

# YEAR IN REVIEW

## A REPORT OF FAIRFAX COUNTY PUBLIC SCHOOLS CAREER AND TECHNICAL EDUCATION, 2007-2008



## ACCOMPLISHMENTS

The Career and Technical Education (CTE) program continues to make significant contributions to Fairfax County Public Schools (FCPS). Accomplishments from 2007-2008 are highlighted below.

### INDUSTRY CREDENTIALS

Many CTE courses prepare students for industry credential opportunities. Students who desire this professional credential must pass an industry-developed, industry-evaluated exam at the end of 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 2007-2008 school year, 2877 certifications and licenses in 33 categories were earned by CTE students in FCPS.

### ARTICULATION AGREEMENTS & DUAL ENROLLMENTS

FCPS currently has 28 articulation agreements with Northern Virginia Community College (NVCC), George Mason University, Johnson & Wales University, Stratford University, the Art Institutes of Miami, Philadelphia, and Washington, and the Culinary Institute of America. These agreements allow students to take certain CTE classes in high school and, upon meeting specific requirements, receive advanced placement credit at postsecondary institutions. In addition, FCPS has a dual enrollment agreement with NVCC and the Automotive Technology program at Annandale High School whereby students can earn up to eight college credits. The number of courses offering dual enrollment will expand in 2008-2009.

### PARTNERSHIPS

Thanks to the support of dedicated individuals, community organizations, local businesses, and national corporations, the Office of 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. Newly developed partnerships include:

- ▶ Goodwin House, assisting the practical nursing programs
- ▶ George Mason University, Volgenau School of Information Technology and Engineering, assisting engineering and business information technology programs
- ▶ Belle Haven Country Club, assisting culinary, hospitality, and landscape architecture and turf management programs

### ADVISORY COMMITTEES

Over 75 business and industry volunteers serve in an advisory capacity 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. CTEAC's on-going projects from the year include:

- ▶ FCPS CTE Calendar: First created for the 2004-05 school year, the calendar conveys the diversity, excitement, and opportunity of a CTE educational experience through a series of profiles of current and previous CTE students. The 2008 CTE calendar was distributed to FCPS school staff and stakeholder groups within the community.
- ▶ CTE promotional video: Designed to appeal to high school students, the video presents numerous options, experiences, and credentialing opportunities available to students through FCPS CTE courses. The video was distributed to teachers and school counselors and is available to view on the FCPS CTE public web site. A second video targeted to educate parents about CTE courses will be developed in SY08-09.
- ▶ Career Search and Investigation: A new middle school course was developed which will allow students to explore the 16 career clusters, learn about career decision making, and enhance skills needed for career success. This new course will be offered at six middle schools during the 2008-09 school year.
- ▶ Camp CTE: Designed to welcome school counselor representatives from each middle and high school as "campers" who explore the FCPS academies and other CTE courses. The first counselor camp was offered in Fall 2007 and due to its great success, an expansion of the camp is anticipated for Fall 2008.

## CTE EXHIBITS EXEMPLARY STANDARDS

The CTE Exemplary Standards Review in FCPS and other Virginia school districts has been very successful. As a result, the Virginia Department of Education has adopted the self-assessment process as a special program to be partially supported through a federal grant. The review is designed to allow CTE teachers to assess the current program, share the program with a visiting review team, and develop a program improvement plan. It also provides the means for teachers to collaborate on instruction and establish consistency in curriculum and instructional approaches.

Programs that participated in the CTE Exemplary Standards Review focused on program quality, educational significance, and evidence of effectiveness and success during the self-study which resulted in high achieving programs serving FCPS students. Between 2004 and 2008, a total of 78 CTE programs completed the review process.

In the true spirit of implementing the best practice of continuous improvement, FCPS made adjustments to improve the review model during the 2006-2007 school year. The revised Exemplary Review Program was successfully completed by 12 CTE programs at three high schools in 2007-2008.

## TECHNOLOGY INITIATIVES

In order to offer a relevant instructional program, critical equipment and software initiatives and upgrades were implemented across multiple programs. These initiatives included:

- ▶ Upgraded computer memory in business labs.
- ▶ Installed “mock pharmacy” at West Potomac Academy.
- ▶ Upgraded software and other resources for the Introduction to Interior and Fashion Design course which included laptop carts, SMART Boards™, and LCD projectors.
- ▶ Updated technology education lab to a “Synergy” platform at Luther Jackson Middle School
- ▶ Fully implemented “Today’s Class,” an online National Automotive Technicians Education Foundation (NATEF) training program which assists students to prepare for NATEF certifications, in Automotive Technology and Automotive Collision classes.

