

Docket Item:

Community College Approval: Clackamas Community College, Associate of Applied Science in Industrial Maintenance Technology, within 47.0303 - Industrial Mechanics and Maintenance Technology.

Summary:

Clackamas Community College proposes a new AAS degree in Industrial Maintenance Technology. 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 Industrial Maintenance Technology.



Clackamas Community College seeks the Oregon Higher Education Coordinating Commission's approval to offer an instructional program leading to a degree in Industrial Maintenance Technology.

Program Summary:

Industrial Maintenance Technology (IMT) is a program that prepares students to succeed as a maintenance technician in industry. IMT graduates perform mechanical and electrical maintenance of manufacturing equipment such as machine tools, automated process equipment and building systems to keep production operational. Maintenance technicians study subjects from a wide variety of technical disciplines ranging from welding to industrial electronics to robotics. This is a high-wage, high-demand field that typically attracts talented people who are excellent problem solvers and enjoy challenging work.

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

The department has completed a market analysis of this discipline and determined that current and future need is much greater than average. The Department of Employment has also placed Industrial Maintenance on its list for prioritized instruction. Job postings in this field exceed that of Welding and Machining of which we have decades of first-hand knowledge of the actual (and very strong) job market. Interviews with numerous hiring managers have led us to believe that this discipline is severely underserved in our region. An industrial advisory board, formed to explore the program, has given their enthusiastic support to move forward.

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

An industrial advisory board was commissioned to determine a need for this program and to approve the draft of the program curriculum. They gave their approval and made suggestions for improving the final curriculum. Our advisory boards meet regularly as a matter of practice. The college also sought out industry input for the Tech Hire grant application (earmarked for this field) and received many letters of support.

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

Industrial Machinery Mechanic was ranked state-wide as the number one, non-healthcare, high-wage, high-demand occupation in the Training Oregonians for the Right Jobs report of 2015. A leading factor to this ranking is the predicted 2298 openings by 2022. Graduates of this field can expect excellent employment opportunities as well as the ability to move along a career path. That path can lead to management/supervisory positions, licensure as an industrial electrician, and continued education in a B.A.S program.

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

The curriculum was planned and designed with the collaboration of numerous industrial practitioners of the trade, plant managers and maintenance/manufacturing

engineers. The scope and sequence has been corroborated with multiple sources ranging from other community college programs to work-based programs at prominent, multi-national manufacturers. Many of the selected textbooks are custom editions from a leading technical training company that has allowed us to tailor learning to our regional industry. This program was developed to incorporate contextual learning as the hallmark of the curriculum. Students are expected to spend approximately half of their class time working hands-on with industrial machinery and the related tools and technologies found in this field. We also have the resources to purchase a variety of industrial equipment and trainers that will enable this experience.

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

This program will be initially funded through the Tech Hire grant. The three-year grant will allow for the development of six new courses and provide funding for instruction and tooling. We currently offer 80% of this program as regular, open-to-the-public courses. These courses are used by many programs ranging from Microelectronics to Computer-aided Manufacturing. Instruction is currently provided by full-time and adjunct instructors and is funded through both general fund and fee resources. We foresee a point, near the end of the grant period, when a faculty position will be desired to maintain this program. If that is not possible, then we will continue on with the PT faculty/fee model as we do with several other programs (i.e. GIS, EET & Microelectronics).

Assurances:

Clackamas 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.