
Helena College Mission:

Helena College supports our diverse community by providing the paths and tools necessary to assist learners in achieving their educational and career goals.

**CNC Advisory Board Meeting Minutes
Tuesday, September 23, 2024 1:00 p.m. APC Room 209**

I. Introductions:

Advisory Board Members:

Preston Watts – Pioneer Aerostructures
Cody Smith – Pioneer Aerostructures
Nicole Hollenbeck – Diversified Plastics, Inc.
Jasmine Russel – Diversified Plastics, Inc.
Bruce Howard – Diversified Plastics, Inc.
Danny Farr- Haas
David Ehlert – Boeing Company

Helena College Representatives:

Paul Nicholson – CNC Machining Instructor- 2nd year
John McLaughlin – CNC Machining Instructor -1st year
Sandra Bauman – Dean/CEO
Stephanie Hunthausen – Executive Director of Career Technical Education
Kathy Mortimore – Career Trades Specialist
Melissa Mousel – Program Manager -CTE

II. Program/Department Updates

A. Curriculum and Instruction Updates:

- John replaced DDSN 135 Solidworks with DDSN 132 Mastercam Solids. This will be the first year the students have had MasterCam before the second year. This will help us determine if the switch to MasterCam was beneficial to students in second year to delve deeper into the program.
- Paul is in the process of reviewing some GD&T educational materials. He plans to implement GD&T into the current curriculum with possible course changes in the future depending on the effectiveness of the short-term implementation.
- Last year, Paul implemented timed practical machine setup exams for both lathe and mill. This was successful and will be continued. It helps students to learn to

finish tasks in a reasonable amount of time which is what they will be expected to do in the workforce.

- Students have been incorporating C and Y manual programming of the HAAS ST-20Y to complete first semester parts in the second-year classes.
- First year students are required to use four jaw chucks on all projects and are tested at midterm for competency.
- 2 new manual vertical milling machines are now up and running. This makes five new manual milling machines in the past two years.
- Discussions are being had about replacing the FANUC control panels with updated versions to stay in compliance with the FANUC certification criteria.
- Paul would like to replace the 24-year-old HAAS VF0 with a new HAAS VF2.
- Enrollment updates:
 - Fall 2023: 10 first year students, 7 second year students
 - Fall 2024: 8 first year students, 10 second year students
- 5-year program review is in process for this year

B. Staff Development:

- First year instructor will be assessing the courses -MCH 132 Intro to Milling Machines and MCH 137 Advanced Milling Machines and updating the outcomes and submitting them for approval. These processes are becoming obsolete in the workforce.
- Second year instructor successfully obtained tenure status last spring.
- Paul plans on getting more GD&T training.

C. Recruitment and Job Placement:

- We ask that employers 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.
- First and second year instructors will continue to visit shops to further understand what these shops do. This will help students and employers find a better fit.

D. Resources:

- Our instructors provide tours and field trips, job shadowing experiences and speakers. If any employers have a guest speaker in mind, please contact our instructors to set up a time.
- Boeing field trip for all students this semester.
- Pioneer Aerospace field trip this semester.
- Spring semester field trips are being discussed. Our instructors are looking at alternating between Bozeman and Missoula to give the students a wider range of possibilities in the workforce.

III. Topics for Discussion

A. Student Performance:

- What would cause you not to hire a Helena College graduate?
Speaking in General-not Helena College graduate specific employees identified the following reasons for not hiring a candidate.
 - bad attitude, how they interact with peers and supervisors.
 - lack of communication skills
 - interview techniques – how to sell themselves
- What do our recent graduates seem to struggle with most?
 - all present are happy with the skill set of graduates
 - scale of projects/size training
- Have you identified any gaps in the knowledge or training of our graduates? If so, can you please expand on the identified gaps?
 - if students can work part time while going to school it is a huge benefit
 - more hands on is best
 - Diversified Plastics would be willing to place students in internships over Christmas break

B. Student Preparation:

- What non-technical (soft skills, 21st century skills, employability skills, etc.) are most important to you?
 - team work
 - communication between teams/shifts
 - technical communication from one team to the next
 - email and phone communication skills
 - some don't ask any questions, or ask the same question over and over again (confidence issue)
 - leaving notes for the next shift: "the following guy is only going to do as well as the guy that set him up"
 - critical thinking- asking why is this process the way that it is and looking for optimization of processes
 - organization and cleanliness of area and putting things back where they belong, which makes people more efficient
- Are any changes needed in our curriculum or program offerings? If so, what do you suggest?
 - continue with GD &T
 - manual inspections and how to use different types of inspection tools
 - have other employees/students do inspections of others' work
- What does a new grad need to know on day one of a new job with your company?
 - show up on time.
 - be willing to ask questions to keep learning on the job
 - self-driven motivation

C. Upcoming needs:

- What trends, in technology or other areas, do you see in your industry that may require new skill sets for workers?
 - Automation integration introduction (what logic to put into co-bots)
 - probing systems to check for tolerance inspections
 - high speed machining
 - MasterCam –servicing options and what is best to use for each project
- Do you think we should explore Cobot Automation?
 - students need high level attention to detail. Need to develop written processes to (SOP) make sure not missing a step.
- Do you use laser marking tools to mark your parts?
 - most do not at this time
- Tooling
 - work on different projects (tiny parts with tight tolerance, to larger projects, and how to hold onto the part)
- What are your anticipated workforce needs? In 1 year, 3 years, 5 years?
 - Hiring is steady for all employers.

D. Other:

- Are there other people or employers you would recommend for this advisory board
 - Olympus Arms here in Helena
- What ideas do you have for recruiting new students/ your future employees
 - get high school shop classes to tour or go to them to present

IV. Wrap up and Summary of Takeaway

- Communication: Employers continue to emphasize the importance of communication and soft skills, particularly the ability to work as part of team, ask questions, and present themselves well in an interview. Some of the employers would be willing to participate in mock-interviews, which we will share with our COMX 106 instructor. Also, we could consider adding a tie-in project to our curriculum to help students learn how to communicate effectively within a group.
- New technology and skills: Our program should look for ways to incorporate GD&T, automation, probing and inspection into curriculum or as part of special projects.
- Student data: When the machining instructors complete their five-year program review (spring 2025) they will plan to share some of the interesting findings (specifically regarding student enrollment and demographic trends) at the next machining advisory board meeting.