## OUTSTANDING PROGRAM ACHIEVEMENT

- ▶ Marshall High School Engineering Systems program is constructing a satellite module scheduled for Space Shuttle deployment in 2009.
- ▶ Falls Church High School marketing program worked with the Annandale Chamber of Commerce and local businesses on a project to create and market *Jaguar Joe*, a special blend of coffee developed by FCHS students.
- ▶ Chantilly Academy “Girls Exploring Engineering—GE<sup>2</sup>” program received a \$10,000 grant from the ExxonMobil Foundation.
- ▶ Fairfax Academy received a \$30,000 grant from the Apple Federal Credit Union.
- ▶ Fairfax County School of Practical Nursing reports 10 students received their practical nursing license from the Virginia Board of Nursing.

## TECH PREP

The Northern Virginia Tech Prep Consortium is a unique partnership between FCPS, Northern Virginia Community College (NVCC), and eight surrounding school divisions which provides funding for career and technical education programs that lead to continued education and lifelong learning opportunities. Consortium funds were used to:

- ▶ Sponsor a career coach who worked with both the Edison and the Falls Church Academies. This person was responsible for individual career counseling, assisting with registration and placement testing for NVCC, and teaching the SDV 100 course. The SDV 100 course is needed to generate an NVCC transcript so that students can receive their articulated credits upon graduation from high school.
- ▶ Award over \$4,400 in grant money for software, equipment, and professional development for CTE teachers, including software for the animal science program that allows students to virtually explore animal anatomy.
- ▶ Provide funding for camp supplies for “Tech Adventure Camp” which offers middle school students the chance to explore career and technical courses available in high school. Purchases included software to create virtual simulations and forensic supplies used to identify DNA and analyze fingerprints.

## CAREER EXPERIENCES

The number and quality of career experience opportunities for students throughout FCPS expanded during the 2007-2008 school year. Continued support by organizations and businesses such as CVS Pharmacy, Apple Federal Credit Union, Dunn Loring Rotary Club, MITRE, Herndon/Dulles/Reston Chamber of Commerce, Fairfax County Division of Vehicle Services, Information Technology Departments within the Federal Government, Northern Virginia Technology Council (NVTC), Navy Federal Credit Union, MC Dean, and other organizations too numerous to list, contributed to career experience opportunities reaching over 3,500 students through internships, job shadowing, and mentoring. The following events illustrate the level of collaboration that exists between the Northern Virginia business community and FCPS to develop these career experiences:

- ▶ Over 1,300 students took part in exercises on managing a personal budget offered by the Navy Federal Credit Union and Apple Federal Credit Union.
- ▶ 133 juniors and seniors participated in the *National Groundhog Job Shadow Day 2008*, thanks to the generosity of 36 local companies.
- ▶ 120 students attended a health expo sponsored by NVCC with the help of local businesses and industries.
- ▶ 90 students from seven high schools and academies participated in Criminal Justice Field Day hosted by the Fairfax County Criminal Justice Academy.
- ▶ Over 250 FCPS employees participated in *Educators’ Day in the Workplace* which allowed teachers to visit local companies such as Accenture, Northrop Grumman, Reston Hospital Center, Noblis, and the Woodrow Wilson Bridge Project.

## FOUNDATION FOR APPLIED TECHNICAL EDUCATION, INC. (FATE)

FATE has been in partnership with FCPS for 37 years, providing students real world educational experiences. Membership on the FATE board is composed of representatives from a variety of professional associations interested in enhancing educational opportunities. Project highlights include:

