Sponsored by Kuder, Inc., the Career Pathways Partnership Excellence Award emphasizes the importance of career guidance and advising, professional development for educators and employers, and the employer role in providing work-based learning opportunities for students. To apply for the 2016 award, visit www.ncpn.info.
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This booklet provides short descriptions of this year’s winning program, two programs that received honorable mention, and seven programs recognized as promising practice sites.
FLATE’s versatile career pathway for the Engineering Technology (ET) Degree program integrates the national Manufacturing Skill Standards Council (MSSC) certification, creating an educational model designed to meet Florida’s need to increase its advanced manufacturing workforce. The ET program provides a variety of entry points for college and career pathways and articulates 15 college credit hours for holders of a current MSSC credential. Secondary students have curriculum and testing options to earn the MSSC credential and either enter college with 15 credit hours toward the ET major or be ready to work in good paying, high-skill jobs. Veterans and other adult learners have opportunities to earn the credential as part of the ET program, or through testing and continuing education opportunities.

The program’s statewide articulation agreement has become a model for other CTE programs. FLATE developed and maintains the alignment of ET curriculum to the MSSC external standard in partnership with the Florida Department of Education (FLDOE) and Florida’s manufacturing employers. Employers work with ET program advisors to provide job opportunities through FLATE’s “Hire an ET Grad” online connection.

Since 2007, 17 of Florida’s 28 community and state colleges have adopted the ET Degree program, and a 2014 state-level reported sample found 73% of ET graduates employed. Outreach to students through FLATE’s signature “Made in Florida” tours to advanced manufacturing facilities has impacted thousands of middle and high school students. FLATE’s program has been instrumental in seeding programs in Florida and nationwide, and shares its knowledge through a series of Best Practice Guides.

FLATE has established recurring summer experiences for educators in addition to workshops offered throughout the year. “Hands on and high-tech” training and experiences offered in FLATE professional development workshops are provided statewide and at national and international venues.

FLATE’s “Made in Florida” (MIF) tours have served over 3,500 students, visiting over 100 Florida manufacturing sites. Employer partners support FLATE’s Summer Robotics Camps, which have served over 1,000 girls and boys since 2005.

For more information, contact Marilyn Barger at mbarger@hccfl.edu.
HONORABLE MENTION

Dual Enrollment Academy (DEA), Tool and Die/CNC Pathway, Waukesha County Technical College

DEA is a comprehensive career pathway program offered to high school seniors with a career interest in the manufacturing industry as tool and die machinists/CNC operators. The goal is for students to complete the first credential along the career pathway and to support their continuation of the pathway, while also filling the immediate need of our local manufacturing partners for skilled employees.

DEA is a collaboration involving Waukesha County Technical College (WCTC), eight local industries, and thirteen high schools.

The career pathway curriculum, delivered over two semesters, includes a total of 22 college credits, which converts to 5½ high school credits. Curriculum and activities are developed and reviewed by WCTC in collaboration with WCTC advisory boards and are approved by the WCTC district board. The curriculum offered to students in DEA consists of the same courses that are offered to traditional college students enrolled in the Tool and Die/CNC program, with the same expectation of student learning.

Students spend four hours each morning at WCTC, and secure second-shift and/or weekend employment during the school year at manufacturing facilities that allow them to apply the technical skills they are learning at WCTC. Students return to their high schools each afternoon for one or two hours to take core classes required for graduation. Students also work 15–20 hours per week.

For more information, contact Sandra Maylen at SMaylen@wctc.edu.

HONORABLE MENTION

Youth CareerConnect (YCC) Integrated Technology Education Program (ITEP), Ivy Tech Community College, Kokomo Region

Indiana is a national leader in automotive and manufacturing industries, and the Kokomo Region is a center of automotive and manufacturing in the state. A major concern of Indiana’s manufacturing industry is the gap between the number of skilled workers needed and the number available, now and in the foreseeable future.

The YCC/ITEP program seeks to meet that need by providing awareness of careers in advanced manufacturing and manufacturing technology relating to technical occupations such as industrial automation, industrial electrical, industrial mechanical, process operations, quality assurance, logistics and supply chain, precision machining, and welding.
The program is implemented through the collaboration of Ivy Tech Community College – Kokomo Region (lead institution), ten area school corporations partnering through traditional high schools, and three area career centers, along with FCA Fiat Chrysler and other employer partners and regional economic and workforce development entities.

The program’s curriculum embeds industry certifications (CPT, NIMS, AWS, AQS) and is offered through dual credit.

YCC/ITEP initiative is employer driven. In addition to providing members of industry advisory boards, employers have provided site tours, technology field days, mentoring of classroom teachers, supplies, subject matter expertise, and internships for high school teachers.

