

## Monroe County Community College Offers Accelerated Welder Training Programs

*New AWS-based programs offer fast tracks for students to study entry- and advanced level welding*

BY HOWARD M. WOODWARD

The 210-acre main campus of Monroe County Community College (MCCC), has been serving the community since 1967. It is a two-year institution located near the city of Monroe, Mich., with convenient access to Detroit and Toledo, Ohio. The college's Whitman Center, in Temperance, Mich., near the Michigan-Ohio border, was established in 1991. Completed in 2006, the La-Z Boy Center is the newest building on campus, named for the Monroe-based company that financed its construction. It houses performing arts classes and the 150-seat Meyer Theater used for concerts and staged performances.

The college offers accelerated welder training programs and a two-year associate of applied science degree with specialization in welding technology. It is accredited by the Higher Learning Commission and is a member of the North Central Association. Currently, the college serves approximately 8500 credit and noncredit students each year. The college recently received a grant from the Department of Labor under the Community Based Job Training Grant category for about \$1.8 million to train welders to American Welding Society (AWS) specifications.



*Fig. 1 — Making it happen at Monroe County Community College are (from left) Justin Schmidt, welding assistant professor; Ken Matson, welding lab technician; Joe Czapiewski, welding grant coordinator; and Cameron Albring, welding grant program assistant.*



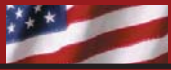
*Fig. 2 — Monroe County Community College's first class of accelerated ten-week welding students pose for a group shot.*

### The Welding Staff

The accelerated welding technology

program staff (Fig. 1) includes Joseph Czapiewski, welding grant coordinator;

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Cameron Albring, welding grant program assistant; Justin Schmidt, welding grant assistant professor; and Schools Excelling through National Skills Education (SENSE) student affairs representative for the AWS Detroit Section; and Ken Matson, welding lab assistant.

The AWS SENSE program promotes the dissemination and implementation of seven comprehensive hands-on welding projects to ensure that each student meets the guidelines for welder training in two areas: Level I, which is designed for application at Grades 10–12 or entry-level training; and Level II, which is designed for two-year career and technical education programs or for those who already have welding experience. A majority of MCCC's students have been able to successfully complete each project within ten-weeks (Fig. 2). Students who do not meet the eligibility requirements to participate in the program are offered an eight-hour, noncredit Foundational Skills Boot Camp based on the WorkKeys® job skills assessment system. The Boot Camp is designed for students who want to hone their skills in applied mathematics, reading for information, and how to locate information. Those successfully completing the Boot Camp training receive National Career Readiness Certification.

The college offers a general education program for students seeking careers in a vocational field and for those who plan to transfer to a four-year university. School officials have noted a growth in industrial manufacturing that has resulted in a relatively steady demand for skilled, qualified welders in the area who are able to advance with the industry.

For this reason, MCCC implemented

in September 2009 the accelerated welding technology program designed to train future welders using the latest technologies and safety standards they will need to succeed in industry in a ten-week 250-hour format. The accelerated welding technology program offers both beginning and advanced programs.

The beginning welder training program is an accelerated hybrid of the college's traditional program that culminates in students completing the requirements specified in the AWS document QC-10, *Specification for Qualification and Registration of Level I — Entry Welders* certification examination.

The advanced welder training program prepares students to fulfill the requirements of QC-11, *Specification for Qualification and Certification for Level II — Advanced Welders*.

In both programs, students learn how to set up welding machines and how to make various weldments on a wide variety of metals. The welding procedures presented include gas metal arc welding (GMAW), gas tungsten arc welding (GTAW), shielded metal arc welding (SMAW), flux cored arc welding (FCAW), and oxyfuel cutting (OFC).

After completing the QC-10 and QC-11 certifications, the graduates qualify for entry into advanced-level employment, self-employment, and local welding labor unions. The examinations for both programs are offered at the college.

Teaching the welding program is Assistant Professor Justin Schmidt — Fig. 3. Schmidt holds a bachelor's degree in welding engineering technology from Ferris State University and several certifications in the welding field including robotics. He has five year's experience as a welding and robotics engineer at L&W

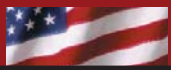
Engineering based in Blissfield, Mich. Schmidt's goal is to help his students earn their QC-10 and QC-11 certificates.