- ▶ **Residential Construction Program:** Provides students with real world experiences in the residential construction industry. FATE has overseen the building of 17 houses by students across the county over three decades. The current residential construction site is at the Spring Village Estates, located in the southeastern section of the county. During the 2007-2008 school year, the Fairfax County Board of Supervisors provided \$170,000 to FATE for modification of the subdivision plan for the homes to accommodate Universal Design elements. This provides opportunities for students enrolled in construction-related classes to see firsthand emerging concepts in residential design and implementation.
- ▶ **Student Auto Sales:** Combines dealership/salesmanship experience with classroom instruction in automotive collision service and automotive technology. The project refurbished donated autos and sold them for a total of \$158,071 which provided students additional educational opportunities. The Student Auto Sales (SAS) program is currently available to all thirteen high schools offering automotive technology and collision programs. The SAS program is partnered with the Virginia Independent Automotive Dealers Association (VIADA) to provide interested students with state-of-the-art learning experiences.
- ▶ **Springfield Classroom-on-the-Mall:** Provides students with experience in marketing, fashion marketing, and student enterprises. Santa's Little Helpers retail store provides students with exposure in managing and operating their own business during the winter holiday season.

## TECH ADVENTURE CAMP

This two-week exploratory camp, held at Chantilly and Edison High School Academies, provided students an opportunity to explore and develop their artistic expression, technology transfer, and life matrix skills in a fun and challenging environment. Tech Adventure Camp 2008 welcomed 310 rising 6<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup> graders who combined their creativity with technology and applied life skills to design, assemble, and program their own robotic creations; explore the world of science and technology related to criminal investigation; combine photography and artistry through multi-media applications; create and design a virtual world; learn food preparation skills to create and enjoy healthy foods; and build a simulation of a virtual life.

## SCHOLARSHIPS

Scholarships totaling over \$3,218,641 were awarded to Career and Technical Education graduating seniors.

## STUDENT ORGANIZATIONS

FCPS has several national cocurricular student organizations that are supported by the Virginia Department of Education: **DECA**—an Association of Marketing Students; the Future Business Leaders of America (**FBLA**); Family, Career, and Community Leaders of America (**FCCLA**); Health Occupations Students of America (**HOSA**); **SkillsUSA**; and Technology Student Association (**TSA**). These organizations provide students with leadership activities as a part of the instructional program. While preparing young people for success as leaders in business, government, and the community, these dynamic organizations continue to bring business and education together in positive working relationships and continue to provide opportunities for students to excel through nationally recognized competitive events, resulting in bringing both state and national recognition to FCPS students.

**State and National Recognition** included:

- ▶ 13 state officers
- ▶ 4 national officers
- ▶ 296 state individual and chapter awards
- ▶ 106 national individual and chapter awards
- ▶ DECA had national winners at Chantilly, Fairfax, Madison, Marshall, McLean, Oakton and Woodson High Schools, and Lake Braddock, Robinson, and South County Secondary Schools
- ▶ FBLA had national winners at Lee, Marshall, and Mount Vernon High Schools, and Robinson Secondary School
- ▶ SkillsUSA had a national winner at Fairfax High School
- ▶ Robinson Secondary School DECA Chapter, recognized at the International Career Development Conference as the 4th largest chapter in the world

## OUTSTANDING STUDENT ACHIEVEMENT

In addition to the success of students through cocurricular organizations, other CTE students received special recognitions for outstanding achievements. These include:

- ▶ West Potomac Academy Television Production student received the New Student Filmmaker Award at the Cinema Cities International Film Festival in California
- ▶ Mount Vernon High School students won first place in the High School Scrapbook competition at the Future Educators Association (FEA) Conference
- ▶ Hayfield Secondary School student received the highest score in the nation on the National Institute for *Automotive Service Excellence (ASE)* exam at the New York International Auto Show Automotive Competition
- ▶ Students from Lee, Chantilly, and South Lakes High Schools placed in the top 1% of over 46,000 participants in the U.S. Department of the Treasury's inaugural National Financial Literacy Challenge
- ▶ Frost Middle School student won second place in the National Pitsco Essay Contest

## TEACHER RECOGNITION & LEADERSHIP

Many of the outstanding CTE teachers and staff are regularly involved in leadership activities with professional associations, participate in curriculum development at the local and state levels, take on leadership roles within their schools, and have been recognized by local, state and national organizations.

