

Final Report Program Information by TOP Code

District/College: CERRITOS CCD/CERRITOS COLLEGE
Program Title: Computer Programming

Agreement No.: 17-C01-006
TOP Code: 070710

Briefly describe the program improvement issue(s) concerning this TOP code.
The core indicators needing attention for this top code are 5a-Nontraditional Participation and 5b-Nontraditional Completions. The department needs to research better ways to serve these special populations. The department has plans to teach courses in innovative new ways in the the ALC (Advanced Learning Classroom) but the classroom is not yet functional due to a lack of funds to complete the design of the room. The department needs to research C-ID status for some of its existing courses to facilitate the development of an Information Technology pathway. Additional tablet computers need to be purchased for use in the mobile application development classes using Android tablets. Hardware and software in use in programming labs and Unix Operating Systems labs needs to be updated or replaced.

Briefly describe how the issue(s) will be addressed.
The department will work to complete the design of the ALC and acquire and install new hardware and software to provide maximum flexibility and a fully professional teaching and learning classroom. Flipped classes will be offered in the ALC to increase student interest and to experiment with instructional delivery modes that will address student success. Interactive whiteboards will be purchased. Information Technology model curriculum will be created (if necessary) and curriculum for existing courses will be updated to meet TMC requirements for the Information Technology pathway. The department will seek funding for a lab of Macintosh computers for use in Apple training and support classes and programming classes. Existing macs in a lab will be made available for training and updating in A+ classes if new computers are purchased. In programming classes, students will continue to be exposed to the use of a Windows virtual machine on a Macintosh host computer using VMware Fusion. The department will investigate the creation of a lab of computers running Linux as the primary operating system. The department will investigate better ways to serve the needs of nontraditional students. The department will seek ways to acquire new computers for use in programming labs.

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 effective 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).

3. Describe accomplishments/best practices derived from the project (Narratives limited to 1000 characters).
The department continues to find it difficult to complete the work necessary to make MCIS 206, the Advanced Learning Classroom (ALC), fully functional. In the next year we hope to have all tables fully functional and begin scheduling more classes in this room. New larger tables were purchased for use in MCIS 206 (ALC). These tables make it possible for students to use textbooks and notebooks in addition to the tablet devices or notebook computers. New Google Pixel C tablets were ordered. These devices give students the ability to test code with a very high resolution screen. Computer Programming courses continue to be the most popular courses offered in the department. Students are using both the new AS-T (Associate Degree for Transfer) in Computer Science as well as the older AA degree in Computer Science. The Apple Macintosh computers in MCIS 204 were replaced with new systems. Since the base operating system for the Macintosh is Unix these systems will also be useful for students taking courses in the Linux operating system.

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="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7. Initiate, improve, expand and modernize quality CTE programs, including relevant technology. [§135(b)(7)]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8. Provide services and activities that are of sufficient size, scope and quality to be effective. [§135(b)(8)]	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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

Final Report of Expenditure by TOP Code: \$4,088

<input checked="" type="checkbox"/> Professional Dev. (including stipends)	<input checked="" type="checkbox"/> Instructional Materials Purchase/Replacement (including software)
<input checked="" type="checkbox"/> Instructional Equipment Purchase/Replacement	<input type="checkbox"/> Project Administration
<input type="checkbox"/> Facility rental/lease (off-campus location)	<input type="checkbox"/> Programs/Services for Special Populations
<input type="checkbox"/> Curriculum Development	<input type="checkbox"/> Consultants or Other Contracted Services