

CTE Contacts

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FOUNDATION FOR APPLIED TECHNICAL EDUCATION, INC. (FATE)

The FATE partnership with FCPS began in 1971, with the focus of providing students real-world educational experiences. The FATE board is composed of representatives from a variety of business and industry associations interested in enhancing educational opportunities for students. For detailed information please visit www.fatefacts.org.

FATE Sponsored Programs

Residential Construction Program – Students build a single family home.

Student Auto Sales – Students work and assist with operating a Virginia licensed auto dealership.

Entrepreneurship “Market Days” – Students operate a small business from planning to product distribution.

School Store – Students run a school store in local high schools.

Program Improvement Grants – CTE programs may apply for an improvement grant up to \$10,000.

Scholarships – Yearly contributions exceeding \$19,000 from business and industry are awarded to students pursuing their passions at higher education institutions.

Business Partner and Teacher Celebration Dinner – Business partners and teachers are recognized for their contributions on behalf of students.



ADVISORY COMMITTEES

Over 75 business and industry volunteers serve on either the Career and Technical Education Advisory Committee (CTEAC) or one of the six program-specific advisory committees. Their contributions of professional perspective, time, and support for CTE programs are greatly appreciated. Some examples of program-specific advisory committee activities include curriculum review, assisting as judges for career and technical student organization competitions, contributing to and awarding student scholarships, and selecting and processing teacher recognitions and awards.

No student in Fairfax County Public Schools shall on the basis of race, color, sex (including sexual harassment, Title IX, and pregnancy), marital status, religion, national origin, age, disability, or genetic information be excluded from or denied enrollment in any academic activity or course. The director of the Office of Equity and Compliance has been designated to handle inquiries and complaints regarding nondiscrimination policies to include those covered under Title IX and can be reached at 571-423-3050. For concerns regarding compliance under Section 504 of the Rehabilitation Act of 1973, please contact the coordinator of Due Process and Eligibility at 703-317-3030. Visit <http://www.fcps.edu/ada.shtml> for more information.

Career and Technical Education

2015-2016 Highlights



Over
18,500
Total Industry
Credentials
Earned

CTE Total
Enrollment
Over 60,000*
*Includes EPF

Review

YEAR IN



LOOKING TO THE FUTURE AND INDUSTRY CREDENTIALS

To be successful in the 21st century, students must be able to adapt to a world where workplace skills change at an incredibly rapid rate. To keep pace, course offerings, equipment, and community partnerships must also continually change.

Industry Credentials

Many CTE courses prepare students for industry credentialing opportunities. Students who desire this professional credential must pass an industry-developed, industry-evaluated exam during the CTE course. Earning an industry credential demonstrates the professional skill level the student has achieved and provides industry-recognized proof that the student is prepared for career-related responsibilities or postsecondary education or training. The Virginia Board of Education has approved many exams for the purpose of awarding verified credit, specifically designated as “Student-Selected Verified Credit.” During the 2015-2016 school year, over 18,500 certifications and licenses in 42 categories were earned by CTE students in Fairfax County Public Schools.



Students that entered 9th grade in fall 2013 and are earning a standard diploma must also earn an industry credential to graduate.

New Trends in CTE

CTE continues to examine trends in workforce development to offer courses that support industry needs. New curriculum is being designed in the areas of biotechnology, cyber security infusion, early childhood care, fire science, and STEAM.

During the 2015-2016 school year students at Whitman Middle School and Mount Vernon High School participated in the inaugural Project Lead the Way (PLTW) program. Through activity/project/problem-based learning, students apply what they know, identify problems, find unique solutions, and lead their own learning. Students on the PLTW pathway experience an engaging environment and develop in-demand knowledge and skills necessary to thrive in an evolving world. PLTW is the nation’s largest provider of STEM curriculum. The four-year program will introduce a new course over the next three years until full implementation is obtained.

97.16% of CTE
HS Students Graduated

100% of CTE postsecondary students met performance goals for technical skills

DUAL ENROLLMENTS AND ARTICULATION AGREEMENTS

FCPS has dual enrollment agreements with Shenandoah University and the Teachers for Tomorrow program, as well as with Northern Virginia Community College (NVCC) and the Automotive Collision Service, Automotive Technology, Cisco, Culinary Arts, Engineering, Entrepreneurship, HVACR, Exploring the Language of Medicine, Network Administration, Physical Therapy/Occupational Therapy, and Oracle programs at various high schools and academies whereby students can earn college credits while in high school. In addition, FCPS currently has articulation agreements with George Mason University, James Madison University, Johnson & Wales University, Sheet Metal Workers International Association, Stratford University, and The Culinary Institute of America. These agreements allow students to take certain CTE classes in high school and, upon meeting specific requirements, receive college placement credit at postsecondary institutions.

