



Arlington  
Public  
Schools

Career & Technical Education

# ANNUAL REPORT

2015-2016





# PROGRAM PROFILE

The Career, Technical and Adult Education (CTAE) Office works to enhance, develop, and sustain high quality Career and Technical Education (CTE) programs for Arlington County students by providing technical and academic instruction for K-12 students.

During the 2015-16 school year, there were 9,899 course enrollments among students in grades 6 through 12 in the six CTE program areas, including Business & Information Technology, Computer Science, Family & Consumer Sciences, Marketing, Technology Education and Trade & Industrial Education. The programs provide students instruction in 13 out of 16 of the National Career Cluster areas. CTE's motto is Learning by Doing—Learning that Works for Arlington. Students are engaged in exploration and authentic problem-based and project-based learning experiences. CTE's state and local performance benchmarks continue to increase. Last year, CTE students earned 1,947 industry certifications, and the course competency attainment rate for CTE program completers was 90%.

**The major services provided by the CTAE office are:**

- Development and implementation of high-quality CTE programs.
- Career and college readiness opportunities for students.
- Opportunities for students to advance to postsecondary education and training.
- Assessment of program effectiveness through data collection and analysis.
- Sustained and continuous professional development for teachers.

**Bright Spots**

Each year the CTE office submits exemplary programs, advisory committees, and business partnerships to the Commonwealth's Creating Excellence Awards Program. This Program recognizes teacher and group activities that have resulted in exceptional classroom instruction and/or explicit results for students in CTE. This is the first year that all three of our groups were selected to represent the region in the competition.

- The Secondary Business Partnership Award was presented to Culpeper Gardens for their work-based learning experiences in partnership with the Arlington Career Center.
- The Television Production and Media Technology Program at the Arlington Career Center earned the regional Exemplary Secondary Program for the opportunities created for students to work with community clients on multimedia projects.
- The final regional award for the Secondary Advisory Committee was presented to the Arlington Career Center Parent, Business and Community Advisory Committee for their work in support of the Arlington Tech Vision.

This is a testament to the work done at the Career Center to connect with business and industry.

We have been working to increase student participation in Career and Technical student organizations. Participation continues to increase in the various program areas and more students are competing at the local, state and national level. This past year we had a 1<sup>st</sup> place winner in Medical Math at the National SkillsUSA Championships, Pablo Willson. We also had a 2<sup>nd</sup> place finish in Broadcast News. A team of four students worked together to write and produce a three-minute professional news broadcast. These students are Daniela Londono, Brian McTyre, Alex Pageotte, and Fernando Rocha.



### Data that provides insight

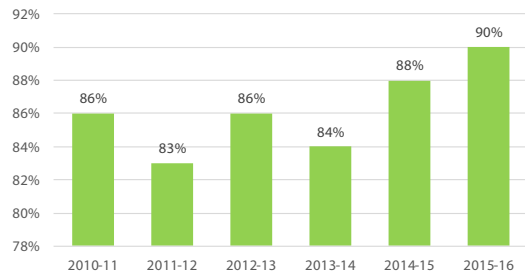
Enrollment over the past three years has increased allowing more students to participate in CTE classes. This also exposes students to workplace readiness skills, skills attainment in the specific course of studies, career exploration, and state approved credentialing.

Enrollment in CTE Classes

School Year	Enrollment	Sections
2013-14	8638	485
2014-15	9847	518
2015-16	9899	505

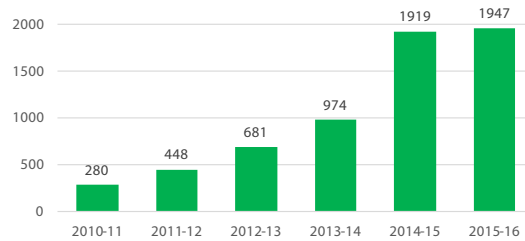
The competency attainment rate for our program completers has increased over the past two years. The competencies are the skills associated with a specific course curriculum as developed through state teams which include teachers, administrators, and industry professionals.

CTE Completer Competency Attainment Rate



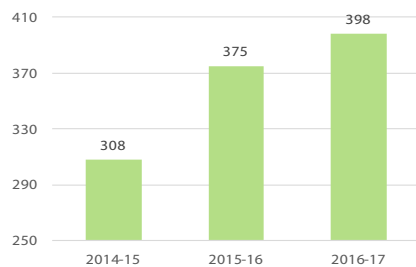
State approved credentialing has increased over the past six years. Credentials are industry certifications, Occupational Competency Tests, and State and National Licenses that help students validate their skill attainment.

