



CIW HELPS SECURE JOB PLACEMENT AND ARTICULATION FOR CTC WEB TECHNOLOGIES STUDENTS

CHALLENGE

Careerline Tech Center (CTC) had an established Information Technology (IT) program but found it was lacking key Web components that local industry deemed critical for employee candidates to have mastered. Additionally, CTC wanted to appeal to the Michigan Department of Education's promotion of entrepreneurship among high school students.

CTC, a service of the Ottawa Area Intermediate School District (OAISD), is a career/technical center in Holland, Michigan, serving more than 1,500 high school students from 13 area high schools. CTC's mission is to provide students with career and technical education for employment and post-secondary opportunities.

CTC focuses heavily on job placement for students who are not college-bound, and college credit articulation for those who are. The school works with area business and industry, providing referrals for full-time and part-time employment. Various colleges articulate up to 60 credit hours to students who have completed the CTC Web Technologies program, saving students time and money.

After examining industry trends, CTC met with regional IT professionals who make up its Advisory Board to confirm the employment opportunities for successful students. Criteria were then defined to measure various curriculum choices. To be adopted into the CTC Web Technologies program, curriculum needed to:

- Address general IT concepts.
- Cover broad front-end and back-end Web technologies.
- Reflect industry standards.
- Incorporate industry-level certification.
- Provide for hands-on learning.
- Support state standards.
- Support college articulation requirements.
- Provide exceptional customer service.

CTC needed to find an IT curriculum program that could satisfy this challenging list of demands.

SOLUTION

CIW's state-adopted vendor-neutral IT job-role curriculum and certification program met CTC's curriculum criteria while providing the Web components needed to maximize CTC's IT program. "CIW really came through the selection process with high marks," said Nancy Kuzma, CTC Web Technologies instructor. "The vendor-neutral curriculum allowed our instructor to work with our advisory committee to identify specific skills, software and standards to target," added Jeanne Steber, Careerline Tech Center Curriculum Associate.

CIW delivers industry and state-approved, standardized Web technology curriculum, exams and certification

CAREERLINE TECH CENTER

- A career/technical center serving more than 1,500 students from 13 area high schools
- Offers 33 career and technical education programs

HEADQUARTERS

Holland, Michigan

PROGRAM

- Web Technologies
- 2-year program

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- Jeanne Steber, Careerline Tech Center Curriculum Associate

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CIW BENEFITS

For the School

- Existing exams and curriculum
- Quick implementation
- High-quality, standardized content
- Industry-sanctioned skills objectives
- Affordable pricing
- Outstanding customer service
- Personalized content options
- E-learning, classroom learning, self-study options

For the Student

- High-quality, standardized content
- Industry-approved skills objectives, industry-standard knowledge
- Both instruction and assessment
- E-learning, classroom learning, self-study options
- Industry-valued professional certification
- Affordable pricing
- Technical competence

accepted and endorsed by employers, academic institutions and government entities around the world. CIW instills competency in Internet industry standards, skills, concepts and best practices, and provides familiarity with leading hardware and software applications.

Complementing leading vendor certifications, CIW covers numerous Web technologies. No other Internet training program is more comprehensive than the CIW certification program.

“CIW curriculum and certification are recognized leaders in the Internet field,” said Kuzma. “The recognition that *Certification Magazine* gave CIW certification was a big endorsement for us. Most importantly, the CIW curriculum’s progression and modular approach were very appealing to us. The CIW Foundations modules met our curriculum goals. This was a primary deciding factor for us.”

Potential job placement was another key factor for CTC in its Web Technologies curriculum selection. CTC relied on its Advisory Board to help define the industry standards needed for students to secure gainful employment after graduation. Both CIW curriculum and CIW certification provided important considerations to the team’s recommendation.

Advisory Board member Michael Boyink, Principal of the Internet consulting and development company Boyink Interactive, says the most important element of CIW curriculum is that it covers “the basics from all

angles: project management, time management, Web design and development, and how to present yourself professionally.” He added, “As a potential employer of these students, CIW certification lets me know that they have a good fundamental understanding of the skill set I’d need, as well as the tenacity to work through the curriculum and pass the necessary exams for certification.”

Advisory Board chairman Andy Bass, Vice President of LeanLogistics, concurs. “As a rapidly growing technology company, we look for new hires to have current technology skills, which is what the CTC/CIW program delivers. Because we primarily use open-source technologies to build our products, familiarity with common applications like Apache and Linux are key. Exposing kids to these kinds of platforms at an early age is important, as they will become an integral part of their working lives in the future.”

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Bass continued, “The value of a CIW certification to students is in two areas: the exposure to a certification process, which is common throughout a technical career, and the personal satisfaction of validating their learning in various areas. To an employer, a student having CIW certifications shows a level of commitment and base knowledge that is important to evaluating the potential of a new employee.”

Implementation

CIW helped CTC to construct a unique program that appealed to both junior and senior high school students. “The CIW curriculum provided the structure, assessment tools and nationally recognized certifications to build our new IT program,” stated Steber. “This was a natural fit to fill a gap in our course offerings.”

It took eight months to implement CIW into the CTC Web Technologies program. During that time, a CIW Certified Instructor provided one-on-one training to the instructor teaching the CIW materials. The school submitted an application to become a CIW Authorized Academic Partner in May 2006. Two months later, the CTC instructor became a CIW Proctor; CIW curriculum and exams were purchased; and the facility became a CIW Certified Testing Center, allowing students to take high-stakes exams for CIW certification on-site. The Web Technologies program kickoff took place in August 2006.

The school repeated the implementation process to offer the CIW Server Administrator module and the CIW Site Developer module. Help Desk concepts were added to each year of the Web Technologies program. The final result is a two-year, comprehensive program that teaches the industry-standard skills that are most in-demand. In addition, Kuzma found that CIW program staff helped the implementation process to go smoothly. "Support for problems has been phenomenal. Customer service has always been outstanding," Kuzma said.