Because the program is still relatively new, outcome measures are far from complete. However, short-term results indicate that the program is thriving and will accomplish its purpose.

For more information, contact Janice Bailey at jabailey@ivytech.edu.

Promising Practice

Advanced Manufacturing Technology Program, Ranken Technical College

Ranken Technical College’s Advanced Manufacturing Technology (AMT) program was designed to meets the needs of its students and those of manufacturers in the St. Louis area. These companies depend on high-tech, digitally controlled equipment and on employees who can operate, troubleshoot, and maintain it. Ranken’s goal is to supply well educated, highly trained employees to companies who have implemented team-oriented design, production, quality, and maintenance systems.

AMT is a four-semester program resulting in an Associate of Technology (AT) or Science (AS) degree, or a Certificate of Technology. The AT course of study requires 52 hours of Advanced Manufacturing training and education and 27 general education hours. Certificates require six hours of general education in addition to field-specific training and intern hours.

Ranken’s instruction model provides students with work experience, industrial training, college credit and/or part-time salary. Students participate in a four-semester instructional sequence, each semester consisting of integrated sequences of eight weeks in the classroom and eight weeks of training in a production facility.

Students who participate in the in-house (microenterprise) work cells achieve a “green belt” in Kaizen “lean manufacturing” principles and techniques, while senior students participate in the operation of the work cell in areas of logistics, human resources, finance, and quality assurance.

For more information, contact Don Pohl at dpohl@ranken.edu.
Promising Practice

**Marine Skilled Trades Training Collaborative, Virginia**

A shared vision, shared resources, and commitment are the cornerstones for this model of a regional business-industry-government collaboration that leveraged resources and resulted in permanent jobs starting at $32,000 with full benefits after two to three weeks of training for 363 previously unskilled workers in Southeastern Virginia.

A partnership was formed as a result of a comprehensive study of the need for a workforce in the skilled trades, The Skills to Succeed Inventory, conducted by the Peninsula Council for Workforce Development and Thomas Nelson Community College. The study revealed a need for 5,900 workers in four manufacturing occupations 2012 to 2016. One employer needed a majority of these workers. Although based in one college’s service region, the Virginia Peninsula, the employer and the college quickly recognized that a pool of workers was needed from the entire Hampton Roads region to meet the needs for entry level marine skilled tradesmen.

In 2012, under the leadership of Thomas Nelson, the Marine Skilled Trades Training Collaborative was formed with the employer, five community colleges, the state system office, and an NSF advanced technology center. Over the following three years, the Collaborative developed and delivered four courses to fill demand for marine electricians, marine painters, outside machinists, and marine welders training. The program placed 363 previously unskilled workers in permanent positions after 80 to 120 hours of intensive training.

For more information, contact Deborah Wright at wrightd@tncc.edu.

Promising Practice

**Elkhorn Area High School’s Engineering Design and Development Program, Wisconsin**

The Elkhorn Area School District (EASD) Engineering Design and Development course/program is designed to provide area students with access to high-quality instruction in an industry setting. It also provides the opportunity to earn college credit and develop relevant skills as they work in teams, network with industry experts, and design and develop working prototypes of solutions to real needs in the marketplace. The prototypes created can lead to patentable products.

Milwaukee School of Engineering (MSOE) provided the industry teacher with the training necessary to establish and deliver the course. They also provide college credit to the students upon completion of the course and passing the final exam. EASD paid all costs associated with training the
teacher. Precision Plus, the teacher’s employer and our primary community partner for the program, pays the teacher’s salary while at training and while delivering the course. They also provide the program with the instructional classroom and access to their equipment.

The curriculum requires student teams to research and develop prototypes for previously unmet needs. This requires study of numerous disciplines and partnering with industry experts. Upon completion of their products, students meet with patent lawyers to determine whether their products are patentable.

Students attend the course 1–2 nights per week for 3–4 hours each session. Time spent at the worksite provides exposure to workplace opportunities in manufacturing and engineering.

For more information, contact Jason Tadlock at tadlja@elkhorn.k12.wi.us.

Promising Practice


Our Healthcare Career Pathway ensures that students are gaining fluency and accuracy in English through the medium of health content and healthcare workplace contexts. Our ultimate goal is to expedite access to career opportunities for students with intermediate English proficiencies by preparing them with the language and skills they need for certifications and workplace demands.

This pathway grew from a vision in 2011 to a plan in 2012 when we created our pathway roadmap. At that time, students who wanted to become certified nursing assistants (CNA) were required to complete our ESL Level 8 course (NRS Advanced) to enter the CNA program. Completion of L8 served to ensure that students could meet the language demands of the textbook, the certification exam, and the workplace.

