

# COMPUTER AIDED MANUFACTURING ADVISORY COUNCIL

Meeting Notes

Airport Campus, Lecture Hall, 11-14-19, 1:00-2:30



## ATTENDEES:

- |  |   |
|--|---|
| <input type="checkbox"/> Matt Barker   | <input type="checkbox"/> Sandy Bauman, Assoc. Dean Acad & Stud Affair           |
| <input type="checkbox"/> Flying M Machine & Fabrication<br>Graham Francis    | <input checked="" type="checkbox"/> Tammy Burke, Trades Division Chair          |
| <input type="checkbox"/> King Machine<br>Glen Harrison                       | <input checked="" type="checkbox"/> Angela King, Career Connections Coordinator |
| <input type="checkbox"/> Defiance Machine<br>Bruce Howard                    | <input type="checkbox"/> Mary Lannert, Dir. Cont Educ/Workforce Develop         |
| <input checked="" type="checkbox"/> Diversified Plastics, Inc<br>Ken Johnson | <input checked="" type="checkbox"/> Laura Vosejpka, Dean                        |
| <input type="checkbox"/> CM Manufacturing<br>Tom Lund                        | <input checked="" type="checkbox"/> John McLaughlin, Instructor                 |
| <input type="checkbox"/> Defiance Machine, Inc<br>Dustin Nelson              | <input checked="" type="checkbox"/> Paul Nicholson, Instructor                  |
| <input checked="" type="checkbox"/> Boeing Company<br>Dale Poling            | <input type="checkbox"/>  |
| <input type="checkbox"/> Elite Iron<br>Cody Smith                            | <input type="checkbox"/>  |
| <input checked="" type="checkbox"/> Pioneer Aerostructures<br>Jim Weber      | <input type="checkbox"/>  |
| <input type="checkbox"/> Capital High School                                 | <input checked="" type="checkbox"/> Bridget Guerin, Administrative Associate    |
| <input type="checkbox"/>   | <input type="checkbox"/>  |
| <input type="checkbox"/>   | <input type="checkbox"/>  |

## 1. Introductions

- DN from Boeing: CNC & automation with digital mapping need a foundation; employees will shadow for several months before working machines because they are very specialized.
- BH from Diversified: Employees do a job from start to end; they can read CAD & CAM, but they don't understand it. They are looking for more manual program with g codes/CAN codes.
- All new employees will need additional training after hiring at a business.

## 2. Curriculum and Instruction

- Are there any suggestions for the upcoming curriculum review?
  - Business partners commented that the Manual Program is fantastic.
- Identify and expand the use of new technologies.
  - DDSN135 Solidworks will replace MCH120 Blueprint Reading
    - This is a good idea; solidworks should be applied throughout the year.
    - MasterCAM and solidworks are very similar.
  - DDSN135 will make use of the 3D printer
  - Blueprint reading will be integrated into other classes throughout the year.
    - Blueprint will be involved in several other courses which will give the students more time to learn it.
- Compare content with occupational competencies and tasks.
  - First Year students are required to obtain 6 certifications in precision measurement.
    - NC3 Certifications – on-line activity that involves 3 sections (do – apply – exam); students get 3 chances to certify for each.
  - Second Year students are required to obtain both FANUC and HAAS operations certification.
    - FANUC is all on-line trainings; HAAS is on-line with homework and each unit is themed.
  - Class projects are updated for relevancy. Students will make some of their own tooling, which they will be using to complete additional class projects. The learning outcomes will remain the same.
    - Designing their own tools is an excellent end of semester project.

## 3. Program Review

- Assess, recommend, and/or provide equipment and facilities.
  - 3 new manual lathes are in the works for purchase. This will reduce students needing to fix and maintain machines.
- Assist in short and long-term planning for program improvement.
  - BK stated that a tremendous amount of knowledge is gained from going to HC; he appreciates the open communication.
  - Business partners feel strongly that HC keeps manual training a full year with the thought that “if you don’t use it – you lose it”.
  - 2<sup>nd</sup> year: lathe & CAM project – start with code and be able to read a program – plus be able to know the problem areas.
  - 2019-2020 Enrollment decreased:
    - Fall 2018: 30 first year students (15 night and 15 day), 10 second year students
    - Fall 2019: 10 first year students, 15 second year students
  - Night machine program is no longer offered.
    - HC is trying to keep the day program robust; night classes typically have high & low enrollment every other year.
      - Night class has shut down till it is really in high-need again.
  - Two new instructors

- John McLaughlin first year
- Paul Nicholson second year
- Curriculum review is in process (the last review date is unknown)

#### 4. Recruitment and Job Placement

- Notify instructors of entry-level job openings for students.
  - Employers are encouraged to contact the Helena College instructors to schedule meetings with students and or student groups regarding job opportunities. Department instructors will organize these events.
    - Angela King will be having a Job Fair in the Spring at HC.
      - The goal is to have students ready with a resume' to have interviews on-site, and match the correct business with the correct student/future employee.
    - Helena WINS will also be holding a Manufacturing Night in the Spring at HC.
      - Parents will be invited/encouraged to attend with their child (grades 9-12), and everyone will tour the HC APC, participate in an activity, and get information.
  - Employers are encouraged to provide or obtain cooperative work experiences, internships/externships, work/study or work-based learning opportunities for students.
    - Studies show that by 2028 there will be 3 million unmanned machining jobs – the need for educated machining students is high.
    - Job shadowing really impacts the business and slows production.

#### 5. Student Organizations

- FMOA?
  - Possibly building a fire arm; waiting on student senate agenda.
  - Hoping to do community projects with the proceeds going to the club.
    - City wants to partner with HC.

#### 6. Staff Development

- Review professional development plans.
  - First year instructor will obtain Snap-on precision measuring certification.
    - John M. will be going to Arizona in February.
  - Second year instructor will obtain FANUC instructor certification.
    - Paul N. is working on-line for training.
  - HTECH Conference for HAAS is being offered in NY next summer.

#### 7. Resources

- Provide tours and field trips, job shadowing experiences and speakers.
  - Boeing field trip for all students
    - December 12, 2019
    - December 9, 2019 Dustin will visit HC for a presentation.
  - Kalispell area for all students
    - Diversified in Missoula – FMOA sponsored trip