- ▶ 35 teachers/staff received local awards & recognitions
- ▶ 14 teachers/staff received state awards & recognitions
- ▶ 12 teachers received national awards & recognitions
- ▶ 37 teachers were local level officers/leaders
- ▶ 18 teachers/staff were state level officers/leaders
- ▶ 7 teachers were national level officers/leaders
- ▶ 13 teachers are now National Board Certified
- ▶ 65 teachers participated in curriculum development
- ▶ 136 teachers earned 245 industry certifications

## A LOOK TO THE FUTURE

The CTE program provides specialized training in emerging technologies and career exposure to tens of thousands of students each year. These courses offer students opportunities that enrich and bring life to their academic endeavors while providing them a “skill set” that helps to ensure success in their chosen careers. 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. A look to the future shows these evolutionary changes and the inclusion of many challenging new programs:

**NEW COURSES OFFERED IN 2008-2009:** Advanced Programming; Teacher Cadet 2; Entrepreneurship 2; Independent Research-Engineering; Landscape Architecture and Turf Management 2; Career Search and Investigation; Digital Input Technologies

## SPECIFIC INITIATIVES FOR 2008-2009

- ▶ Increase the total of student earned credentials to move towards the aspirational goal of 33%
- ▶ Collaborate with the Office of High School Instruction to begin development of the States’ Career Clusters model for FCPS
- ▶ Expand Dental Careers, Fire/Emergency Medical Sciences, and Career Search and Investigation courses to new school sites
- ▶ Pilot satellite practical nursing program via Reston Hospital cohort group
- ▶ Continue development of children’s engineering program at Bailey’s Elementary School
- ▶ Pilot Digital Visualization program at Woodson High School
- ▶ Continue to expand the newly revised Exemplary Program Review to select schools
- ▶ Understand, interpret, and maximize the opportunities available in the new Carl Perkins Act to improve the quality of CTE labs and programs

## STAFF DEVELOPMENT

Evolving technologies and continuously changing workforce dynamics heightens the importance of staff development and training. During the past year:

- ▶ Over 261 CTE teachers attended various training workshops, courses, and professional conferences to update and enhance their knowledge and skills for specific, industry-related courses.
- ▶ CTE staff participated in Association for Career and Technical Education (ACTE) conferences; district, state, and national student organization conferences; and, state conferences sponsored by professional organizations and the Virginia Department of Education.
- ▶ Five CTE coordinators held state officer positions in various CTE-related professional and student organizations.

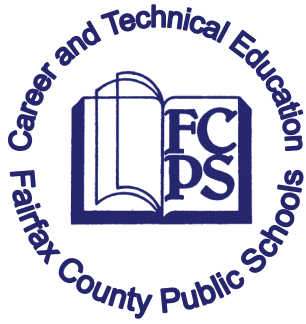
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## CAREER AND TECHNICAL EDUCATION ENROLLMENTS<sup>♦</sup> BY PROGRAM AREA, 2007-2008

	Middle School	High School	Academy	Alternative High School	Total by Program Area
Business & Information Technology	6,641*	9,182#	455	60	16,338
Family & Consumer Sciences	9,194*	5,674	288	21	15,177
Health & Medical Sciences	n/a	152	593	0	745
Marketing	n/a	6,129	207	36	6,372
Technology Education	8,441*	4,184	206	0	12,831
Trade & Industrial Education	n/a	1,540	1,216	5	2,761
<b>Total CTE Enrollments</b>	<b>24,276</b>	<b>26,861</b>	<b>2,965</b>	<b>122</b>	<b>54,224</b>
<b>Total FCPS Membership Count</b>	26,045	51,637	n/a	689	78,371
<b>Percent of CTE Enrollments to FCPS Membership Count</b>	93.2%	51.8%	n/a	17.7%	69.1%
<b>Comparative Totals</b>					
2006-2007	24,967*	26,659	2,910	109	<b>54,645</b>
2005-2006	26,137*	26,813	2,808	139	<b>55,870</b>
2004-2005	27,903*	27,263	2,768	160	<b>58,094</b>
2003-2004	27,441*	25,952	2,536	144	<b>56,073</b>
2002-2003	25,956	27,358	2,327	243	<b>55,884</b>
2001-2002	26,818	26,088	2,098	260	<b>55,264</b>

♦ Enrollment figures include duplicated student counts. (Students completing more than one CTE course are counted in each course's enrollment.)

\* Totals do not include the Middle School Wheel (9860, 9870, 9880), a collection of nine- or twelve-week courses taught, in part, by CTE teachers.

