

March 2017

Community College Consortium Develops Training Program That Embeds Industry-Recognized Credentials

- Working collaboratively with industry partners to identify employer needs
- Utilizing the Advanced Manufacturing Competency Model as a framework for career preparation
- Developing customized training to prepare individuals for manufacturing-related occupations

Introduction

The Michigan Coalition for Advanced Manufacturing (M-CAM), the recipient of a Trade Adjustment Assistance Community College and Career Training (TAACCCT) grant, is preparing individuals for long-term careers in advanced manufacturing industries. M-CAM, a collaborative effort comprised of eight Michigan community colleges, has developed training programs in CNC/Machining, Multi-Skill/Mechatronics, Welding, and Production Operations that embed industry-recognized national credentials.

Macomb Community College serves as the lead institution for the Consortium. The other members are Bay College, Kellogg Community College, Lansing Community College, Lake Michigan College, Grand Rapids Community College, Schoolcraft College and Mott College.

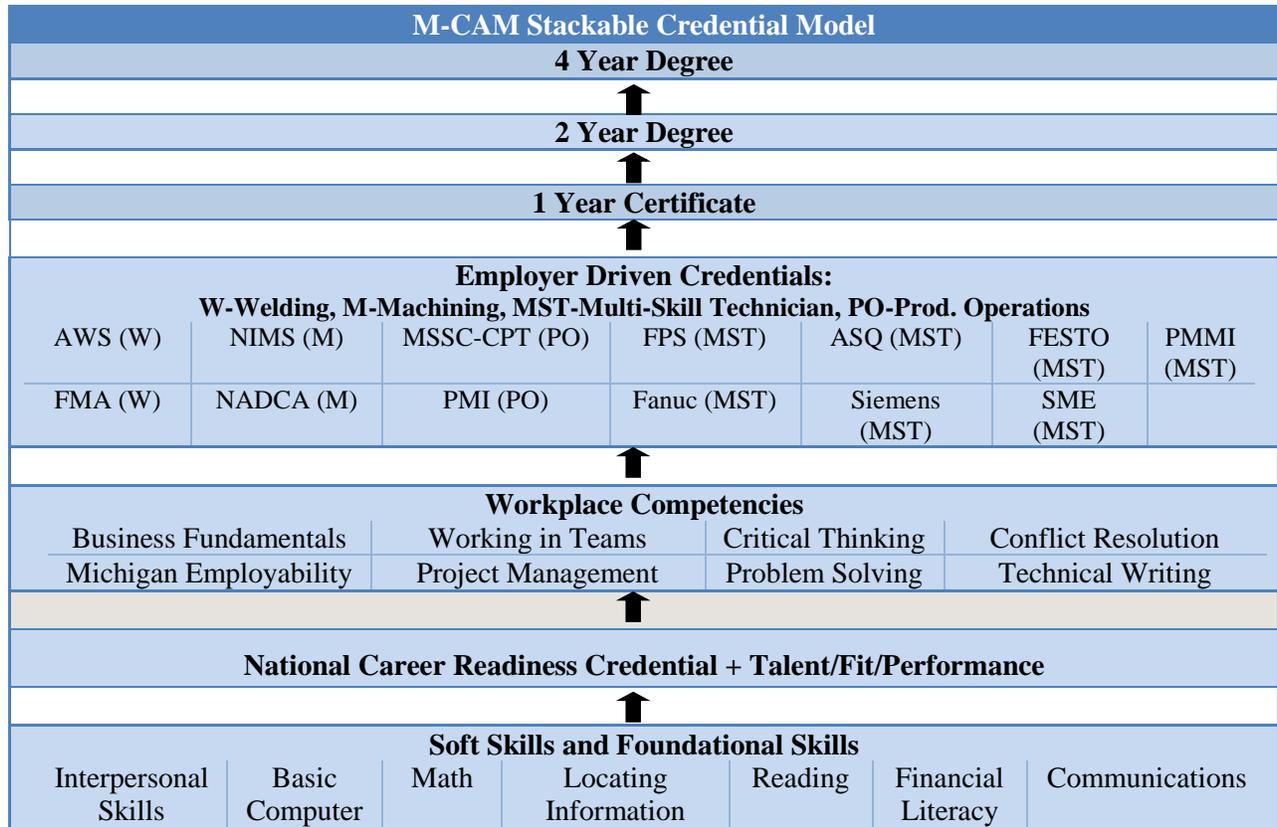
The Workforce Need

From a national perspective, the outlook for manufacturing-related occupations is strong, particularly as workers attain industry-recognized credentials. National employment projections from the Bureau of Labor Statistics indicate that employment opportunities for machinists will increase by 9.8 percent between 2014 and 2024, greater than the average of 6.5% for all occupations. The data also indicates that employment opportunities for computer-controlled machine tool operators will increase by 17.5% from 2014 to 2024, significantly more than the national average for all occupations.¹ Furthermore, openings due to replacement needs will provide additional opportunities in other manufacturing-related occupations.