Results

CTC effectively improved its IT program by adopting CIW curriculum and certification exams. CIW added industry standards, knowledge and skills vital to student employability in 21st century job roles.

Students who enroll in the CTC Web Technologies program are transported from their local schools to CTC. All Web Technologies students study CIW Foundations during their first year in the program. The following year, students can select the Junior Web Developer track or the Server Administrator I track, both of which incorporate CIW courseware and exams. Upon completing their coursework, students who pass the exams earn the CIW Associate, CIW Professional and/or CIW Associate Design Specialist certifications.

"Our enrollment has been full since the beginning," Kuzma noted. "This indicates that there was a need for this type of program."

In 2008, CTC Web Technologies students participated in Business Professionals of America, the leading Career Technical Student Organization (CTSO) for students pursuing careers in business management, office administration, information technology and other related fields. Six students qualified for the state competition in Fundamentals of XHTML, C++ and Microsoft Networking, resulting in college scholarships being offered to some of the students. In addition, a second-year CTC Web Tech student, Kaitlin Diemer, was awarded one of the 2008 CIW U.S.A. Scholarships, which are granted in a yearly Web site design contest held and judged by CIW and its Web technologists.

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"I believe the students' successes are directly tied to the quality of the curriculum because most of these students had no knowledge of Web technology prior to their participation in the program," Kuzma said.

Today, two years after CTC incorporated CIW materials into its Web Technologies program, 98% of CTC students who have taken CIW certification exams have passed, and 47% of senior Web Technologies students have received college credit articulation. Michael Lehner earned CIW Associate and CIW Professional (Server Administrator) certifications through the CTC Web Technologies program, and was able to articulate with Davenport University, where he's working on a double major in Computer Networking and Network Security.

"The bottom line is seeing students being successful with this program and being empowered to confidently approach the next chapter in their lives with relevant skills."

"I found I actually earned 36 credit hours toward my degrees, which saved me around \$16,000," Lehner said. "It also saved me a whole year of college." Lehner is using his education and certifications in his job as a Web developer for a Grand Rapids-based company. He also works at Davenport University as a part-time Tech

Support Representative, and has been contracted to update and move his high school's Novell system to a Windows 2003 Active Directory.

Late in April 2008, CIW staff met with Kuzma and the Web Technologies Advisory Board to review the Web Technologies program and discuss Michigan's implementation of the CIW curriculum. The state has adopted CIW as official curriculum to be offered through high schools teaching Web design. In accordance with No Child Left Behind, the state is reorganizing programs to match industry-recognized certifications. The course standards are listed under the Business, Management, Marketing and Technology Pathway for Career Clusters to Michigan CTE Programs.

A review of the Web Technologies program found that the current CIW curriculum choices continue to hit the mark. "There isn't a wide demand to know ActionScript, AJAX or Oracle, but employers do want the basics," said Stephen

Schneiter, CIW Certification Specialist and Faculty Institute Trainer. “Can you hand-code an XHTML Web page? Can you use FTP to send a Web page to a server? Do you know what CSS is? It doesn't matter if you have implemented the latest, greatest technologies that design applications have to offer, or created really great graphics or animation. If the site does not validate, if the site does not render the same in all browsers, or if links do not work or buttons do not line up, then the site quality fails, and you have failed in your role as a Web designer. It is all a matter of basics: basic coding, basic structure, basic design, basic troubleshooting, basic project management and basic communication.”

Staying on Top of IT

While the cornerstones of Web technology have remained the same over the past several years, instructional delivery methods have gone cyberspace. CIW offers comprehensive online classroom packages to high schools and colleges that increase learning flexibility.

“It feels like CIW is intentional about keeping its offerings relevant with today’s instructional delivery systems. I appreciate that,” said Kuzma. “What is especially exciting is having the textbooks in PDF format so that we can make them available on Moodle [a free, open-source online course management system]. This truly makes our CIW Foundations class and our Junior Web Developer class (CIW Site Design curriculum) available anywhere, anytime, and I expect this to have a positive impact on student performance.”

The Web Technologies Advisory Board has strongly recommended adding JavaScript, PHP and MySQL to the Web Technologies second-year curriculum. “We are excited to use CIW’s new database curriculum, as well as their JavaScript curriculum, for the first time in Fall 2008,” Kuzma said.

“Overall I believe the advisors, parents, students, and state and local administrators are very happy with the program.”

CIW’s own advisory council ensures that the CIW program continues to offer the latest job skills needed to stay competitive in the IT knowledge economy and job market. Academic institutions worldwide have found that adopting CIW courseware, exams and certifications into their Web offerings has kept them current in Web technology education.

“Overall I believe the advisors, parents, students, and state and local administrators are very happy with the program,” Kuzma remarked. “We recently passed a state audit with flying colors, which again affirms our choice to go with CIW.”

“The bottom line is seeing students being successful with this program and being empowered to confidently approach the next chapter in their lives with relevant skills,” Kuzma concluded.

MORE INFORMATION

Careerline Tech Center

www.oaisd.org/ctc

CTC Web Technologies Program

www.oaisd.org/10932062012753543/site/default.asp

Nancy Kuzma

Instructor, Web Technologies Program

CIW Certified Internet Web Professional

Instruction and certification in vendor-neutral IT skills for 21st century job roles

IT fundamentals, Web page authoring, networking, Web site design, e-commerce, database design, Web languages, programming, security, network admin

- Standardized industry skills objectives
- High-stakes certification exams
- Official CIW Curriculum
- E-learning, instructor-led, self-study
- Online assessment and instruction tools