the Instructor’s Package. For CPT, MSSC also strongly encourages the assignment of an MSSC-trained instructor to coach all trainees going through the fully online “Fast Track” course. Companies using MSSC-trained instructors as “coaches” will need to negotiate with the trainer specific fees with the trainer for this service.

MSSC offers CPT Instructor Training at its central training facility in Indiana and CLA/CLT Instructor Training at its central training facility in Fort Worth on a regular basis. Out-of-state trainees are required to cover their own travel and subsistence costs. If six or more trainees are available at a given time at a location outside of the IN or FW training centers, MSSC will send a Master Trainer to that location at MSSC expense.

Individuals that receive the CPT or CLT Instructor Certification should have prior experience in education or training in their respective areas and must secure full CPT or CLT certification prior to enrolling in training.

Companies not wishing to qualify an MSSC-trained Instructor of their own may also work with area community-technical colleges that have MSSC Instructors on campus.

**Textbooks:**

For CPT - Glencoe McGraw-Hill and MSSC have collaborated on a well-illustrated, 444-page textbook—High-Performance Manufacturing: Portable Production Skills—to help individuals understand the principles of advanced, high-performance manufacturing, gain the required skills and knowledge, and in combination with MSSC online training, help succeed on MSSC Assessments. However, this textbook should be used in combination with the online courses, since the latter contain more of the technical material that helps trainees be more successful on MSSC Assessments. These textbooks can be ordered directly from Glencoe McGraw-Hill.

For CLT - MSSC has authored and published separate textbooks for both CLA and CLT. They are supplemented by an elearning version that is a significant aid to students/trainees both in enhancing their knowledge and in preparing for the certification assessments. The textbooks and elearning portion are available only in the context of the CLA/CLT courses themselves.

**Assessment Center Training:** MSSC offers its national certification assessments only at MSSC-certified Assessment Centers or, for high schools students, at NOCTI-registered high school sites. Most MSSC-Certified Assessment Centers are located at two-year colleges or at Workforce Boards. Companies that prefer to offer assessments at their own sites must first take MSSC Assessment Center Training, which creates a rigorous environment for secure test-taking.

Companies not wishing to establish their own MSSC Assessment Center may use other MSSC Assessment Centers in their area. Companies should work with those schools to determine whether they will send proctors to the company site to deliver the assessment or whether the company will send workers to the school for that purpose. If proctors from an MSSC-Certified Assessment Center come to the company site, they may ask a fee of their own to cover the proctor’s time and out-of-pocket costs. It is the Proctor’s responsibility to coordinate with the company site to ensure that they have the requisite secure environment and IT capability to deliver the MSSC on-line Assessments.

**Assessment Registration:** Each individual wishing to take an MSSC assessment must pay a one-time registration fee. There is a separate fee for both CPT and for CLA/CLT assessments. MSSC serves as the repository of individual assessment and credentialing records, issues MSSC credentials, and includes credentialed individuals on the e-mailing lists CPT and CLT “Community Updates”.
Assessments: MSSC offers assessments for each module in both CPT and CLA/CLT. Delivered online, each assessment contains 70-90 questions and takes 75-100 minutes to complete. Test scores and pass/fail data are provided to individuals immediately upon completing an assessment. This instant feedback includes a diagnostic report showing how the individual scored on the 10-12 key work activities within that module.

This information is intended for self-improvement and is provided to all test-takers whether they pass or not. An individual may take an assessment as many times as desired, but with a minimum of thirty days between assessments. Scores will be provided directly to the individual, but not to the company, assessment center or teacher, unless the individual signs a release form authorizing MSSC to share these scores.

Note: MSSC Assessments are rigorous, with substantial training and/or experience required to meet the cut scores. For this reason, MSSC strongly encourages most individuals to take MSSC Courses (described above) prior to taking Assessments. It should be noted, however, that MSSC has no formal training or experiential requirements for individuals for MSSC assessments or certificates.

Credentials: MSSC credentials certify that individuals that meet the “cut” score for individual modular assessments. MSSC issues a Certificate to all individuals who pass a module. An individual passing all four CPT modules or both the CLA and CLT modules receives a full, diploma-size “MSSC Certified Production Technician” (CPT) Certification or “MSSC Certified Logistics Technician” (CLT) Certification, respectively as well as a blue-and-gold arm patch and a wallet card.

MSSC includes with these certificates an “MSSC Assessment” document, suitable for sharing with an employer, which lists the skill and knowledge areas covered by MSSC Assessments. MSSC Certificates are valid for five years. An individual has two and a half years to complete all four assessments to be eligible for the full MSSC CPT credential or to pass both assessments to be eligible for the full CLT Certification.

There is no charge for MSSC credentials, the costs of which are covered by the one-time registration fee described above. Note: MSSC will charge $10 per copy for reproduction, handling and mailing of each replacement or additional copy requested by credentialed test-takers.

Diagnostic Tool for Employers: MSSC offers a “Diagnostic Tool for Employers” enabling a company to benchmark its production workforce against national averages on the Key Work Activities within each of the standards-based MSSC Assessment Modules for CPT and CLA/CLT. Due to legal requirements to protect the scores of individual workers, MSSC prepares this report on the basis of 10 or more workers per modular assessment. This tool is an authoritative, independent reference point for a company to determine the strengths and weaknesses of its workforce in the core competencies of production and to set training priorities.

3 CLA/CLT Diagnostic Tools ready for national use summer 2009.