

## MACHINING-MANUFACTURING ADVISORY COMMITTEE MINUTES

**DATE:** May 19th, 2022

**TIME:** 5:30-6:30 pm

**PLACE:** RIGHTLINE 29120 Dike Road Rainier, OR 97048

- I. **CALL TO ORDER:** Richard Leu, chairperson, called to order the regular Spring 2022 meeting of the Machining-Manufacturing Advisory Committee at 7:00 pm following a tour of Rightline.

### II. Introductions

Richard Leu - Selway Machine Tools

Jim Peters, Waite Specialty Machine Works

Jennifer Hanson, USNR

Nathan Shephard - LCC, Machine Trades Instructor

Natasha Allen, Rightline, Manager/LCC Welding Instructor

Corry Torppa, CTE Director, Kalama High School

- III. **APPROVAL OF MINUTES: May 11, 2021 Meeting:** [Machining-Manufacturing Advisory Board Minutes May 11, 2021](#) (Committee reviewed and approved with three voting members in attendance. Additional votes to be obtained electronically).

### IV. CONSENT CALENDAR:

#### a. APPROVALS

- i. K12 CTE CONDITIONAL CERTIFICATION - none at this time
- ii. COURSES AND CIP CODES - none at this time

### V. INDUSTRY UPDATES:

- a. **Selway:** Richard shared that overall, manufacturing is doing well, especially with sales and automation which have increased significantly due to the challenges with personnel and finding and retaining qualified employees.
- b. **USNR:** Jennifer is also seeing an increase and shared information and success in the apprenticeship program and partnership with LCC. She reiterated the importance and benefit of LCC's program incorporating manual machining before CNC. She also indicated courses/skills such as blueprint reading speed/feed setup, Mastercam, and Solidworks are among the biggest needs for training. Employees cannot progress into the CNC department at USNR until they have manual machining experience to help reduce the potential for significant errors. Also utilizing a program called Espree.
- c. **Waite Specialty:** Jim shared that they remain very busy and expressed challenges with finding employees as well. He said that they also get potential employees wanting to work directly with CNC but request that they go back and complete manual training first. While not currently moving into robotics, as a

fabrication shop, they are seeing an increase and movement toward automation equipment (conveyer lines, etc.) They also utilize Mastercam as well as Inventor.

## **VI. Education Updates**

**LCC:** Nathan shared areas in exploration for potential curriculum changes for the future and requested feedback from the committee. Nathan shared that he is currently working with Fusion 360 to potentially incorporate it into the MASP program someday. The committee discussed Fusion 360 and its use in the local high schools as well. The program also has the potential to be utilized even at the middle school level as a free trial can be downloaded and the online tutorials technical assistance and support are substantial. Overall, the committee felt continuing to look at this was a good direction. Nathan asked the committee for input on upgrading from 2019 Mastercam to 2022. He also shared the current curriculum around Mastercam including basic drawings through toolpath and milling as plans to have them perform some lathe paths as well. He shared an interest in adding more CAD/CAM into the program throughout and would bring these changes to industry partners in the future to go over the details of assessing different shops' needs to determine the best overall approach to this.

Currently, enrollment is still a challenge but seeing some increase, especially around both WA state-registered and non-registered apprenticeship programs. Several companies have reached out to LCC with various projects and training programs in development. Nathan shared the upcoming LCC initiative to support "one free class" for the Fall quarter. This is supported via Cares Act funding and will hopefully inspire additional students to try out a course this fall including those seeking short-time training.

Nathan asked for input about exposing students to different controls and machines beyond Haas. Students are exposed to different options in the Tooling U program but not in real-time. Therefore, he is exploring options for the future including purchasing a Doosan machine. Richard agreed could be good to expand their experience. He also recommended continuing to explore Fusion 360 as it is very user-friendly and affordable.

Committee discussion:

Jim was also in support, adding to the comments/feedback from USNR above, and expressed the importance of LCC continuing to teach the foundations with both manual and CNC programming. Nathan confirmed students still receive 10 credits of the manual in the degree. By having that background, LCC students have an advantage over some who entered the industry without that experience. LCC students shine in troubleshooting as a result. Nathan shared he continues to look at different options to find the appropriate balance between manual and CNC programming as the program looks to modernize but without losing the vital foundational elements that help graduates stand out.

**K12:** Corry shared their goal of having all students build actual projects as their capstone and are still in the process of expanding that direction. Working on real-life projects enhances student learning especially around critical thinking and trial and error. Students can learn from their mistakes or 'failures' as an invaluable learning experience. As they make the part and troubleshoot the imperfection, it allows them to better understand the reason for the failure. Currently, Corry has around 45-50 students in two manufacturing classes and seeing growth which is encouraging.

Committee discussion: The committee also discussed the lack of preparation seen by incoming students. Fewer and fewer students come to high school and college with technical skills learned at home or outside an educational setting. This presents challenges in being able to move into more robust projects quickly as instructors have to present the basics before moving on. LCC will continue to explore the re-implementation of a basic shop tools class which used to be aligned with the contextualized college success class MFG 100.

**Labor Market Review/Students Success Performance:** The committee reviewed the labor market information, but the consensus was this was a difficult time to assess wages given the current trends in the industry and overall challenges with hiring and competition. Industries are struggling to remain competitive. Jennifer shared that USNR has hire-on bonuses and referral incentives if employees remain for 90 days. Several areas are offering similar incentives and wages from two years ago would be around \$18-19 per hour are now around \$20-25. Inflation and wages unfortunately may continue to fuel a movement toward automation. Several companies are also offering tuition reimbursement, including Rightline which offers 100%. The committee also reviewed the student performance data. Promotion of non-trad continues to be an emphasis. Jennifer shared she may have ideas for additional female representation on the committee to help forward these efforts.

**Other:** Tamra shared that the initial work for the new LCC Vocational Building had been completed and that LCC should hear by summer or early fall on the next steps regarding the funding to move forward with the design process.

She also shared the update on the new BAS degree in Organizational Leadership and Technical Management. A part-time cohort will begin in Summer 2022 which will be delivered via an 'adult degree' model where students can focus on one class at a time. This BAS is ideally designed for working professionals with some time and experience working in industry or business.

Tamra also provided an update that the Industrial Trades course developed in partnership with Kelso High School will likely run for the first time this fall which is an exciting next step in increasing exposure and opportunity for local high school students.

The next meeting will be determined but there was a strong interest in continuing to visit and tour other facilities as part of advisory committee work.

The meeting adjourned at 8:20 pm.

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