

Minnesota West Community & Technical College
Precision Machining Advisory Committee Meeting Minutes
Granite Falls Campus
December 17, 2018, 4:30pm

Members Present: David Yaeger, Former Faculty Member
Tim Schulte, Tolomatic
Dewey Pile, DP Machining
Chad Gregoire, Specialty Industries, Inc.
Jacque Peters, Chandler Industries, Inc.
Robyn Liese, Spec Systems Ritalka, Inc.

College Staff: Ray Louwagie, Faculty
Dawn Regnier, Dean

Called to Order: 4:30 p.m.

Approve Minutes 4/23/2018 Meeting: Jacque P. motioned, Dewey P. Second; Minutes approved

Welcome & Introduction of Members

Old Business / Updates: Ray provided the update for the committee on the following topics:

Equipment:

- Citizen B12 Swiss Lathe donated from Specialty Manufacturing now in full operation with 12' bar feeder moved equipment around to accommodate operation will concentrate on use during Spring semester.
- Equipment and supplies no longer being used were sold online with Hoffman Online Auctions in September yielding \$8,300 to the College.
- The LED electronic panel on the Milltronics mill was repaired for \$240.00.
- Purchased a pedestal buffer for deburring not used for grinding.
- New desks and chairs for the classroom were purchased with funds from Granite Falls Student Senate at the end of last Spring semester.
- Two 2018 graduates are pursuing their AAS degree and should complete by end of Spring semester 2019.

Marketing & Promotion

Ray shared that Nicole Zempel is the Marketing/Recruiter for MN West at the Granite Falls Campus. Nicole is very outgoing and actively markets the Precision Machining program and schedules high school and other events.

- Hosted the Yellow Medicine East 9th Grade students for the career/manufacturing awareness
- Presented to Metals Manufacturing class Tracy High School May 2018.
- Attended the Career Expo for 10th grade high school students in October; SMSU in Marshall 1,200 students MN West in Worthington 930 students.
- Fall Semester Field trips included DP Machining; Specialty Industries; and Chandler Industries.
- Participated in Morris High School Career Day in November; from that Ray invited to meet with Ag class.
- Scheduled to present to Hills Beaver Creek High School January 6, 2019 Ray's nephew is one of the teachers.
- Scheduled to host the Breaking Traditions high school student program in Precision Machining over 40- 9th grade students from area high schools participated at the Granite Falls Campus March 5, 2019.
- Working with Gail Polejewski, SW/WC Service Cooperative to schedule high school presentations during 2019.
- Received Student Senate funds for purchase of jackets for Ray & students with MN West and Precision Machining on each.
- Spring Semester Field trips included Nova Tech; Tolomatic; Fey Industries; and High Performance Engineering in Sioux Falls, SD

Committee Members comments and questions regarding marketing and promotions. Jacque P. suggested having a brochure/flyer available for the upcoming events at the teacher conferences to get the information to the parents. Also asked if Ray attends the events alone or if brings students. Ray responded that it is a combination of just Ray, and Ray accompanied by Nicole and students. Advisory members reinforced having students or recent graduates of the

program accompany as they are closer in age and high school students relate better, may “hear” the message in different manner.

Introduction to Manufacturing and Engineering: Offered in partnerships with the 5 high schools in the Minnesota River Valley Education District including Lakeview (Cottonwood); MACCRAY (Maynard-Clara City-Raymond); Montevideo; Renville County West; and Yellow Medicine East (Granite Falls-Clarkfield). Results include:

- 14 High School Students participated; all males (11th & 12th Grade)
- Purpose of class was to increase awareness for manufacturing careers and education programs
- The course divided between Precision Machining 27 hours; Welding 28 hours; Mechantronics/Engineering 27 hours. Students came to MN West Campus Tuesday, Wednesday, Thursday from 8am-9:30am. On Monday/Friday the students learned employability skills, resume preparation, job application completion, soft skills, and participated in Job Shadows.
- Each student participated in 3 job shadows with local employers including Chandler Industries, Spec Systems; Avicenna Technology, Inc., Fagen, Inc., Granite Falls Energy, K&M Manufacturing.
- Student survey results indicated they were all pleased with the course, they learned much about the manufacturing industry that they did not know, and would tell their friends to take the class.
- For Precision Machining the students were in the lab each day with the College students. The project was to design, program and make a CNC name plate. Ray showed some of the projects and shared that he was pleased with the class and their performance. The Advisory members indicated it was a good marketing opportunity and hoped it would continue.

Dewey asked about other CTE courses offered in the high schools. Ray and Dawn discussed the other CTE programs offered. Ray also discussed the training program he is scheduled to deliver to the High School Agriculture teachers during Spring semester. Many of the new Agriculture teachers are female and lack the mechanical/metal working skills.

New Business:

Schedule/Classes/Course Modifications:

Ray discussed the process used to compare MN West courses/curriculum with St. Paul College, Pine Technical College and Alex Tech. Based on the comparison Ray proposed the following course/curriculum modifications to better reflect accuracy of the content and concepts actually delivered and to update course titles to be consistent with other Colleges:

- MACH 1410 Print Reading & Precision Measurement:
 - Name change to Interpreting Engineering Prints I
- MACH 1460 Print Reading for Machinists:
 - Name change to Interpreting Engineering Prints II
- MACH 1440 Vertical Milling I (2 credits) and MACH 1450 Lathe Turning I (2 credits):
 - Combine & Name change to Machining Fundamentals & Processes I (4 credits)
- MACH 1400 Metal Composition & Classification (1 credit):
 - Name Change to Metallurgy & Machining Calculations ½ semester geometry & trigonometry and machining math shop calculations ½ semester metallurgy no credit change
- MACH 1470 Surface Grinding (2 credits): Discussed that 2 credits is too much time to dedicate Ray will cover by will incorporate into Machining Fundamentals II.
 - Eliminate Surface Grinding add 1 credit to MACH 1425 and 1 credit to MACH 1435
- MACH 1455 Lathe Turning II & MACH 1445 Vertical Milling II:
 - Combine & Name change to Machining Fundamentals & Processes II (4 credits)
- MACH 1425 & MACH 1435 (3 credits each) Add (1 credit) to each course.