These training include welding safety and occupation orientation; welding symbols and weldment design; SMAW in all positions on carbon steel plate; GMAW in all positions on carbon steel plate; FCAW in all positions on carbon steel plate; GTAW on carbon steel, stainless steel, and aluminum plate; manual oxyfuel gas cutting operations, including washing techniques; and manual plasma arc cutting operations.

Upon successful completion, students earn 12 credit hours and the AWS QC-10 certification. To earn the AWS QC-11 certification, the students are required to study industrial awareness; SMAW in all positions on carbon steel pipe; GTAW in all positions on carbon steel tube and stainless steel tube; and GTAW in all positions on aluminum tube. Upon completion, students earn 12 credit hours and the AWS QC-11 certification.

## Equipment

Grant funds were used to purchase equipment to establish a state-of-the-art, cross-categorical welding lab outfitted with a range of welding processes available to each student at each welding booth to help maximize the overall lab experience. The new equipment includes a CNC plasma/oxyfuel cutting system, Ironworker shear machine, 21 welding machines, and a guided bend tester. The CNC plasma/oxyfuel cutting system and Ironworker shear are used by the students to produce desired shapes from bulk steel, aluminum, or other metals that are then used to complete their welding assignment.



Additionally, a complete electrical renovation of the welding lab was completed to enable the equipment to perform various combinations of welding processes on a variety of metals with just the flip of a switch.

## Academic and Career Pathways

Successful completers of the WELD-115 program earn QC-10 Entry-Level certification, 12 credit hours, and are prepared for employment. At this point, students have the option to continue their studies in the WELD-215 program to earn the AWS QC-11 Advanced-Level Certification, 12 credits, and continue further to earn the associate's degree in welding technology.

Joe Czapiewski stated, "We also wanted to make our welding grant students aware of the career pathway and the many options available to them at MCCC. After you complete your associate's degree, you can then transfer to a four-year college. We have a 2+2 agreement with Eastern Michigan and Ferris State University to earn a bachelor's degree."

The courses MCCC offers toward the associate's degree in welding are:

WELD 100 - Introduction to Welding Processes

WELD 101A, Introduction to GMAW

WELD 101B, Basic SMAW

WELD 101C, Arc Applications

WELD 102 , Advanced SMAW

WELD 102A, Multipass Arc Welding

WELD 102B, Code Welding Techniques

WELD 102C, Multipass Pipe Fillet Welding

WELD 103, Weldment Evaluation and Testing

WELD 104A, Introduction to GTAW

WELD 104B, Introduction to GMAW

WELD 104C, GTAW-Stainless Steel

WELD 104D, GTAW — Aluminum

WELD 105, Welding Metallurgy

WELD 106, Basic Pipe Welding

WELD 106A, Pre-Pipe Welding Skills

WELD 106B, SMAW Pipe Welding — Uphill

WELD 106C, SMAW Pipe Welding — Downhill

WELD 110, Welding Symbols and Blueprint Reading

WELD 114, GMAW and GTAW Applications


WELD 216, Basic Pipefitting

WELD 240, AWS Qualification/Cert-Entry Level

WELD 250, AWS Qualification, Certification — Advanced Level.

With the increasing number of welders in training at MCCC who are in the grant-funded program and also working toward their associate of applied science degree with specialization in welding technology, the Industrial Technology Division has implemented a new course, TECH 296, Special Topics — Art Welding. This course is designed for amateur welding and blacksmith enthusiasts. Students learn to fabricate decorative iron and metal constructions that can be both practical and ornamental.

Another important feature of the MCCC program is the individual progress, audio-tutorial approach to mastering welding skills. Students may come in and, within certain parameters, progress at their own rate of speed. This allows students to complete course requirements based on their own ability rather than being locked into a set rate of progress for a given class.



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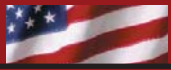
Contact Joe Czapiewski  
Welding Grant Coordinator  
(734) 384-4145  
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Student Justin Sommers (left) and Justin Schmidt, welding professor, discuss a class project in the MCCC welding lab.

## What's New

The college's welding lab is approximately 1940 sq ft with 21 welding booths; the college is in the process of searching for a facility to increase its ability to train more welders. Also new at the college is a construction management technology certificate program with specialization in heavy and industrial construction. This program is designed for experienced construction personnel who wish to upgrade their skills to gain management positions with large industrial employers. The goal of the 31 credit-hour



course is to standardize and enhance the skills and knowledge students need to succeed in industrial careers. The courses include construction blueprint reading, safety, planning and scheduling, construction estimating, statics and strength of materials, construction documents and law, surveying, mechanical drafting, computer-aided design for architecture, and intermediate algebra.

