

Final Report Program Information by TOP Code

District/College: CERRITOS CCD/CERRITOS COLLEGE
 Program Title: Machine Tool Technology

Agreement No.: 17-C01-006
 TOP Code: 095630

Briefly describe the program improvement issue(s) concerning this TOP code.
 The Machine Tool Technology Program scored below the district negotiated levels in indicators 2, 3, 5a & 5b. The reported outcomes indicate that the program should focus on completions, persistence, and transfer, and non-traditional participation and completion. The persistence indicator is low due to the usually strong job economy for students and the continual retirement aging workers within the industry. Most students tend to update their skill sets up to the point needed in their employment. These students usually do not have a direct incentive or motivation for completion after completing the minimum amount of courses needed for their employment. Transfers continue to be a challenge as few programs closely relate to Machine Tool Technology at the university level. Non-traditional participation and completion outcomes are still an issue as is common in most manufacturing-related male-dominated industries.

Briefly describe how the issue(s) will be addressed.
 The program currently makes various efforts for improvement. The program provides, monitors, and assists students with a progress checklist that tracks their progress towards completion of certificate and/or graduation requirements. The program continues to work with campus counseling and career services to assist students through course planning, options for transferring, and employment opportunities. The program continually assesses current industry needs and trends to update course content where appropriate. Part of this continual assessment involves ongoing efforts to introduce and provide advanced machining courses within the program. This provides an incentive for students to maintain enrollment or return for degree completion as it provides them with opportunities to seek and meet the requirements for positions in the industry beyond their current skill sets. Additionally, the program collaborates with the other technical programs on campus such as engineering design, plastic manufacturing, and welding in order to provide students a well-rounded technical education that could also motivate students to seek further education to fulfil intellectual and practical curiosity. The program continues to participate in outreach activities such as Majors Day, Manufacturing Day, local High School Career Days, and Non-traditional Careers for Women events. Finally, the program maintains articulation agreements with local high schools and has plans for further expansion.

Final Report Summary:
 1. Was the program improvement issues(s) addressed and/or planned objectives met (Narratives limited to 1000 characters)?
 If the response in Section 1 is **No** or **Partially** describe the barriers and/or lessons learned in Section 2.
 If the response in Section 1 is **Yes** or **Partially** describe the accomplishment and/or effectiveness practices derived from the project in Section 3
 Select Yes No Partially

2. Describe any barriers encountered and lessons learned (Narratives limited to 1000 characters).
 There are only two females working in the industry currently enrolled in our program to update their skillsets to advance in their careers. The fact that the Machining Industry remains a male-dominated industry continues to be a challenge for attracting new female students. The program continues to provide opportunities for high school students with the Career Pathway Program for Machine Tool Technology. Concerning student completion, most students are employed in the industry while also enrolled within our program in order to update their skillsets for career advancement. These students take longer to complete their certificates or degree requirements due to returning to their employment after taking a needed course. Transfers remain a challenge for the department partly because there are no university level programs closely related to Machine Tool Technology and students are not motivated to take General Education courses for transfer requirements because their immediate interests in enrollment concern acquiring additional technical skills to advance in the industry instead of pursuing a degree. The lessons learned from these challenges are that students do not see the long-term benefits of certificate or degree completion. Students are invested in the short-term goal of advancing their careers in the industry with our courses. An ongoing goal for the program involves making students aware of the long-term benefits of completion. We monitor student progress towards completion, and remind and assist them with the certificate/degree application process. The program also maintains efforts collaborating with high schools to nurture interest for Machine Tool Technology, especially with non-traditional students.

3. Describe accomplishments/best practices derived from the project (Narratives limited to 1000 characters).
 The Department continues to attract students from other CTE majors such as Engineering Design, Plastic Manufacturing, Welding, and Automotive Technology who are looking to broaden their knowledge and skillsets to strengthen their versatility in their prospective industries. The high school articulation agreement with local high schools continues to provide high school students college credit and incentives to enroll in the program to further their education. The program maintains strong efforts in modernizing and expanding its inventory of cutting-edge machinery. The program continues to participate in the College's student recruitment efforts and events including Senior Preview Day, Manufacturing Day, and non-Traditional recruiting events for women. The program continues to attend local High School Career Day events to introduce and raise awareness of the Machine Tool Technology industry, potential employment opportunities, and career paths to encourage enrollment in the Program's course offerings.

Requirement for Uses of Funds	MET	UNMET	NOW MET
1. Strengthening the academic, and career and technical skills of students participating in CTE programs through the integration of academics with CTE programs. [§135(b)(1)]	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Link CTE at the secondary and the postsecondary levels, including by offering elements of not less than one program of study described in §122(c)(1)(A). [§135(b)(2)]	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Provide students with strong experience in and understanding of all aspects of an industry, which may include work-based learning experiences. [§135(b)(3)]	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Develop, improve, or expand the use of technology in CTE, which may include training to use technology, providing students with the skills needed to enter technology fields, and encouraging schools to collaborate with technology industries to offer internships and mentoring programs. [§135(b)(4)]	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Provide in-service and pre-service professional development programs to faculty, administrators, and career guidance and academic counselors involved in integrated CTE programs, on topics including effective integration of academics and CTE, effective teaching skills based on research, effective practices to improve parental and community involvement, effective use of scientifically based research and data to improve instruction. Professional development should also ensure that faculty and personnel stay current with all aspects of an industry; involve internship programs that provide relevant business experience; and train faculty in the effective use and application of technology. [§135(b)(5)]	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
6. Develop and implement evaluations of the CTE programs carried out with Perkins I-C funds, including an assessment of how the needs of special populations are being met. [§135(b)(6)]	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Initiate, improve, expand and modernize quality CTE programs, including relevant technology. [§135(b)(7)]	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Provide services and activities that are of sufficient size, scope and quality to be effective. [§135(b)(8)]	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Provide activities to prepare special populations, including single parents and displaced homemakers enrolled in CTE programs, for high-skill, high-wage or high-demand occupations that will lead to self-sufficiency. [§135(b)(9)]	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

Describe specific future activity(ies) intended to address the remaining unmet requirement(s) (Narratives limited to 4000 characters):