CAREER EXPERIENCES

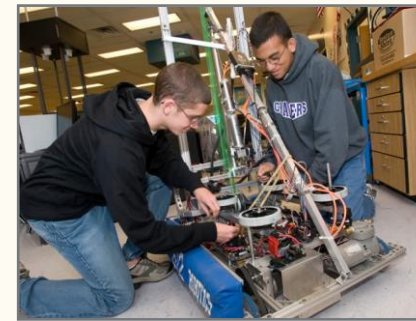
The number and quality of career experience opportunities for students throughout FCPS expanded during the 2015-2016 school year. Continued support by organizations and businesses such as Capital Caring, Exxon Mobil, Mt. Vernon Ladies' Association, Micron Technology, MITRE Corporation, Navy Federal Credit Union, Northrop Grumman, SRC, Tysons Regional Chamber of Commerce, Virginia Tire and Auto, Walter Media, and other organizations too numerous to list, contributed to career experience opportunities reaching nearly 3,000 students through internships, job shadowing, and mentoring. The following events illustrate the collaboration that exists between the Northern Virginia business community and FCPS to develop these career experiences:

- Northrop Grumman was recognized for more than 25 years of support to Chantilly Academy and Chantilly High School for providing professionals who volunteer their time to work with students, and via donations and grants totaling more than \$50,000 since 2009. Northrop Grumman professionals have served as mentors to numerous student groups, including Girls Exploring Engineering, FIRST Robotics, and CyberPatriot. Within this partnership, countless students have directly been impacted by this support, both through the financial aspect of increased technology resources and equipment in the classrooms. Additionally, some of the students were offered internships at the company and are now employed by Northrop Grumman.
- Fairfax County Public Schools and NOVA SySTEMic Solutions hosted a STEM-H Expo for those interested in exploring careers and education related to science, technology, engineering, mathematics, and health sciences. Over 300 students, parents, and community members were in attendance. Highlights of the event included *STEMstatic* kick-off, breakout sessions, student demonstrations, and exhibitors from STEM-H related business, industry, and educational organizations.

98.94% met performance goals for reading/language arts skills

GLOBAL STEM CHALLENGES PROGRAM (EDISON HIGH SCHOOL)

The Global STEM Challenges Program is a STEM focused, interdisciplinary three-year program focusing on authentic global problems based at Edison High School. The program was designed as part of the Governor's High School Innovation Grant. Teachers and students were selected for the program during the 2015-16 school year. This dynamic and integrated program will exemplify the model for preparing high school students to succeed in both college and careers with the primary goals of 1) providing student-centered learning based on demonstrated understanding; 2) aligning real-world connections to community workforce needs and college and career preparation; and 3) utilizing varying roles for educators to allow for best practice instruction. Students enrolled in the Global STEM Challenges Program will take their mathematics, science and engineering courses integrated into one interdisciplinary class. The program will consist of three periods of the student's schedule, every other school day. The Global STEM Challenges Program is a three year program and will integrate content from all three years of the traditional mathematics, science, and engineering curriculum into the integrated course sequence. In addition, students who complete the three year program will receive a tenth academic credit in Computer Science which will be embedded throughout the program. The program will begin in the fall of 2016 with a cohort of ninety freshman students.



GOVERNOR'S STEM ACADEMIES

Governor's STEM Academies are designed to expand options for students to acquire literacy in science, technology, engineering, and mathematics (STEM) while earning industry credentials required for high-demand, high-wage, and high-skill careers. Each academy represents a partnership among school divisions, postsecondary institutions, and business and industry. In addition, Chantilly and Marshall, the Governor's STEM Academies within FCPS, include plans for collaboration with chambers of commerce, local business leaders, and federal partners to advance STEM and CTE programs.

GOVERNOR'S HEALTH SCIENCES ACADEMIES

The Governor's Health Sciences Academies provide expanded options for students in health sciences literacy and other critical knowledge, skills, and credentials that will prepare them for high-demand, high-wage, and high-skill health sciences careers. Several courses offered will provide the opportunity for students to earn industry certifications and dual enrollment college credits. The Falls Church and West Potomac Governor's Health Sciences Academies work with business and community partners including health care institutions, higher education institutions, local government, and economic development entities to provide rich workforce development experiences for students and build a skilled network of future health care professionals.

ENRICHMENT CAMPS FOR STUDENTS

There are several summer enrichment opportunities available through CTE. For more information visit <http://www.fcps.edu/is/cte/events.shtml>

CyberSecurity Camp: Students go in-depth in the field of cybersecurity and learn from leading cyber experts and FCPS teachers. Topics include cyber ethics, computer forensics, cybersecurity fundamentals, and valuable information on cybersecurity internships and careers in the field

STEM Camp: This camp focuses on Science, Technology, Engineering, and Mathematics, giving students the opportunity to experience new technologies with activities such as: Robotics, Aerospace, Computer Assisted Design (CAD), 3D Printing, Energy and Green Technologies.



Tech Adventure Camp: Students explore careers and technology in a variety of areas such as Automotive Technology, 3D Design, Culinary Arts, and Robotics..



99.12% met performance goals for math skills

PARTNERSHIPS

Thanks to the support of dedicated individuals, community organizations, local businesses, and national corporations, FCPS Career and Technical Education continues to offer programs that are up-to-date with industry standards and practices. During the past year, over 300 businesses and organizations volunteered their services in support of CTE programs and students. Partnerships that continue to offer support for CTE include:

- Apple Federal Credit Union
- Cisco
- Claude Moore Foundation
- Fairfax County Fire and Rescue Department
- Fairfax County Police Department
- Fair Oaks Mall
- George Mason University
- Grainger Inc.
- Inova Health Systems
- Marymount University
- MITRE
- National Geospatial-Intelligence Agency
- Navy Federal Credit Union
- Northrop Grumman
- Oracle
- Real Food for Kids
- Rotary International
- Reston Hospital
- Virginia Tire and Auto
- Volkswagen Group of America
- Walgreens Pharmacy
- Washington Area New Automobile Dealers Association

