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**Docket Item: 6.6 - CONSENT ITEM:** Umpqua Community College | Expert Systems, Automation, Machine Learning and Robotics, CC

**Summary:**

Umpqua Community College proposes a new Certificate of Completion in Expert Systems, Automation, Machine Learning and Robotics. Higher Education Coordinating Commission (HECC) staff completed a review of the proposed program. After analysis, HECC staff recommends approval of the certificate as proposed.

**Staff Recommendation:**

The HECC recommends the adoption of the following program: Umpqua Community College CC in Expert Systems, Automation, Machine Learning and Robotics.

**Recommended Motion:**

Move to approve the following certificate: Umpqua Community College CC in Expert Systems, Automation, Machine Learning and Robotics.



**Umpqua Community College seeks the Oregon Higher Education Coordinating Commission's approval to offer an instructional program leading to Certificate of Completion in Expert Systems, Automation, Machine Learning and Robotics.**

**Program Summary**

The Computer Information Systems: Expert Systems certificate is designed to prepare the student, via hands-on training, for employment as an entry-level technician in the field of artificial intelligence. The program helps students develop general problem-solving and troubleshooting skills that can be applied to automation, machine learning, robotics, and business intelligence environments. Further, this certificate adds hands-on training in Python; the ethics of AI; reinforcement, supervised, unsupervised, and deep learning; natural language processing (NLP); computer vision; and data science AI.

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

A recent study, conducted in April/May 2021 by EdScoop and underwritten by Dell Technologies and Intel, found that demand for AI training is outpacing supply and the current ability of higher education institutions to meet that demand.

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

UCC has strong partnerships with employers and organizations throughout the region. Specific to AI, we will discuss internship, apprenticeship, and employment opportunities with Douglas County, City of Roseburg, Seven Feathers Casino and Resort, Roseburg Forest Products, the Ford Family Foundation, Convey Keystone, Orcenco Systems and Intel.

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

The new certificate leads to a certificate in a field that lacks sufficiently trained AI technicians and engineers. The program is aligned with Douglas County's economic and workforce development activities and needs.

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

Courses within the certificate program align with technical skills and abilities that are in demand locally, regionally and across the United States..

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

UCC supports the creation of this certificate, which will train students for employment in artificial intelligence. UCC has the resources needed to develop, implement and sustain the program.

***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 *intrasegmental* 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.