

**WELDING TECHNOLOGY ADVISORY COMMITTEE - MINUTES**

**Wednesday, December 9th, 2020 \* Noon to 1:30 P.M.**

**Zoom Online (Audio/Video)**

**Members Present (Welding):** Kale Park, Columbia Steel Services (Vice Chair); John Gaynor, Swan Island Sheet Metal; Zane Michael, Motoman Robotics; Seth Thompson, SW WA Pipe Trades;

**Members Present (Machining):** Matt Lewis, Kyrocera International, Inc.

**Members Absent:** Bill Dykstra (Committee Chair), Praxair; Sonny Curtis, Ironworkers Local #29; James Duncan, Frontier Metal Fabrications, Inc.; Laramie Lexow, Shopman Ironworkers Local 516; Nathan Marks, Mark Brothers, Inc.; David Patterson, Mt View HS; Jason Petersen, Vigor Industrial PDX; Paul Sibley, 360 Sheet Metal; Mark Stanley, Columbia Machine; Gary Stone, Stone Consulting Services; Michael Williams, Samson Sports

**Guests:** Lee Dockstader, HP

**Clark College:** Caleb White, Department Head; Wade Hausinger, Brian McVay, Welding Instructor; Pat Sevier, Machining Instructor; Armetta, Interim Dean or Workforce & CTE; Wende Fisher, Advising; SueAnn McWatters, Program Specialist

Committee Vice Chair Kale Park called the meeting to order at 12:08pm and introductions were made.

**APPROVAL OF PREVIOUS MINUTES**

*The minutes of May 13th, 2020 were presented: Kale Park made a motion for approval, Zane Michael seconded and was unanimously approved.*

**NEXT MEETING DATE**

The committee will next meet on **Wednesday, June 9th, 2021 at Noon.**

**OFFICE OF INSTRUCTION ANNOUNCEMENTS**

Armetta Burney made the following announcements:

The college now has a new President named Dr. Karin Edwards. She comes from Portland Community College.

COVID-19 has impacted everyone. The college has been in remote operations since spring of 2020. We received permission to continue conducting face-to-face labs that include Welding, Machining, etc. As we move into winter term, we will primarily be in remote operations. The decision has been made to keep in remote operations through spring with exception of those CTE programs.

The college is still in some budget challenges. There will be about a $2.2 million shortfall as we approach the end of the year. We are also anticipating a 10% cut in our budget. This final decision has not been made yet. Additional impacts could ensue.

The college has gone through a significant amount of restructuring. The Economic and Community Development department that took care of noncredit options has been eliminated. They are now imbedded into Instruction where we can collaborate on creating noncredit courses for the community.

FTEs (Full Time Equivalent) are at 87% of the goal target. As of right now, FTEs are at 78% for the winter term.

**WELDNG DEPARTMENT UPDATES**

*New Equipment*

Caleb White shared that they recently bought a Robotic Weld Cell. It is comprised of:

* Yaskawa AR1440 Robot
* Miller Arc Continuum 350
* Miller Wire Feeder
* Tool Changer
* Tool Gripper

They started the process back in 2019. The goal right now is to finish training. There have been a few set up issues due to shipping. Hopefully this will be finished summer 2021. The program is looking forward to implementing robotics and manufacturing together. Eventually, they would like to have a self-contained manufacturing cell where they could design parts for raw material.

If the committee has any ideas how to fine tune the curriculum or to train students, please reach out Caleb White and/or the department.

The committee discussed finding links or resources to using the robot.

Kale Park asked about how the programming on the robot works? Caleb White there are a couple of ways:

1. You can do it at the machine with Pendent with some manual programming
2. MotoStem, which is simulation software from Yaskawa

This will significantly increase how fast they are able to program a robot and do so offline.

As of right now, the cell will be in addition to what the curriculum is currently at. The first goal is to get the AWS ATC designation. If somebody from industry or a student wants to get a Robotic Weld Certification, this will be an additional course. As the program figures out and learns more about the robot, it’ll start being implemented more and more, especially as we transition to Advanced Manufacturing. Right now, it’s more about exposure of what they might see; more like an operator than a programmer. Zane Michael also suggested having the students look at the changes in a critical variables in a weld procedure. This can really help show when you are doing something properly vs. improperly.

They also purchased a MUSE 3D Auto Focus Desktop CO2 Laser Cutter. The purchase was made possible by grant funding from the Associated General Contractors – Oregon Columbia Chapter.

* 45 wide
* Echo filtration
* Rotary access

The software for this is free and easily downloadable. Students can work with it offline.

The last piece of equipment bought in conjunction with this is 3D printing. They bought a Formlabs Form 3 SLA 3D Printer. They currently have an order in for some tables and cabinets to set up the computer lab.

They hope to start a Technology Club that includes Welding, STEM, Mechatronics and Machining students.

*New Tenure Faculty*

Wade Hausinger has become the new tenure track faculty member. He has been an adjunct instructor in the past and the program is very excited to have him on full-time.

*Class Projects*

Brian McVay stated that due to COVID-19, teaching has been a tad more difficult. This past quarter, they built stools. Next quarter was supposed to be a pressure vessel. However, due to the restrictions, this wouldn’t be allowed. As an alternative, we will do the design in class where the students will get some exposure to CADD based programs (Autodesk Fusion 360/SolidWorks). They are also going to build a camp stove. This will be on an independent vs. full class project.

*COVID Protocols Implemented by Industry*

Pat Sevier posed this question since he is currently teaching in person.

Zane Michael stated that because he’s traveling a lot, he’s experienced a variety of different protocols. In some businesses, they had to wear a mask, socially distance, temperature checks, etc. Other customers cancelled visits in person. It’s varying, however when you do go into a plant, you have to confirm you haven’t been around anyone. Many welding shops/businesses are still going strong and are not shut down. Pat Sevier also agreed that he hadn’t seen any machining shops shut down either. Zane stated that they have seen a HUGE increase in demand for Automation. With the shortage of welders continues to grow, it’s put a new level of urgency for Automation. Their training department is utilizing all of their instructors. It has been extremely busy.

John Gaynor spoke on running hands on training. They have developed a COVID plan. It’s very similar to Zane’s comments; 6ft. of separation, daily symptoms checks before you come in, contact tracing, using gloves if using tools, wiping things down afterwards, etc. As far as job sites go, it’s been changing weekly. Most of them include a log of some sort, a check off list of symptoms, etc.

**MACHINING DEPARTMENT UPDATES**

*Teachout Update*

Pat Sevier stated that the next quarter (spring) will be the last quarter for Machining Technology. Four will graduate this quarter. 3 will work in the industry. He asked the committee to send him any job postings.

In the past, the college has done corporate training specifically for a company. They’ve had federal funding to train machinists.

**INDUSTRY UPDATES**

Kale Park spoke on his organization being a contractor company. The miscellaneous metals they’re hearing about is slowing down. The structural side still has work available.

John Gaynor agreed that supplies are delayed. His company has an apprenticeship program that only saw a two week slow down, however it picked up quickly. The biggest concern has been the bidding on projects being suspended. From the initial shutdown, the industry is looking at a 12-18 month delay. With the lack of travel, the cost of barrel oil has been VERY low.

Caleb White stated that enrollment is down. For Welding specifically, the program is actually doing well. They are adding a third section. The class cap is normally 16 students. We are below that, but there still seems to be interest.

Lee Dockstader is involved in the 3D printing and is happy to help where needed.

The meeting was adjourned at 1:16pm.

Prepared by SueAnn McWatters