However, we knew that students needed and wanted to enter healthcare careers earlier in their education. In order to provide those opportunities at an earlier entry point, we had to make some programmatic modifications. Inspired by Washington State’s I-BEST model (SBCTC, 2013), we created a career pathway roadmap with content and context-specific language support starting at ESL L4 (NRS Low Intermediate). Our roadmap included bridge-course objectives and milestones, and culminated in a co-taught CNA course for students with intermediate levels of English proficiency. Two intermediate-level ESL-for-Health courses serve as a bridge to the CNA co-taught by an ESL instructor and a registered nurse instructor.

For more, contact Heather Tatton-Harris at hharris@carlosrosario.org.
Promising Practice

Business, Marketing and Finance Program of Study, Birdville Independent School District

Birdville Independent School District’s Business, Marketing and Finance program offers a wide variety of business-related courses that allow students to receive certifications such as Microsoft and Adobe. Students also have the opportunity to train in local businesses that are Northeast Tarrant County Chamber of Commerce members. We also participate in the Northeast Tarrant County Leadership program and serve on the chamber of commerce B.E.S.T. (Business Education Success Team).

Recently BISD welcomed Unity One Credit Union to the Birdville Center of Technology and Advanced Learning. Unity One assists students with financial literacy and participates with student internships while offering financial services to the community at this new branch location. Dual Credit Accounting is another way students are able to learn accounting principles in high school while earning college credit.

We also partner with the University of North Texas; Birdville ISD’s Business, Marketing and Finance students participate in a Business Leadership Academy at the UNT campus. The Departments of Management, Marketing; and Logistics; and Finance, Insurance, Real Estate, and Law offer sessions and activities to participants. Students also participate in the integration of functional content and a hands-on case study workshop. UNT presents a certificate to the students at the end of the Business Leadership Academy.

For more, contact Allison Vinson at allison.vinson@birdvilleschools.net.

Promising Practice

Mare Island Technology Academy, Vallejo, California

Mare Island Technology Academy is a diverse, urban, 800-student 6-12 independent charter school located in northern Vallejo. MIT specializes in technology, innovative instruction, and project-based curriculum. In 2014 MIT was one of the top-performing secondary schools in the combined Napa-Solano County area.

Though technically two different schools, with separate charters, the middle and high schools work closely to provide an articulated, integrated curriculum that, combined, offers certifications in Microsoft Office, Adobe, and four distinct technology pathways—programming, robotics, game design, and digital art. In 2014, 95 percent of MIT graduates applied to universities. With its diverse student population and high poverty rate, it continues to be recognized as a model for effective urban education. MIT
was recently named a California “Gold Ribbon” distinguished school and received the California Exemplary CTE model school award.

Of MIT’s four technology pathways (digital art, game design, robotics, and programming), two have industry sponsors—MATE (Marine Advanced Technology Education Center) for robotics and TEALS (Technology Education And Literacy in Schools, sponsored by Microsoft) for programming. All four pathways lead to technology certifications.

Every effort is made to place students in internships that deploy pathway skills, as well as other tech skills students acquire at MIT Academy, including Microsoft Office and other productivity tools.

For more information, contact Matt Smith at msmith@mitacademy.org.

Promising Practice

Manufacturing Career and College Connect, Manufacturing and Pre-Engineering Pathway, Chicago, Illinois

The mission of DOLETA Youth CareerConnect grant recipient Manufacturing Career and College Connect (MCCC) is to create a robust link between schools and the surrounding manufacturing sector, giving young people access to career pathways supporting individual, community, and economic development. MCCC grew out of Manufacturing Renaissance’s (MR) work with Austin Polytechnical Academy (APA), a Chicago public school (CPS). MR is an independent nonprofit organization working to rediscover, redefine, and rebuild advanced manufacturing.

APA (co-founded by MR in 2007) is a small school with 120 students that shares a building with two other small high schools, all predominantly low-income and nearly 100 percent African-American. MR developed the MCCC program to complement APA’s engineering and machining curricular programs in which students take three to four years of pre-engineering courses integrated with training that leads to up to four National Institutes for Metalworking Skills (NIMS) machining credentials.

Since 2007 MCCC has worked with over 80 local manufacturing companies to provide advisory support for technical and career preparation program design and operations; over 100 field trips; and over 200 paid work-experiences. MCCC staff members also develop and provide work-readiness and leadership capacity building and mentoring activities.

We are in the beginning stages of transitioning the MCCC program for the high school students from “drop-in” to prescriptive. We now require that students sign up explicitly for the MCCC program with an expected commitment of a minimum of two years of active participation. We are adding a mentoring program and a postsecondary readiness program.

For more information, contact Erica Swinney at eswinney@mfgren.org.
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