

Docket Item:

Community College Approval: Central Oregon Community College, Associate of Applied Science in Manufacturing Machining Technician within 15.0613 – Manufacturing Engineering Technology/Technician.

Summary:

Central Oregon Community College proposes a new Associate of Applied Science in Manufacturing Machining Technician. 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 resolution:
RESOLVED, that the Higher Education Coordinating Commission approve the following degree: AAS in Manufacturing Machining Technician.



Central Oregon Community College seeks the Oregon Higher Education Coordinating Commission's approval to offer an instructional program leading to an Associate of Applied Science in Manufacturing Machining Technician.

Program Summary

The Manufacturing Machining Technician Associate of Applied Science prepares students to apply basic utilization skills for the identification and resolution of production problems in the manufacture of products. The program includes instruction in machine operations, production line operations, utilization improvements, physical controls, automation, computer-aided manufacturing (CAM), manufacturing planning, quality control, and informational infrastructure.

The degree benefits students who are new to design and machining technology and those who are currently in the field but looking to expand skills and increase career opportunities. Students who have a non-technology career in another field may find this degree optimum for cross training into the CAD/CAM and manufacturing technology discipline.

Program Learning Outcomes

Upon successful completion of the program, students will be able to:

1. Use fixture design in production environment.
2. Analyze machine operation for optimization opportunities.
3. Develop part-holding options for computer numerical control lathe and mill.
4. Model effective and appropriate communication with manufacturing professionals and clients.

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

1. Identify the purpose of the program

Advisory board is requesting we get deeper into the CNC portion of machining. Currently we only have 12 credit hours of CNC training, this would move to 75-80 CNC. Over 95 percent of the jobs are in CNC Machining.

2. List job titles.

Machinist, CNC Machinist, Machine Operator, CNC Mill Setup, CNC Swiss Machinist, CNC CMM Operator, Tool Crib Attendant, Shop Foreman, CNC Programmer, Estimator.

3. Who is your target population?

The target audience for this program would be existing community college students, current high school students and community members or machining industry employees interested in machining as a career choice.

4. Evidence of Need Summary:

What is the average hourly or annual wage for these occupations in the Central Oregon region?
\$25.38-\$30.23 (\$30 for CNC Programmer, Foreman, or Estimator.)

5. What is the number of total annual job openings in Central Oregon?

20-30 based on our advisory board members, many of our students move or are willing to move to Portland where there are a lot more jobs.

6. Provide 3-5 points representing the strongest evidence of need, citing your source and including specific employers who have requested the program (if any).

Currently 95% of jobs in the machining industry are CNC. Our current program has less than 10 percent CNC content. We need to be at least %50 CNC to get students ready for this trade.

At the Advisory Board meeting on October 10, 2019, advisory board members have asked for more CNC content. Keith Manufacturing (Mike Feingner), Radian Weapons (Josh Underwood), LSX Innovations (Justin Clark), CV International (Dale Riggs), Carlson Sign (Peter Carlson), ISCO Machine (Don Griffiths), Outback Manufacturing (Sam Shaw), Nosler (Mike Lake).

Our advisory board would like us to be NIMS certified at the program level, currently we do not fit the requirements due to lack of CNC content.

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

The Manufacturing Machining Technician AAS is developed in collaboration and with the support of the manufacturing technology advisory board. The advisory board represents regional employers in the fields of manufacturing (machining, welding, etc.)

Keith Manufacturing (Mike Feingner), Radian Weapons (Josh Underwood), LSX Innovations (Justin Clark), CV International (Dale Riggs), Carlson Sign (Peter Carlson), ISCO Machine (Don Griffiths), Outback Manufacturing (Sam Shaw), Nosler (Mike Lake), HDESD (Brook Rich).

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

This program is developed in alignment with the COCC mission of providing quality, accessible education programs. In addition, it supports two strategic planning goals: student success and

community enrichment. The program is designed in alignment with the National Institute of Metalworking Skills Machining Standards (National Standard).

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

This is a 94 credit two year associate degree which will be offered on the Redmond campus of COCC. Students can enter any term (except summer) with recommended preparation, and can attend either part or full time. There is a program orientation offered every term required for students in their first term and in support of retention and success.

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

This proposal is essentially a restructuring of current programs to offer a more coherent and rigorous training in machining, as needed by employers. We anticipate modest growth and as a result, current facilities, services, and capacity are sufficient to meet the expected growth.

Assurances

Central Oregon 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.