

Docket Item:

Community College Approval: Umpqua Community College, Associate of Applied Science in Computer Information Systems: Cybersecurity, within 52.2101 - Telecommunications Management.

Summary:

Umpqua Community College proposes a new AAS degree in Computer Information Systems: Cybersecurity. Higher Education Coordinating Commission (HECC) staff completed a review of the proposed certificate. After analysis, HECC staff recommends approval of the degree as proposed.

Staff Recommendation:

The HECC recommends the adoption of the following resolution:
RESOLVED, that the Higher Education Coordinating Commission approve the following degree: AAS in Computer Information Systems: Cybersecurity.



Umpqua Community College seeks the Oregon Higher Education Coordinating Commission's approval to offer an instructional program leading to a degree in Computer Information Systems: Cybersecurity.

Program Summary:

The Computer Information Systems: Cyber-security program is a two-year sequence of classes designed to prepare you, via hands-on training, for employment in the computer area as an entry-level network administrator, computer support person, web designer, or computer programmer, while developing general problem-solving and troubleshooting skills that can be applied to networking, server, computer, web, and business programming environments.

Further, this degree adds hands-on cyber-security training in ethical hacking, computer hardware, computer forensics, cloud services, virtualization, switches, routers, and Adaptive Security Appliance (ASA) devices. At UCC, you will learn to program in a high-level programming language and to apply programming concepts in a variety of environments. You will become proficient as a user and manager of server and desktop operating systems, switches, routers and ASAs. You will also learn how to configure and modify the hardware components of server and desktop systems. In addition, the CIS program provides a strong foundation in basic business and project management principles and practices. Finally, the program develops verbal and written communication skills.

1. Describe the need for this program by providing clear evidence.

Network and computer administration employment in Oregon is expected to grow much larger than the statewide average for all occupations; the total number of job openings is expected to grow somewhat higher than the statewide average for all occupations; and its growth is expected to occur at a rate at about the statewide average growth rate for all occupations. Adding cybersecurity training to the above base training prepares UCC students with cutting-edge skills that all network and computer administration employers seek in new employees.

2. Does the community college utilize systemic methods for meaningful and ongoing involvement of the appropriate constituencies?

Our local advisory committee approved the creation of this degree last spring at our annual meeting and again this fall via an email query with the degree attached. We will continue to work with our advisory committee to keep the degree's offerings current and relevant to the job market. During the 2015-2016 school year, UCC entered into a collaboration agreement with Mount Hood CC, the only other CC in the state to offer an AAS in cybersecurity. MHCC requested the partnership, which facilitated its obtaining the Center for Academic Excellence-2 Year Institution (CAE2Y), a designation granted by the NSA. UCC and MHCC will work together to share best practices and other resources because of this agreement.

In Spring 2015, the CC approved my request to bring this degree forward for approval.

In Winter Term 2016 all of the new courses were approved by CC and IC with the exception of CIS145- Forensics, which was still in development. Also, in Spring 2016, John Blackwood completed an NIST application for \$75K in grant funding related to the AAS CIS: Cybersecurity degree

3. Is the community college program aligned with appropriate education, workforce development, and economic development programs?

This degree is designed to meet the needs of students who want to complete an AAS in Cybersecurity and gain employment in a field offering a family wage and continued job growth.

4. *Does the community college program lead to student achievement of academic and technical knowledge, skills, and related proficiencies?*

Students completing the AAS are eligible to transfer to Oregon 4-year colleges offering the applied baccalaureate degree option. We expect that students will graduate from the UCC, enter the work force, and continue their education while employed in the field.

5. *Does the community college identify and have the resources to develop, implement, and sustain the program?*

UCC currently has the capacity and resources to adequately meet the needs of an additional 12-20 CIS students per year. No new equipment is needed for the implementation of this degree.

Assurances

Umpqua Community College has met or will meet the four institutional assurances required for program application.

1. *Access.* The college and program will affirmatively provide access, accommodations, flexibility, and additional/supplemental services for special populations and protected classes of students.
2. *Continuous Improvement.* The college has assessment, evaluation, feedback, and continuous improvement processes or systems in place. For the proposed program, there will be opportunities for input from and concerning the instructor(s), students, employers, and other partners/stakeholders. Program need and labor market information will be periodically re-evaluated and changes will be requested as needed.
3. *Adverse impact and detrimental duplication.* The college will follow all current laws, rules, and procedures and has made good faith efforts to avoid or resolve adverse *intersegmental* and *intra-segmental* impact and detrimental duplication problems with other relevant programs or institutions.
4. *Program records maintenance and congruence.* The college acknowledges that the records concerning the program title, curriculum, CIP code, credit hours, etc. maintained by the Office are the official records and it is the college's responsibility to keep their records aligned with those of the Office. The college will not make changes to the program without informing and/or receiving approval from the Office.