

CAREER CLASSES EXPLODE IN VARIETY, PREP STUDENTS FOR JOBS

Training courses multiply in response to growing chasm of vacant positions

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Many of the new classes in our local high schools today look nothing like the classes you knew.

The old-fashioned vocational education high school classes of yesteryear are long gone, replaced now by a growing variety of career-training classes that would have been unlikely just a few years ago.

The more than 65 local high schools are still developing a picture of non-traditional classes created or modified in recent years in response to America's growing chasm of unfilled jobs, many not requiring traditional four-year college degrees.

From repairing a \$150,000, piano-sized machine in Grant County High School to running a school bank branch in Mason to curing horses and other animals on a Butler County school farm, more local high schools are offering career classes aimed at filling workforce gaps.

"The career education movement is alive and well today because more jobs are going unfilled that require technical training," said Samuel Stringfield, director of the School of Education in the University of Cincinnati's College of Education.

Stringfield, who has held positions in the American Educational Research Association and the International Congress for School Effectiveness and Improvement, said, "About 31-35 percent of Americans graduate from some type of college these days.

"But we need to better prepare the other 65-70 percent (for jobs earning a middle-class living) in the 21st century."

Count Dry Ridge teen Andrew Engle in that group.

The 17-year-old senior at Grant County High School spends a good part of his school day working on Northern Kentucky's only high school-based "mechatronics" machine, its moving parts' complexity matched only by its unreliability.

That's on purpose. The machine can be programmed to break down in a variety of fashions, forcing electrical technology students such as Andrew to get it back to running condition.

"I learn better when it's hands-on learning, and it makes me a better critical thinker," said Andrew.

He also works through a co-op program as a part-time manufacturing technician for a local meat packing company. Andrew's classmates may toil at low-skill, minimum wage jobs, but he already earns \$11 an hour with prospects soon for higher pay.

Andrew plans to get more training through a local two-year college paid for by his employer – which will also provide him with a full-time job and full benefits while he earns his associate degree.

“I had pretty much a blank mind before about what I'd like to do with my life. But this class has put me on the straight and narrow path to manufacturing and it's boosted my self-esteem a lot,” he said.

Classes such as these were almost nonexistent less than a decade ago, said Brad Schadler, Andrew's teacher, because “five-10 years ago a lot of these jobs they are training for didn't exist.”

Chris Zirkle is a former career education teacher and now an associate professor of workforce development and education at Ohio State University. The university's program is recognized as among the best in America in training high school career instructors.

“The old high school vocational education used to be only entry-level job training. But now we have so many more career opportunities. The academic aspect of career tech has really been ratcheted up because the jobs require a lot more training,” said Zirkle, whose program turns out more career-training teachers than any other university in Ohio.

At Cincinnati Public Schools, students at Hughes High School work at the Cincinnati Zoo and Botanical Gardens as part of the school's STEM program.

About 50 students take six classes each school day at the zoo and spend two hours with zookeepers working either with animals or horticulture. By the time they graduate, they have 720 hours of work experience at the zoo, said Glen Schulte, who has been a teacher in the program since 1996. Besides their core classes, students learn about economics, conservation, horticulture and animal husbandry.

“Where else can you go to high school and spend half an hour scrubbing an elephant? It's a one-of-a-kind experience,” Schulte said.

Through dual enrollment with Cincinnati State Technical and Community College, students can also earn up to 10 college credits.

Other notable local programs include Butler County's Lakota East High School's nationally acclaimed Spark news magazine, which has 1,000 subscribers in the community and regularly garners top national awards while training reporters and editors.

Lebanon High School has students training in an aviation program at Warren County Airport – including flight simulators – while learning aviation mechanics that often lead to internships and full-time work.

Students regularly don full protective gear and air tanks to clamor up a three-story firefighting training tower at Butler Tech.

Mason High School in Warren County has the region's only in-school bank, where students operate a \$200,000 business – the Comet Savings & Loan Banking Internship. The bank branch has 46 student employees managing 600 accounts in six departments, including personal banking, finance and marketing.

Last spring, Ann Mintz saw the last of her three sons graduate from Mason High School and the advanced business program that feeds student workers into banks.

"It's incredible. When I first heard about it I couldn't believe it," said Mintz, whose two sons now study business at Ohio State. "They got confidence from learning customer service, they mentored younger students, they learned time management and the responsibility of handling money."

Butler County high school students are learning their way around animals in an unusual veterinarian program offered on a Monroe farm.

Classes are held in a renovated barn and nearby portable classrooms while the four-legged subjects of their study are found throughout the campus.

Butler Tech Natural Science instructor Dana Martin gazed over a classroom populated by both students and roaming animals and said, "Many of the parents of the students who attend here say they wish this sort of class was around for them.

"And I wish they had this when I was growing up. It would have made college easier, and I would have been better prepared. It's a good basis for them to figure what the veterinary field is all about and build from there to go on to college."

The cats, dogs, lizards and rabbits share the classroom for good reason, she said.

"All my students have what we call ADD – Animal Distraction Disorder," Martin said. "We have animals in our classroom the whole time so we can focus on their needs. That is very similar to working in a veterinarian clinic – and that is something students are learning in this classroom."

Hanne Goetz, 17, a senior from Liberty Township, loves horses and her farm-based school.

"My friends can't believe I have horses at my school. All my friends go to the typical seven-period high school and they hate their school. Mine is great because it keeps your attention and

gives you something you love to do,” said Hanne. “And I’ve already been accepted to multiple veterinarian colleges.”

Vacant skilled jobs prompt new high school career tech programs

Millions of jobs that do not require traditional four-year college degrees are going unfilled every year.

STEM (science, technology, engineering and math) occupations in general are projected to grow by 17 percent from 2008 to 2018, compared to 9.8 percent growth rate for non-STEM occupations, according to the Economics and Statistics Administration of the U.S. Department of Commerce.

And according to a 2012 Manpower Group Talent Shortage Survey, the top 10 fields with the most positions needing workers are:

1. Skilled trades
2. Engineers
3. IT staff
4. Sales representatives
5. Accounting and finance staff
6. Drivers
7. Mechanics
8. Nurses
9. Machinists/machine operators
10. Teachers

Source: STEMwire

Staff writer Sue Kiesewetter contributed.