Manufacturing Advisory Committee

Tuesday December 6, 2022,
8 a.m. – 9:30 a.m.
Georgetown Campus

MINUTES

Industry Attendees:
Tom Diehl – Klein Educational Systems
Dan Gallagher – Shoreline School District
Rick Rudnick – Boeing

SCC Attendees:
Guy Hamilton – Executive Dean, Workforce & STEM
Keith Smith – Professor, Manufacturing ***
Wanda Waldrop – Career Navigator
Lisa Smith – Note Taker
***Faculty Lead, **Chair, *Vice Chair**

Minutes Approval: No Quorum – to approve (5/10/22) minutes at next meeting

Update on new equipment purchases for the new instructional space – (Keith & Guy)
Older machines were moved to Georgetown from the old SCC Machinist location. The machines were built in the 90's, are in good condition, but are very large. The new space at SCC will have a smaller area than the previous old building. There was much wasted space in the old building, so the new design will be more beneficial to Shoreline.

The new building is built on the same site as the old building, and the whole first floor is designed for Manufacturing and Biomanufacturing space - approximately 3000 square feet, which is smaller than the footprint of the old lab. The idea is to either sell the old machinery, or leave them at Georgetown, and purchase smaller machines. Larger machines are not necessary to teach the skills.

It was also decided to discontinue the large HAAS machines and work only with smaller HAAS CNC tool room mills machines, with tool changers, and a small (Lathe) tool blade. The system also includes modern controllers that provide a windows basic computer that can store videos and informational and interactional training benefits. Shops appreciate that exposure. The only downside would be to not have exposure to different controllers. The Curriculum is also more inclusive of the Rotary Axis.

Guy asked what training would be necessary, in terms of controllers for the faculty. Keith said it would be great to allow Industry members to participate and find out what they recommend for the department. What would Industry like students to do on a Rotary Axis that would allow them to work in that department.

Input from Committee on the organization of the new instructional space – discussion (Keith & Committee)

- Keith expressed his excitement about the layout and efficiency that the new building will provide for the program. All the planning of where the machines are to go has already been done.
- The **Tool Room** structure and organization very important. The time to think and plan for this now. Keith and the shop manager would like to look at different modern and well-organized set-ups. Keith suggested that 2 industry members from the advisory committee form a subcommittee who have connections with other shops, to provide advice.
- Travis Moore from JEMCO, Adam Grimm from Machinist Inc. were suggested.
- Guy suggested/advised that some core decisions (also due to budget) be made before spring quarter because June is when the big equipment is moved in, and instruction begins Fall 23.
- Much of the old storage devices will be used, and (new) vending machines were also discussed.

Manufacturing Internship course outcomes - discussion and handout (Keith & Committee)

- Manufacturing 196: Revisions to the master course outline for this (Internship) course
- This course is for 2nd year students, toward the end of their training, a first-time experience in the real world
- What the experience looks like depends on where they go to work and what the employer wants to do with it: ex. Boeing takes students in the summertime, but most other manufacturers take interns any quarter.
- The course is like a job trial or probation period. If the employer is looking for a hire, they may hire the student if they pass probation. The employer is only committed to working with the student for a quarter. If it doesn't work out, the student and employer go their separate ways, similar to a low grade with a class they took. So, the experience or outcome is not lost.
- Outcomes need to be more defined/structured, and there needs to be clear what each individual outcome will be.
- Opportunities are out there with state monies that support the Prof Tech Programs.
- Endorsement: if a program is endorsed, as a career connected learning program: ex Automotive and Biotech Programs are endorsed, because they have more structured internships that are a requirement of the program. Workplace experience is integrated as part of the curriculum. If your endorsed in that way, it opens funding streams for equipment, outreach and recruiting, to get more students that experience. The more optional internship makes it more difficult to meet the bar for the state to recognize it as a career connected learning program.
- Right now, internships in the program are not a requirement. How can we build the course framework to make it more accessible?
- Suggestions: Surveys – long term outcomes – what kind of feedback from the students and hiring companies? Send out surveys to graduates 2 or 3 years later: asking input from the graduates to find out how much what they've learned in this program applies to their daily job? Also, include the students who left the program early who received a job offers. They may say – "I wish I would have stayed the extra year because I would have learned this skill, and it held me back."
- Keith introduced a draft of 7 new MFGT196 outcomes changes. How this worked up until now:
    - Once the student finds an employer to hire them, one of the first things they discuss with the employer is a set of 6 learning objectives. Establishing these learning objectives puts it on the employer to think about how to integrate the future dream of the student during the 3-month internship. It also gives the students the confidence that the employer will establish the mechanics of how to get the job done.
    - Up to this point, at the end of the internship, the employer fills out an evaluation which includes how the learning objectives were addressed, and the student also files a final report, on how that went.
    - The student report can either be written, or they can present to first year students how the internship went. Keith encouraged them to include with their report: "I wish I had learned this".
- Keith wrote up 7 new outcomes, and would like for members to look through them, comment on them and suggest additional outcomes.
- It was suggested and discussed that the framework of a new Internship Class be more formalized and built on a variety of completed outcomes from the revised Manufacturing Course 196 master course outline.
- It is suggested to make the revised Manufacturing 196 course a requirement and is not thought to have a negative impact.
- To get this Program endorsed (a positive move), we need employers to write letters of support, but it has to be a requirement for the program and go through curriculum to add it.

Potential connection to Shoreline School District Engineering /Robotics Program (discussion with Dan Gallagher)
Shoreline School District merged at the General and Workforce Committee level, and where it made sense at the appropriate Advisory level. Dan said the High School Advisory meetings were doing so well, then Covid happened, and everything fell apart.

Dan attended this year's (10/20/22) Advisory Committee Kick-off, and Lindsey Virdeh met with the high school Engineering and Robotics teachers. The Shoreline School district favors the Manufacturing thread, and has Intro to Engineering, Advanced Engineering, and Robotics and Advanced Robotics. That kind of collection of courses, agree and intentionally align with Manufacturing Electronics. Dan is introducing a soft pitch and will act as guests to establish (over time) learning together, and then (providing it all works together), a merge between the college and K-12 school district. The question is: would you all be interested with this joint prospect?

Discussion:

- Guy answered yes, asked questions, and explained the Automotive model, high school students taking dual (college) credit.
- The question helps us think about the pathways for students through connecting, and asked how many high school students would SCC get from the Shoreline district into the program?
- Guy asked if Shoreline District faculty would attend the next meeting?
- Dan said he can set up a meeting with the high school teachers. He also talked about a plan from the school district side and gave examples of potential merge strategies/ideas and is thoughtful (as a guest) of what works for SCC.
- Dan said that Post-Secondary High School graduate completion rates are not high.
- Navigators, Counselors, and Advisors would play important roles in the merge strategy.
- Guy said (using Automotive as powerful example) with the brand-new awesome Manufacturing building, in one-year students can achieve a 2- year associates degree. At the high school level, they can achieve 1 year of college credit, and thus would accelerate their college time.
- Keith is enthusiastic about the potential prospect.

Discussed next meeting time: Late March or April, Monday, or Wednesday. There may be an opportunity to do a preview visit to the new building during Spring Quarter.

Adjourned: 9:22 a.m.

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