CTE Program Highlights

Computer Science

1. Code.org "Exploring Computer Science" course taught in CTE Digital Information Technology courses in 13 high schools. Thirteen teachers trained in Phase 1, teachers from 9 schools currently being trained in Phase 2.

2. Unity Game Programming application currently being offered at 3 high schools

3. MIT App Inventor training offered through FIU College of Engineering and 78 teachers (40 in 2014-15 and 38 in 2015-16) have been trained.

4. In collaboration with FIU, 18 CTE teachers were trained in Computer Science Principles and are eligible to teach AP Computer Science #020032001.

5. Seven schools offer AP Computer Science taught by CTE teachers: John A. Ferguson, Coral Gables, Ronald Reagan, Southwest, Miami Springs, Hialeah Gardens, and TERRA.

6. Through a Verizon/Project Lead the Way Grant, 13 middle schools are offering PLTW Computer Science curriculum through Business, IT and Technology Ed. courses. Twenty-three (23) teachers have been trained.

7. Twenty schools are fielding one or more teams in VEX VRC and VEX IQ competitions through CTE programs.

8. CTE students compete in district, state and national competitions that emphasize and focus on computational thinking and computer science.

9. M-DCPS CTE recently hosted a FLDOE meeting to review the state curriculum framework for JAVA Development & Programming to embed the Computer Science standards.

10. In collaboration with several districts, M-DCPS will be submitting a proposal for approval of a new program offering under CTE that would combine existing CTE programming courses with AP Computer Science Principles and AP Computer Science to provide students with a career pathway in programming.

11. A number of CTE courses already include computer science concepts and skills either as the focus of the program or are embedded within the curriculum framework such as in Cybersecurity and Applied Engineering Technology.

12. Many middle and high school participated in Hour of Code week and Cybersecurity Day, December 7-13, 2015 within CTE classrooms and field trips to MDC and FIU.

2016-2017 Professional Development Proposed to support Computer Science curriculum:

- MIT APP Inventor – 60 teachers
- AP Computer Science Principles teacher training – 20 teachers
- Wordpress (HTML 5) – 30 teachers
- Python – 6 teachers
- Pygame Python – 10 teachers