

TEAM SD TAACCCT ROUND 4 EVALUATION BRIEF – AUGUST, 2017

TEAM SD FOCUS

Launched in October of 2014 with a grant from the US Department of Labor, the Transforming Education for Advanced Manufacturing in South Dakota project (TEAM SD) involves five programs at LATI. Those programs include: Electronics/Robotics; Energy Operations/Technology; High Performance Engine Machining; Precision Machining; and Welding Technology.

The TEAM SD work focuses on four components: pipeline development and

expansion; curriculum enhancement and expansion; an accelerated education model; and improved employer relationships and industry involvement.

Three data sources were collected and analyzed as the basis for this brief: the 2017 winter interviews with TEAM SD leaders and instructors, the TEAM SD Student Survey, and the Targeted Instructional Observation Data.

WINTER INTERVIEWS REVEAL THREE HIGHLIGHTS

Three highlights surfaced as a result of the winter interviews: **innovation, performance-based assessment, and quality.**

Implementing the **“Grow Your Own” Business Model has been an innovative highlight.** Through a great deal of communication and cooperation, an employee of Graco located in Sioux Falls, SD was able to pursue an online hybrid degree in which he took theory online and accomplished the lab requirements on-site at Graco under the supervision of another Graco employee. In May, the employee was awarded a 9 month

certificate in Precision Machining and is enrolled in the fall to complete his Associates Degree. Discussions are ongoing with businesses in Brookings, Aberdeen, and Milbank to replicate this process.

Another innovation apparent at LATI is the **extent of performance-based assessment opportunities made available to LATI students.** All students in the Advanced Manufacturing programs have to demonstrate they are skills proficient and work force ready before graduation. However, the LATI students are often provided with opportunities that require them to stretch beyond the minimum requirements. The Electronics/Robotics students are required to participate in **Robot Games** as their “capstone” project, a multifaceted assignment that requires teams of two students to apply all the knowledge gained during their academic program to build robots according to a specific set of criteria. Advisory board members volunteer their time to act as judges for this event.



Robot Games - 2017

These Robotics students are also encouraged to apply for the NASA National Community College Aerospace Scholars Project, a five week program which culminates with a four-day on-site event at a NASA flight research center. Three Robotics students participated in the program in 2017. While on-site, students work in teams to develop and test a prototype rover for a fictional company interested in Mars exploration. When asked what was learned at NASA that helped with the development of the robots for Robot Games one student replied, **“It is more what did I learn at LATI that helped me with the work at NASA.”**

There is a cultural of continuous improvement at LATI resulting in quality programs and quality graduates.

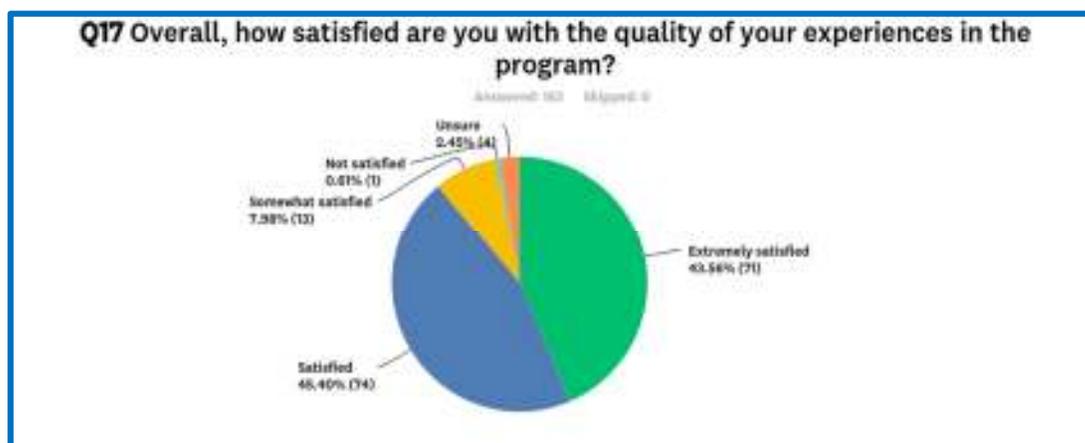
This culture of continuous improvement and focus on quality resulted in LATI winning the 2017

Aspen Prize for Community College Excellence. (<https://www.aspeninstitute.org/>) The Aspen review committee recognized the focus on improvement at LATI. **“...it may be no surprise that LATI is the only college to earn the honor of Finalist with Distinction in all three previous cycles of the Aspen Prize. Its top honor for this year’s Prize reflects not only strong overall performance but also a consistent dedication to improving**

THE SURVEY SAYS

One hundred sixty-three students responded to the TEAM SD TAACCCT Student Survey. The student responses were overwhelming positive.

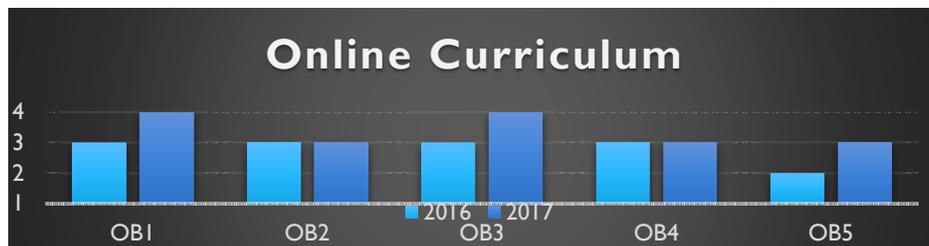
- 89% of students were satisfied or extremely satisfied with program structures.
- 88% of students were satisfied or extremely satisfied with instructors’ management of content delivery.
- 90% were satisfied or extremely satisfied with instructors’ responsiveness to their questions and needs.
- 89% were satisfied or extremely satisfied with the quality of their experience in their program.



TARGETED INSTRUCTION FOR ADVANCED MANUFACTURING STUDENTS

Five selected Advanced Manufacturing instructors received targeted instructional assistance from the newly hired Instructional Designer and Instructional Technology Specialist. Instructor interviews confirmed how valuable this one-on-one guidance was for the instructors especially in designing and delivering online curriculum. The Instructional Designer and Instructional Technology Specialist observed the selected instructors in the spring of 2016 and again in 2017. They then rated the instructors as performing at 1-novice (Much of the course is under construction, with a few key components identified), 2-beginning proficiency (Course is organized and navigable. Students can understand the key components and

structure of the course), 3-advanced proficiency (Course is well-organized and easy to navigate. Students can clearly understand all components and structures of the course), or 4-exemplary (Course is well-organized and easy to navigate. Students can clearly understand all components and structures of the course. Additional materials related to successful strategies for completing online courses are provided) levels in the spring of 2016 and 2017. The five selected instructor ratings are represented in the graph below. The most dramatic instructor growth was observed in designing and delivering online curriculum... **a 21% rate of change** from 2016 to 2017.



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