# Includes students enrolled in online CTE courses.

### HIGH SCHOOL ACADEMIES ENROLLMENT

High School Academy & Specialized Areas	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008
<b>Chantilly High School Academy</b> Engineering & Scientific Technology and Health & Human Services	958	1,059	1,064	1,003	1,143
<b>Edison High School Academy</b> International Studies & Business and Engineering & Scientific Technology	543	576	543	571	540
<b>Fairfax High School Academy</b> Communications & the Arts	422	441	354	353	447
<b>Falls Church High School Academy</b> Health & Human Services	n/a	n/a	n/a	183	193
<b>Marshall High School Academy</b> International Studies & Business and Engineering & Scientific Technology	603	834	913	773	833
<b>West Potomac High School Academy</b> Communications & the Arts and Health & Human Services	380	409	422	450	436

Academy totals include non-CTE students; therefore, when summed, exceed totals listed in the upper chart.

# YEAR IN REVIEW

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**FAIRFAX COUNTY  
PUBLIC SCHOOLS  
CAREER AND TECHNICAL  
EDUCATION  
COURSE OFFERINGS  
2007-2008**

Annandale	Bryant	Centreville	Chantilly	Edison	Fairfax	Falls Church	Hayfield	Herridon	Lake Braddock	Langley	Lee	Madison	Marshall	McLean	Mount Vernon	Mountain View	Oakton	Pimmit	Robinson	South County	South Lakes	Stuart	TJHSST	West Potomac	West Springfield	Westfield	Woodson	Online
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**Business and Information Technology**

A+				A	A																							
Accounting	x		x	x	x		x	x	x	x	x	x			x	x		x	x	x	x			x	x	x		
Advanced Accounting	x								x		x	x			x	x							x		x			O
Advanced Information Systems	x	x	x		x		x	x	x	x	x	x			x	x		x	x		x	x				x	x	
Business Law	x			x	x		x		x	x	x	x					x		x	x	x	x		x	x	x	x	
Business Management	x			x	x		x		x	x	x	x					x		x	x	x	x		x	x	x	x	
Business Mgmt -- Virtual Enterprise			x			x	x		x						x				x									
Cisco I				A																								
Cisco II				A																								
Cooperative Office Education	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x		x	x	x	x		x	x	x	x	
Design, Multimedia and Web Technologies	x		x	x	x		x	x	x	x	x	x			x							x	x			x	x	x
Finance			x	x	x	x		x		x	x		x		x		x		x	x		x		x	x	x		
IB Business & Management 1											x		A		x				x			x						
IB Business & Management 2													A		x				x			x						
Information Systems	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	
Information Technology Fundamentals					x			x							x							x	x		x		x	
Network Administration 1				A	A								A															
Network Administration 2				A	A								A															
Office Administration	x	x		x	x			x			x				x			x										
Oracle I					A																							
Oracle II					A																							
Principles of Business	x		x	x		x		x			x			x	x				x					x	x	x	x	
Programming	x		x	x	x	x	x		x	x		x	x	x		x		x	x	x	x				x	x		
Web Page Development			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	

**Family and Consumer Sciences**

Child Development & Parenting	x	x				x		x	x			x			x				x	x				x	x			
Culinary 1	x			A	A		x						A															
Culinary 2	x			A	A		x						A															
Early Childhood Careers 1				A				x			x			x	x				x					A	x			
Early Childhood Careers 2				A				x			x			x	x				x					A	x			
Fashion Design 1						A																		A				
Fashion Design 2						A																		A				
Fitness and Food	x					x		x			x				x		x		x					x	x			
Gourmet Foods	x	x		x		x	x	x	x		x	x		x	x		x		x					x	x		x	
International Foods & Hospitality	x	x		x		x	x	x	x		x	x		x	x		x		x						x		x	
Intro. to Fashion and Interior Design	x					x		x		x					x		x		x						x		x	
Life Planning	x	x				x		x			x	x		x	x		x			x				x				
Relationships								x																				
Teacher Cadet			x					x							x				x						x			
Work Experience								x																				

**Health and Medical Sciences**

Advanced Health Sciences				A			A																		A			
Animal Science 1				A	A																							
Animal Science 2				A	A																							
Dental Careers 1				A																					A			
Dental Careers 2				A																					A			
Exploring Health Sciences				A			A	x							x							x		A				
Exploring the Language of Medicine				A			A	x							x										A			
Fire/Emergency Medical Sciences 1 & 2							A																					
Pharmacy Technician				A																					A			
Physical/Occupational Therapy 1																									A			
Physical/Occupational Therapy 2																									A			
Practical Nursing 1 & 2							A																					

A--Denotes academy course, transportation may be provided.