Ray discussed the lab projects. Ray has reduced the number of projects/assignments and made each assignment a combination of manual/CNC processes for each including the puzzle, trailer hitches, incorporating the travel dial adapter make pockets, drill holes JT33 taper, deburring, handles for drill bits. Also incorporating more assignments for the Swiss Lathe. Also requested feedback on creating pre-requisites completing Fall courses to register for Spring semester courses.

After significant discussion the following feedback was provided by the Committee members:

Tim S.: Good concept to incorporate Machining Fundamentals more reflective of how really teaching the program and agreed to have it labeled correctly.

Dewey P. Agreed the changes make the program more appealing on paper and align with other Colleges; suggested we go with the changes; it is selling and marketing and we need to concentrate on recruiting more students.

Jacque P. Agreed the changes are better to keep up with the times. Also clarified that for MACH 1420 & MACH 1425 the word "Machine" is redundant and could be removed.

Dewey P. motioned to approve the course modifications as discussed; Tim S. seconded; Motion approved.

Ray and Dawn will prepare the necessary course/curriculum/program modification documents and begin the process to work with the local curriculum and Academic Affairs and Standards committees for approval in preparation for Fall 2019.

Program Sustainability & Shared Risk Model Discussion:

- Dawn R. provided a handout showcasing Shared Risk models/industry partnerships in Carpentry, Mechatronics, & Welding and discussed the models and viability to compliment strategic investments made by the College to launch and sustain programs. Also provided the program study results and demonstrated the financial details for Precision Machining in FY17 and FY18. Discussed the consistent enrollment of 6 students each of the past 3 years; the true enrollment target is 12-15 students for long term viability.
- Dawn R. candidly discussed the need for direction and support from our Advisory members and requested help from them to increase student enrollment and resources for the program sustainability. Dawn R. shared that MN West has received requests from employers in the Jackson/Worthington area to establish a Precision Machining program in that area of the MN West service region. In response MN West has dedicated strategic initiative funds to modify the physical facility at the Jackson Campus to better utilize the welding space and create a metal manufacturing program focus. At this time the decision has not been made regarding program location/expanding program delivery areas, etc. The discussion is being initiated at this meeting first. The meeting with employers in the Jackson area is planned for early January 2019.
- Based on the request for support with student employee enrollment or new employee enrollment, Dawn R. also provided information about the Minnesota Pipeline Dual Training Grant Program and Minnesota Apprenticeship Initiative program for the Advisory Committee and discussed the program details and application process. The deadline for the upcoming round of Pipeline Dual Training Grants is May 2019 and MN West will assist with the application requirements.

Reaction and Discussion by Committee:

- Difficult to start the program again after it was closed down. Perception out there is that it may be inferior compared to other established programs. Discussed the Alex Tech program enrollment and 2 year program. Two instructors, one more seasoned one recent graduate. The recent graduate does significant marketing with high schools and gets the parents and students to campus. Once on Campus the seasoned instructor seals the deal. Faculty also assist students in securing employment and scholarships. Suggested Ray and Dawn contact Alex Tech. Also suggested software and making something attractive for the "computer gamer" type student to attract to the program.
- Challenge to compete with a 2 year program for content delivery; Jacque P. also indicated that for some students a 1 year quality program could also be a major selling point. Tim S. & Dewey P. stated that the program teaches the student and potential employees "how to think". The 2nd year often concentrates on mold making, die making and fixtures with emphasis on problem solving and critical thinking.
- Dewey P. suggested to showcase the Swiss machining component because Swiss is hot now and few schools cover it. Students with solid Swiss skills command higher pay often \$22-\$25 entry level.
- Dave Y. & Chad G. students are really the best recruiters and choosing the right student with the knowledge and charisma is hard to find sometimes. Chad G. offered that Annie could possibly be released from her shift to assist with student recruitment; Dewey P. also indicated that one of his employees, James, may also be available to assist.
- Discussed the Build South Dakota program as also a challenge for MN West. Dawn R. offered the details and the Workforce Development and Occupational Grant programs in MN as a bit comparable. The significant difference is the private sector started the program in SD and partnered with the SD legislature. Minnesota working in that direction, just not in place to date.

After significant and serious discussion and consideration, Jacque P. and Dewey P. motioned to support the sustainability strategies and initiatives; seconded by Dave Y. Motion approved. Jacque P. indicated that Chandler

Industries is willing to explore the Pipeline program to support student employee enrollment coupled with the tuition reimbursement program. Robyn L. will take the information back for discussion with Ritalka management team.

MPMA membership \$280 annual fee: Ray discussed and requested approval from Committee; approval received.

Simulation Equipment for Marketing/High School Presentations: Ray showcased a couple of table top CNC engraving machine costs \$500-\$1,000. Asked for input and approval from Committee. Committee supported the addition and purchase to enhance recruitment efforts.

Introduction to Machining Evening class: Jerry Rupp and Ray L. offered a 24-hour introduction course for 7 adult students and charged \$199 per student last year. The students indicated that it was very valuable and suggest it is offered again. Plan to offer again this Spring and hope it will be a feeder into the diploma program.

Meeting adjourned at 6:55 p.m.