

10/30/2019

Northland Community and Technical College

Competency-Based Education

Industry Meeting Notes

Attendees:

Andrew Dahlen – Manufacturing Instructor – Northland Community and Technical College
Curtis Zoller - Associate Dean, Aerospace & Agriculture - Northland Community and Technical College
Brian J. Huschle – Provost - Northland Community and Technical College
Charlie Rognerud - Manufacturing Engineer-GFVS-weldments – Steffes
Curt Hansen – Training Manager - American Crystal Sugar Company
Lloyd Kennedy – Factor Manager - American Crystal Sugar Company
David Rhode – Plant Manager – New Flyer of America
Kenneth Brejcha - Lean Facilitator – New Flyer of America
Tom Leuthner - Pine to Prairie Cooperative
Frank Walski – Owner – Northern Valley Machine
Jason Schiller - Sales Executive – Northern Valley Machine
Vicki Hamm- Human Resource Manager - Marvin Windows Grafton
Matt Jensen - Automation & Controls Supervisor - Marvin Windows Grafton

Overview of Competency-Based Education at Northland.

- Open entry open exit.
 - Many calendar options to start taking classes. Ideally any day of the year.
 - Not limited only to a Fall or Spring Semester Start.
- Individual Learning
 - No set class schedule
 - Self-paced. Able to accelerate through or take additional time without penalty.
 - Modules are a combination of online content, textbook materials, videos, hands-on labs.
 - Students progress through modules independently.
 - Some of the work can be done off-campus, online.
 - Instructors assist students as needed.
 - Student must demonstrate a mastery to advance. Hands-on project assessment is preferred.
- Flexible Schedule
 - Entire menu of classes offered year-round
 - Extended lab hours including evenings.
 - Schedule fits the students available time.

After reviewing the Competency-Based Framework, the Industry Partners were asked share benefits and concerns about this model.

1. New Flyer has immediate training needs. One identified weak area is electrical troubleshooting skills and PLCs. This program can not be offered soon enough. Right now there is a need to run 6-8 people through a basic electricity program.
2. American Crystal Sugar – This CBE program may not be sustainable if it only targets existing employees. ACS is not likely going to be training the operators. Challenge is to fill the openings that we have right now. Also have concerns about if an employee is developed, what is to stop them from going somewhere else. ACS has unique, heavy equipment. Northland can't afford the equipment to develop training specific to ACS.
3. High schools don't have as many wood shop, welding, or trades classes. There is a big gap being created by a lack of high school tech ed.
4. ACS is working with the Mechatronics program in Bemidji. They use E-learning and offer 8 subjects. ACS implements this as a volunteer program for employees. ACS pays for the workers to do the labs. They have hired 2 Electronics Controls Technicians from Bemidji.
5. Northern Valley Machine needs machinists and assemblers. NVM will train in house, but need bodies to train. NDSCS in Wahpeton has amazing facilities but there are only 9 students in the program. Recruitment problems goes back to the high school level. We need more shop classes. East Grand Forks School used to have a machining program which was a hub for other schools. The students need to see it. The early exposure to machining can lead to a career.
6. Pine to Prairie Cooperative is currently working on a grant opportunity to get woodworking CNC routers into 38 school districts. P2P to provide training (professional development) for the teachers. A challenge is finding qualified instructors. This CBE model may be a way to help train teachers.
7. Steffes needs people who pay attention to detail, take pride in their workmanship. Grand Forks School is building houses, but not much else. Steffes has a university program that is outsourced. Steffes likes the internship model used in the Northland welding program. This has been useful in getting welders in the door.
8. Marvin Windows has run two students through the MAPT Program. The formal structure is not accommodating to folks living in Grafton. The commute is challenging. The Competency-Based model is attractive, but we have concerns about it being "fuzzy". Without the formal class structure, how successful will students be? Will students complete the program, or will they procrastinate? Other programs that use this model have observed this problem. At Kellogg Community College the faculty insist that it takes some getting used to for high school students to succeed in this model. Once they catch on, subsequent classes are much easier.
9. Marvin Windows – Please change the name of the Manufacturing Process Technology Program. Students don't know what this is. Mechatronics.
10. Marvin Windows has a number of 90's era mechanics. They need more training to learn about automated machinery such as PLCs.
11. Manufactures in this area need new people. There isn't a big influx of new people, we keep hiring the same people and stealing people from other companies. The industry needs a salesman that can attract new people.

Next Steps:

1. Northland is working to develop the competency-based curriculum. We need industry expertise to ensure we have the right curriculum and to identify if there are any missing items.
2. Northland needs strong partners to ensure that this is a successful launch. It is important that we have a strategic objective and that we don't lose contact.
3. Northland believes the Manufacturing Program will be successful when delivered in Competency-Based Education model and backed by strong industry partners.
4. Industry partners encourage Northland to take factory visits to better understand their needs.