**CAREER AND TECHNICAL EDUCATION IN THE MIDDLE SCHOOL PROGRAM**

<b>Business and Information Technology</b>		<b>Technology Education</b>	
Technology Tools	Offered for Grades 7 and 8	Introduction to Technology	Offered for Grade 6
Advanced Technology Tools	Offered for Grades 7 and 8	Inventions and Innovations	Offered for Grade 7
<b>Family and Consumer Sciences</b>		Technological Systems	Offered for Grade 8
Family and Consumer Sciences	Offered for Grades 6, 7, and 8		

**FAIRFAX COUNTY  
PUBLIC SCHOOLS  
CAREER AND TECHNICAL  
EDUCATION  
COURSE OFFERINGS  
2007-2008**

Annandale	Bryant	Centreville	Chantilly	Edison	Fairfax	Falls Church	Hayfield	Herrndon	Lake Braddock	Langley	Lee	Madison	Marshall	McLean	Mount Vernon	Mountain View	Oakton	Pimmit	Robinson	South County	South Lakes	Stuart	TJHSST	West Potomac	West Springfield	Westfield	Woodson	Online
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**Marketing**

Advanced Marketing	x		x	x	x		x	x	x	x		x	x	x	x		x		x	x	x				x	x	x	
Adv. Sports & Entertainment Marketing	x		x	x	x	x		x	x		x	x	x	x	x		x		x	x	x				x	x	x	
Education For Employment (EFE)	x	x			x				x						x	x		x				x	x					
Entrepreneurship													A															
Fashion Marketing 1	x		x	x	x	x	x	x	x	x	x	x	x	x	x		x		x	x		x			x	x	x	
Fashion Marketing 2	x		x	x	x	x	x	x	x	x	x	x	x		x		x		x	x		x			x	x	x	
Hospitality Management 1				A	A								A															
Hospitality Management 2				A	A								A															
International Trade & Marketing	x						x		x					x					x	x					x	x	x	
Introduction to Marketing	x		x		x	x			x	x		x	x	x					x	x	x				x	x		
Marketing 1	x		x	x	x	x	x	x	x	x	x	x	x	x	x		x		x	x	x				x	x	x	x
Mktg Cooperative Work Exp (Coop)	x	x		x	x	x	x		x	x	x	x	x	x	x	x		x	x	x	x	x			x	x	x	x
Media Marketing 1																												
Sports & Entertainment Marketing	x		x	x	x	x	x	x	x	x	x	x	x	x	x		x		x	x	x				x	x	x	x

Classroom on the Mall Marketing 1, Advanced Marketing, Fashion Marketing 1, and Fashion Marketing 2 are offered at three non-school sites: Springfield Mall, Fair Oaks Mall, and Tyson's Corner Center.

**Technology Education**

Advanced Drawing				x	x	x		x		x	x	x							x						x	x	x	x	x
Architectural Drawing	x			x	x	x	x	x		x	x		x				x		x	x					x	x	x	x	x
Basic Technical Drawing	x			x	x	x	x	x		x	x	x	x	x			x		x	x				x	x	x	x	x	
Design and Technology	x			x	x			x		x	x		x	x					x	x					x	x	x	x	
Electronics 1	x			x			x						x	x					x						x	x	x		
Electronics 2	x													x											x		x		
Electronics 3	x																								x		x		
Engineering Drawing				x			x	x		x			x	x					x	x					x	x	x	x	
Engineering Physics 1													A												x				
Engineering Physics 2				A									A																
Engineering Systems 1				A									A												x				
Engineering Systems 2				A									A																
Pre-Engineering	x			x	x	x	x	x		x	x	x		x					x	x					x		x	x	
Research & Development Engineering					x						x								x						x	x	x		
Technology Assessment																											x		
Technology Transfer																											x		