## Partnership with Wind Power

Monroe County Community College has formed a training partnership with Ventower Industries, a 115,000-sq-ft wind tower manufacturing facility located in the Port of Monroe area.

Parmeshwar (Peter) Coomar, dean of the Industrial Technology Division at MCCC, said the division would initially provide training for Ventower in areas such as welding, instrumentation control, and hands-on manufacturing. The Business Division houses programs in areas such as accounting, administrative, professional, and computer information systems, while the CCS Division offers customized training programs in a variety of technical and management areas.

Gregory Adanin, CEO and president of Ventower, noted, “We are looking to continually develop and strengthen our relationship with Monroe County Community College in order to create an industry-specific arena and pipeline through which students can be trained, retrained, certified, and subsequently employed by our company.”

David E. Nixon, MCCC president, said, “Ventower is a full-service fabricator and supplier of industrial scale, wind turbine towers. Focused on original equipment manufacturers, the company

will provide wind towers to customers throughout the Great Lakes region by using readily accessible waterborne, rail, and truck transportation options. Earlier this year, Ventower was awarded an Advanced Energy Manufacturing Tax Credit for clean energy manufacturing projects across the United States under the American Recovery and Reinvestment Act of 2009.” Nixon added, “Ventower represents the green energy jobs of the future. This is Monroe County’s first major venture into clean energy, and MCCC is honored to be a training partner.”

## Career Opportunities

More than 20 recent graduates of MCCC’s new Welding Center of Expertise program have secured full- or part-time employment upon completion of their ten-week entry-level and advanced-level welder training programs. Various local companies in Michigan have added MCCC students to their workforces, including Advanta Industries; Bar Processing; Fed-Ex; Faurecia; Mac Steel; Ort Tool & Die and Great Lakes Ariel Tower.

These students were part of our fall and winter training courses. Through a combined effort from the Welding Grant Staff and the Office of Workforce Development at MCCC, students were able to build résumés, learn interview-preparation skills, and the fine art of job hunting.

Derek Slominski, an MCCC welding student said, “I heard about the welding grant accelerated classes through the MIWORKS! ([www.miworks.org](http://www.miworks.org)) office and I wanted to improve my welding career and job availability. The AWS

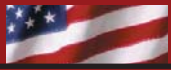
certification learning process is what is motivating me and the fact that I never want to stop learning. I’m learning better welding techniques as well as a better understanding of the quality of weld. And Justin Schmidt is a good teacher. He is teaching us what AWS requires by assigning us chapters each night. I needed the Boot Camp. Boot Camp was a refresher for me. It was good to refresh my study skills. I have been out of school for 23 years so it helped me out a lot to get ready for the Weld 115 class.”

## Job Placement Support

The Office of Workforce Development at the college offers students, alumni, and Monroe County residents free assistance in locating employment opportunities in the area. The office provides information regarding available part- and full-time, permanent, and temporary positions in a wide variety of occupations. Also available are student assistant positions. All job seekers can register for this service using the college’s online candidate registration form. Upon registration with the Workforce Development Office, job seekers can obtain job information referrals, request mailing of credentials packets to potential employers, and have access to a variety of job-seeking skills seminars and reference materials. The service also permits area employers free access to post their jobs and to contact qualified candidates registered with the office, and they can advertise their job openings on the Job Posting Form.

## Unique Tuition Base

The college’s tuition not based on



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credit hours, it is based on contact hours as determined by the amount of time the student spends in direct contact with an instructor, laboratory equipment, or other instructional setting. The current rates per contact hour are \$78 for Monroe County residents, \$130 for out of county students; and \$144 for out of state students. The college notes that charging by billable contact hours more fairly distributes the cost of instruction so those students who receive extra instruction will pay for the extra hours.

There are a variety of ways MCCC students receive help in paying tuition, including grants, work-study, scholarships, payment plans, and loans. To find out more about these options contact the Financial Aid Office (734) 384-4135.

Prospective students can download application materials for the program at [www.mcccweldcoe.org/Application.htm](http://www.mcccweldcoe.org/Application.htm).