Community College Develops National Web Portal for Competency-Based Education Resources

- Providing services and resources to learners, job seekers, and employers
- Using nationally-recognized competency frameworks to curate instructional materials
- Focusing on career pathways in high-growth, high-paying occupations

Introduction

Lord Fairfax Community College (LFCC) received a Round 4, Trade Adjustment Assistance Community College and Career Training (TAACCCT) grant that is designed to help people put “Knowledge to Work.” As a key feature of this grant, LFCC created the KnowledgeToWork.com web portal for personalized learning tied to competencies using Open Educational Resources (OER). KnowledgeToWork.com uses nationally-recognized competency frameworks mapped to instructional content. The portal focuses on career pathways in high-wage, high-growth industries: Information Technology (IT), including Cyber Security and Network Administration; Health Care, including Health Information Management (HIM) and IT in Health Care; and Manufacturing, including Soft Skills and Supervision.

KnowledgeToWork.com was designed to meet the needs of three audiences: learners, job seekers, and employers. For learners, it provides access to free and low-cost educational resources about skills and competencies and offers personalized learning plans with customized dashboards to track progress. For job seekers, it enables them to explore career pathways with job search tools to find employers. For employers, it helps them manage the talent pipeline with competencies and to find and use training and professional development resources at lower cost.

Workforce Need

From a national perspective, the outlook for IT occupations is strong, particularly for workers who obtain industry-recognized credentials.

- National employment projections from the Bureau of Labor Statistics indicate that employment opportunities in computer occupations will increase by 12.5% between 2014 and 2024, almost double the average of 6.5% for all occupations. For information security analysts, the projected employment gain is 17.9% during that time period, and for network administrators, 7.1%, both exceeding the national average.
- Employment opportunities for medical records and health information technicians are also significantly higher than the national average for all occupations, expected to increase by 15.4% during that same time period.¹

Approach

“When we received the grant in 2014, we worked with national industry partners, the Competency-Based Education Network, technology providers and regional employers to create our Competency-Based Education (CBE) programs. Then, as part of our TAACCCT grant, we took the competency frameworks, open-source personalized learning plan software, and OER and made them available for free for everyone to use on the

HigherEd.org portal, which launched in April 2016,” says Dr. John Milam, Executive Director of Knowledge to Work. “We continued to work with these partners and, based on feedback and stories from the field, reframed HigherEd.org into the KnowledgeToWork.com portal, which went live in September 2017. We use the same competency frameworks and OER, but now we open them up to the world of job seekers and employers as well as learners.” Available in English and Spanish, the portal currently has 500 dedicated users who have created profiles and work on personalized learning plans to earn nationally-recognized industry credentials. HigherEd.org was recognized as a finalist for the 2017 IMS Global Learning Consortium Learning Impact Awards.

“We use a number of nationally-recognized competency frameworks that document the knowledge, skills and abilities needed to be successful in the Information Technology, Healthcare and Manufacturing career pathways,” says Dr. Milam. “These frameworks were developed by the American Health Information Management Association (AHIMA), the International Association of Administrative Professionals, and the Association for Computing Machinery Committee for Computing Education in Community Colleges. We also promote competencies from the AHIMA Foundation’s Registered Apprenticeship Program, which developed frameworks for four key health information job roles.”

In developing the college’s CBE programs, LFCC faculty researched and adopted program competencies that address student learning outcomes, and more importantly, are aligned with national competency frameworks. “As the portal expands, the U.S. Department of Labor, Employment and Training Administration’s (ETA) Competency Model Clearinghouse and industry frameworks are being used extensively,” says Dr. Milam. “We are also in the process of aligning these frameworks with the Industry-Wide Technical Competencies delineated in Tier 4 of ETA’s Information Technology, Health Care and Manufacturing Competency Models. In addition, we are reviewing the applicability of the Tier 1 Personal Effectiveness Skills in these ETA competency models. The Skills Commons site, a library of free and open job-driven workforce development materials developed by TAACCCT grantees across the nation, has been used extensively to find resources, along with MERLOT, the Learning Registry, and other learning object repositories. None of these repositories, except KnowledgeToWork.com, are focused on competencies.”

For job seekers, KnowledgeToWork.com links to a variety of job search tools and provides answers to critical questions relating to career pathways in its featured high growth industry sectors. For example, with input from AHIMA and regional employers, KnowledgeToWork.com provides this guidance to those interested in the health information field.

“Who are HIM professionals and what do they do?

- **HIM (health information management) professionals are highly trained in the latest information management technology applications and understand the workflow in any healthcare provider organization from large hospital systems to the private physician practice. They are vital to the daily operations management of health information and electronic health records (EHRs). They ensure a patient’s health information and records are complete, accurate, and protected.**

- **HIM professionals often serve in bridge roles, connecting clinical, operational, and administrative functions. These professionals affect the quality of patient information and patient care at every touch point in the healthcare delivery cycle. HIM professionals work on the classification of diseases and treatments to ensure they are standardized for clinical, financial, and legal uses in healthcare…**

2 Knowledge to Work, [https://www.knowledgetowork.com/health-information-management.php](https://www.knowledgetowork.com/health-information-management.php)

For learners, the KnowledgeToWork.com portal contains almost 20,000 instruction-related materials, curated by faculty and a digital librarian, which directly address the nationally-recognized competencies articulated by industry leaders for the Health Care, IT, and Manufacturing industry sectors. KnowledgeToWork.com includes
OER and other types of instructional materials, including: videos; audio/podcasts; online and traditional courses; mentors; internships; apprenticeships; boot camps; assessment tests; credentials; and badges in a variety of formats. For example, a search on KnowledgeToWork.com for “reimbursement methodologies” lists the following industry-identified competencies and available learning resources.

Users can learn anytime/anywhere at a flexible pace, using the format they prefer, with curated materials that meet quality standards. This is a great way to obtain competencies on your own, reducing the time to completion and making college more affordable.

**Next Steps**

KnowledgeToWork.com features for employers are under development and will be released soon. These features will enable employers to create profiles so that job seekers can locate their business; to attract new job candidates with the skills that they need; to add unlimited job roles and align each to specific competencies required to perform that position; and to effectively use competency frameworks to manage the talent pipeline.

LFCC is also building on the CBE core project by “unpacking” the competencies for two of the targeted allied health sectors—HIM and IT in Health Care. “Unpacking” involves identifying sector metrics (e.g., hiring rates, wage rates, trends); tying the information to real-time occupations; outlining individual training maps, learning plans and competencies; and identifying real-time pertinent training programs that meet employer needs. The project is also significantly revising the AHIMA Certified Health Technician Specialist certification that has been developed through the college’s partnership with AHIMA and taking it to national scale with a new national competency framework and exam. All of this information will be available via KnowledgeToWork.com.
Related Links

Knowledge to Work
http://www.knowledgetowork.com/

American Health Information Management Association
http://www.ahima.org/

International Association of Administrative Professionals
http://www.iaap-hq.org/

Association for Computing Machinery, Committee for Computing Education in Community Colleges
https://ccecc.acm.org/

Skills Commons
https://www.skillscommons.org