**Trade and Industrial Education**

Aerospace Science 1																												x	O
Aerospace Science 2																												x	
Auto Collision 1				A	A								A																
Auto Collision 2				A	A								A																
Auto Technology 1	x		x	A	A	x	x	x		x			A						x								x		
Auto Technology 2, 3	x		x	A	A	x	x	x		x			A						x								x		
Construction Technologies 1				A	A																								
Construction Technologies 2				A	A																								
Cosmetology 1				A	A			x					A																
Cosmetology 2, 3				A	A			x					A																
Criminal Justice 1				x	A			A					A							x						A		x	
Criminal Justice 2				x	A			A					A							x						A			
Electrical Construction/Engineering 1					A																								
Electrical Construction/Engineering 2					A																								
Graphic Imaging and Design 1						A																					A		
Graphic Imaging and Design 2						A																					A		
Heating and Air Conditioning 1					A																								
Heating and Air Conditioning 2					A																								
Landscape Architecture & Turf Mgmt					A																								
Professional Photography Studio 1						A																							
Professional Photography Studio 2						A																							
Television Production 1						A																						A	
Television Production 2						A																						A	

Spring Village Residential Construction Site Construction Technologies 1 and Construction Technologies 2 are offered at a non-school site: Spring Village in Springfield, Virginia

**COOPERATIVE EDUCATION DATA**

1,281 CTE students participated in cooperative education and earned a total of \$5,797,948.

## STUDENT EARNED INDUSTRY CREDENTIALS

Below are listed the courses offered during the 2007-2008 school year in which students could prepare for industry credential opportunities. Students who desired this professional credential were required to pass an industry-developed, industry-evaluated exam at the end of the CTE course. Earning an industry credential demonstrates the professional skill level the student achieved and provides industry-recognized proof that the student is prepared for career-related responsibilities or post-secondary education or training. The Virginia Board of Education approved many exams for the purpose of awarding verified credit, specifically "Student-Selected Verified Credit." In addition to the below, 2501 students in four program areas passed the Occupational Health and Safety Administration (OSHA) Career Safe test.

<b>Industry Credential Available During 2007-2008 School Year</b>			
<b>CTE Program Area</b>	<b>Certification/ Licensure</b>	<b>Certifying Agency</b>	<b>Number Issued</b>
Business and Information Technology	A+	Computer Technology Industry Association (ComTIA)	8
	IC3	Certiport	106
	Microsoft Certified Professional (MCP)	VUE/Microsoft Corporation	95
	Microsoft Office Specialist (MOS)	Certiport/Microsoft Corporation	567
	Accounting (Basic)	National Occupational Competency Testing Institute (NOCTI)	27
	Accounting (Complete)	NOCTI	11
	Oracle (SQL)	Oracle	10
Family and Consumer Sciences	Food Handler Certification (ServSafe)	National Restaurant Association	72
	Early Childhood Careers 2	NOCTI	39
	Culinary Arts Cook—Level 2	NOCTI	46
Health and Medical Sciences	Bloodborne Pathogens	Occupational Health and Safety Administration (OSHA)	31
	Community Emergency Response Team (CERT)	Federal Emergency Management Agency (FEMA)	37
	CPR - (AED) for the Professional Rescuer	American Heart Association	104
	Dental Radiography Safety Exam	Virginia Board of Dentistry	42
	EMTB - Emergency Medical Technician-Basic	Dept of Health, Office of Emergency Medical Services	20
	Hazardous Materials Response	U.S. Department of Transportation	32
	Pharmacy Technician	Virginia Board of Pharmacy	50
Marketing	National Professional Certification in Customer Service	National Retail Federation	666
	National Professional Certification in Sales	National Retail Federation	70
Technology Education	Computer Aided Design (CAD) 2004	Brainbench/Previsor	181
Trade and Industrial Education	Carpentry Level 1 Apprenticeship	Virginia Department of Occupation Regulation (VDOR)	4
	Carpentry Level 2 Apprenticeship	Virginia Department of Occupation Regulation (VDOR)	2
	Cosmetology	Virginia Board of Cosmetology	80
	Criminal Justice	NOCTI	307
	Electrical Apprenticeship Exam Level 1	Virginia Department of Labor & Industry	47
	EPA	Environmental Protection Agency	9
	Graphic Imaging and Design	NOCTI	26
	HVARC Apprenticeship Exam Level 1	Air Conditioning and Refrigeration Institute (ARI)	13
	HVARC Apprenticeship Exam Level 2	Air Conditioning and Refrigeration Institute (ARI)	3
	NATEF (passed a minimum of 2 required tests)	National Automotive Technicians Education Foundation	68
	PhotoShop CS	NOCTI	32
	TV Production	NOCTI	72