State-Approved Credentials Achieved



Over the past three years, enrollment in the dual enrollment program has increased. Students gain college credit (2-6 credits per class) and a college transcript once they complete the dual enrollment course.

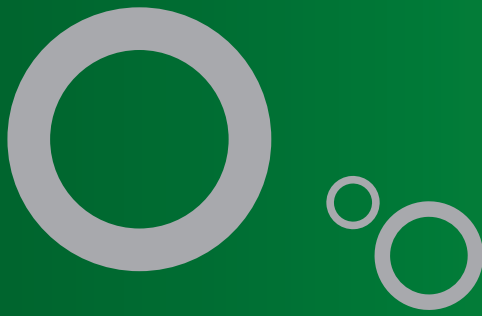
3-Year Dual Enrollment Statistics



Five other students participated and placed in the top 10 in their events. At the National DECA competition five students from Washington-Lee competed. These state and national opportunities place students in authentic business scenarios and the experience gained will last a lifetime.

Two STEM coordinators have been hired, one at the elementary level and one at the secondary level. Our new elementary STEM specialist is Marcella Park and our secondary STEM specialist is Pamela Nagurka. Both have been collaborating with colleagues on various projects. At the elementary level, Ms. Park has worked collaboratively with Title I and Gifted Services to develop and teach a unit on the water cycle for students during Barcroft's fall intersession. She is working with the Early Childhood Office with the Wolf Trap for the Arts' grant. Ms. Nagurka has worked with Wakefield math teachers to develop a cross-curriculum unit. The STEM website has been updated to include weekly challenges and a monthly calendar is distributed to all teachers as lesson starters. In addition, the website includes STEM opportunities and scholarships for high school students. These are just a few of the things in which our STEM specialists are involved.

This year is the first year that we are offering Computer Science at all middle schools. To prepare for the new course, our Business & Information Technology teachers and new hires are participating in a two-year state cohort of Computer Science professional development to provide a rigorous and exciting program. We have 357 students enrolled in Computer Science at all five middle schools and H-B Woodlawn. We have worked to provide schools with the necessary computer hardware and software as well as training to implement the program. Additionally, we included the AP Computer Science Principles Course at the high school level to increase Computer Science offerings which will accommodate the increased interest in Computer Science. Arlington Tech has implemented its Computer Science dual enrollment certificate program with Northern Virginia Community College.



### What We Learned

Work-based learning functions best when aligned with CTE curriculum and instruction. Students readily apply their knowledge and skills to make connections to careers. This increases the need for additional resources to support work-based learning experiences for students. Students are more engaged in the learning when the activities are purposeful and authentic. We also learned that the career and technical student leadership organizations have a significant role in developing students as leaders and providing the medium for community service learning.

Industry certifications are a value-added component of CTE in preparing students for high-wage and high-demand careers in information technology, engineering and health and medical fields. CTE's state and local performance benchmarks continue to increase. Last year, CTE students earned 1,947 industry certifications.

Dual enrollment facilitates the college transition processes for students. Students experience college life and college rigor while in high school. Arlington Tech students are benefitting from the new Cybersecurity and Computer Science dual enrollment pathways with Northern Virginia Community College. Students can earn up to 24 college credits.

We are continuing to work with business partners to expand ways for students and teachers to make greater connections with workforce development. Our current and future business partners are key in the research and development of emerging Career and Technical Education programs.

### Moving Forward

The CTAE Office Evaluation will be completed during January/February 2017. Data collected over the course of the evaluation process will be analyzed and used to develop recommendations for professional development, areas of improvement, and areas we have done well. We are also engaged in the creation of a five-year vision to keep our CTE programs on the cutting edge of instructional delivery, equipment, credentialing, and work-based learning opportunities. We will continue the trend of increasing competency attainment and the passing of credentialing tests. With Arlington Tech growing, we will increase project-based learning opportunities that can be transitioned into the comprehensive schools' CTE programs.

Career and Technical Education is a critical component of a well-rounded student experience. Everyone will have a career at some point and we provide the foundation for an experience that will spark a student's interest.



## GRADUATE SPOTLIGHT



**Cindya Umaña Amador, PT, DPT**

Licensed Physical Therapist, Fox Rehabilitation and Spring Arbor, Leesburg

- Wakefield High School, Arlington County Public Schools
- CTE studies: Physical/Occupational Therapy; Sports Medicine, Arlington Career Center
- Additional studies: Bachelor of Science in Health and Human Performance and Doctor of Physical Therapy, Marymount University