Approach

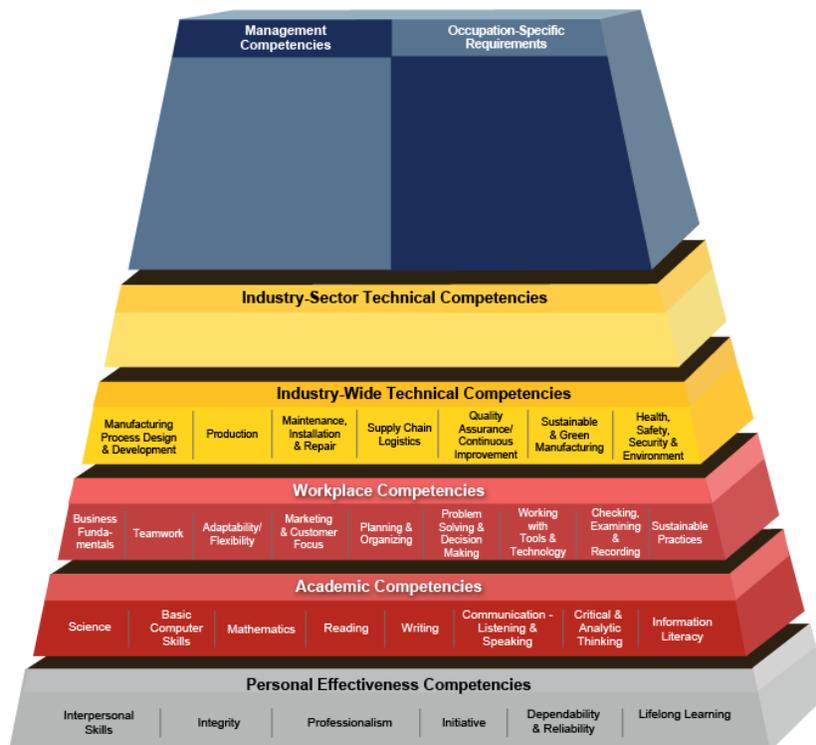
“Macomb College has had previous grants from the U.S. Department of Labor, Employment and Training Administration (ETA) that focused on preparing individuals for careers in advanced manufacturing,” says Holger Ekanger, Workforce and Continuing Education Director, Engineering and Advanced Technology. “The TAACCCT grant enabled us to work with other community colleges to fine tune and tweak what we were previously doing independently. Our goal was to embed national certifications into all programs of study. We worked with a number of partners to achieve this goal including the National Association of Manufacturers, Manufacturing Institute, over 400+ local and national employers, Michigan Works! Association, Macomb County Department of Planning and Economic Development, and Michigan Economic Development Corporation. Our goal was to get these partners engaged in our program and to validate what we are doing. As a result of these deliberations, we developed the M-CAM Stackable Credential Model which was derived from Tiers 1-3 of ETA’s Advanced Manufacturing Competency Model.”

¹ Bureau of Labor Statistics, Employment Projections https://www.bls.gov/emp/ep_table_102.htm



For more information on the Employer Driven Credentials above, see the links to M-CAM Career Pathways in Related Links below.

ETA’s Advanced Manufacturing Competency Model



Next Steps

“We’ve had great wins, across all eight colleges,” says Mr. Ekanger. “It’s clear that it’s not just about technical training. People need the soft/foundational skills and workplace competencies as delineated in our Stackable Credentials Model.”

The TAACCCT grant enabled the Consortium to build the capacity and the infrastructure to respond to the fast changing needs of industry. The member colleges are committed to developing a sustainability plan to maintain this initiative after grant funding ends in September 2017.

The eight community colleges that comprise the Michigan Coalition for Advanced Manufacturing (M-CAM) signed an articulation agreement, marking the first time in the state’s history that community colleges have agreed to align transfer credit among their advanced manufacturing programs. The agreement supports student mobility, giving them the ability to apply credits earned through an M-CAM program at any one of the Coalition colleges, and encouraging continued education and training for ongoing advancement.

“M-CAM has created vital pathways for individuals to earn industry credentials and connect with employers in Michigan’s advanced manufacturing sector,” says James Jacobs, President, Macomb Community College, which is leading the Coalition. “This articulation agreement takes M-CAM’s impact a step further by making the credit that program graduates earn portable within the Coalition, enhancing their ability to pursue further education and credentials, supporting career progression.”

Related Links

Michigan Coalition for Advanced Manufacturing
<http://www.m-cam.org/>

Macomb Community College Engineering & Advanced Technology
<http://www.macomb.edu/business/workforce-development/engineering-advanced-technology.html>

M-CAM Career Pathways:

- Welding pathway: <http://www.m-cam.org/pathway-welding.html>
- MST/Mechatronics pathway: <http://www.m-cam.org/pathway-mech.html>
- CNC/Machining pathway: <http://www.m-cam.org/pathway-cnc.html>
- Production Operations pathway: <http://www.m-cam.org/pathway-operations.html>