

Docket Item: 6.10 - CONSENT ITEM: Umpqua Community College | Water Quality Technology, AAS

Summary:

Umpqua Community College proposes a new Associate of Applied Science in Water Quality Technology. Higher Education Coordinating Commission (HECC) staff completed a review of the proposed program. After analysis, HECC staff recommends approval of the degree as proposed.

Staff Recommendation:

The HECC recommends the adoption of the following program: Umpqua Community College AAS in Water Quality Technology.

Recommended Motion:

Move to approve the following degree: Umpqua Community College AAS in Water Quality Technology.



Umpqua Community College seeks the Oregon Higher Education Coordinating Commission's approval to offer an instructional program leading to an Associate of Applied Science in Water Quality Technology.

Program Summary

The Water Quality Technology, AAS degree, prepares students for a career in water quality operations through an integrated curriculum of core water quality technology courses, STEM elective courses, general education courses, and hands-on work-based learning. The degree includes five introductory courses in water and wastewater operations, 24-credit hours of related cooperative work experience, foundational courses in math and science, and STEM elective courses. The degree prepares students to take the Level I Operator Certification exams for water and wastewater. The cooperative work experience is hands on training and is equivalent to approximately 5 months of full-time work experience.

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

The median annual salary is \$62,900 in Oregon. In 2020 there were 1,144 operators in Oregon and 125,200 operators nationwide. Annual openings are projected at about 97 jobs in Oregon and 10,800 jobs nationwide. Also, many experienced operators are reaching retirement age. Employment information is from Oregon Employment Department and US Bureau of Labor Statistics.

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

The water quality technology field has, for the most part, a stable workforce with few new positions added. Employers are primarily public agencies or private organizations contracting with public agencies. In the mid to late 1970's after implementation of the Federal Clean Water Act (codified in 1972) was in full swing, federally funded facility improvements brought a large influx of new career employees. Now, 45 years later, a large retirement bubble will result in a nationwide need for qualified candidates to replace the retirees. This program intends to fulfill this need regionally and provide a template for a national educational program.

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

The Water Quality Pathway Certificate provides introductory coursework for entry level positions as water and wastewater operators, and to prepare for taking the Level I certification exam. The water quality technology classes in the certificate are found in the Applied Water Quality Option,

Civil Engineering & Surveying Technology, AAS degree

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

Program Outcomes

1. Explain the terms and concepts, including the mathematical skills necessary to pass the Level I water and wastewater certification examinations.
2. Explain the maintenance and operation of water treatment, water distribution, wastewater treatment, and wastewater collection systems relative to operator job responsibilities.
3. Express concepts, ideas, technical principles, and feedback in a manner that promotes understanding and encourages cooperation.

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

UCC already has the faculty (Larry Bahr and Clay Baumgartner) and the classes needed for this program. UCC has also partnered with SWOCC to make this a regional program, which should help it be sustained as an AAS.

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.