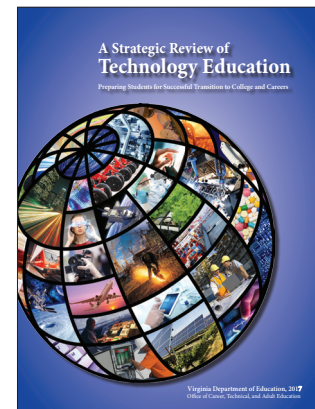# Virginia's CTE Resource Center

2016–2017
HIGHLIGHTS
An Annual Report of the CTE Resource Center, Serving Career and Technical Education in Virginia

In 2016-2017, the CTE Resource Center recorded another year of serving career and technical education teachers and administrators across the commonwealth with the continued support of the Virginia Department of Education, which funds and oversees our project, and from Henrico County Public Schools, which administers our grant. The Center is proud to provide its services and products free of charge to Virginia's educators.

Ongoing Curriculum Emphases

CanDo: The CanDo online competency tracking system continues to gain users in the commonwealth's school divisions. During the 2016-2017 school year, about 45 school divisions used CanDo.

Technology Education: In the fall of 2016, business/industry representatives, technology education teachers, representatives of higher education, and technology education students met to review all course offerings and consider delivery of content. The review provided recommendations to drive change, improvements to help prepare young people to succeed in careers and future education, and led to the publication of *A Strategic Review of Technology Education*.

A Strategic Review of **Technology Education**
Preparing Students for Successful Transition to College and Careers

Virginia Department of Education, 2017
Office of Career, Technical, and Adult Education

Cybersecurity: Development of a cybersecurity curriculum framework began in earnest in the fall of 2015. In the fall of 2016, Virginia's high school career and technical education educators, representatives of higher education, and business/industry representatives met to develop the curriculum that will become the foundation for developing fast-growth cybersecurity career pathways. Additional cybersecurity-related course frameworks were developed in Health and Medical Sciences, Trade and Industrial Education, and Technology Education. Future course frameworks will be developed in 2017-2018 in Marketing, Agricultural Education, and Family and Consumer Sciences.

For the Record

CTE Resource Center records show that in the past 35 years, since 1982-1983, the Center has

* Distributed more than five million curriculum documents
* Conducted 2,302 searches for patron-requested information
* Developed 3,134 curriculum products
* Facilitated or presented to 2,183 groups, addressing more than 47,382 educators and business/industry representatives.

Thank You

We appreciate the continued support from the commonwealth and all localities in our years of providing necessary resources to CTE administrators, teachers, and school counselors. We are grateful for the opportunity to serve CTE in Virginia. As always, we welcome your comments and suggestions. Many of our best ideas and improvements have come from your requests!

Curriculum Development

From July 1, 2016, to June 30, 2017, the Center completed 133 products and services in collaboration with the Department of Education.

Academics (2)
History SOL Curriculum Frameworks (editing)
Mathematics SOL Curriculum Frameworks (editing)

Agricultural Education (7)
Agricultural Businesss Fundamentals Framework Revision
Agricultural Business Management Framework Revision
Agricultural Business Operations Framework Revision
Agricultural Production Management Framework Revision
Introduction to Animal Systems Framework Revision
Small Animal Care I/II Framework Revision

Business & Information Technology (1)
Office Administration Framework Revision

Career Connections (7)
Career Investigations Framework Revision
Career Strategies Framework Revision
Education for Employment Level I/II Framework Revision
Education for Employment, Introduction, Framework Revision
R U Ready? Magazine 2016
Ready or Not 2016

Family and Consumer Sciences (5)
Career, Community, and Family Connections Framework Revision
Individual Development Framework Revision
Introduction to Virginia Teachers for Tomorrow Framework Revision
Teachers for Tomorrow I/II Framework Revision

Health & Medical Sciences (15)
Biomedical Innovation Framework Revision
Biomedical Technician Framework Revision
Dental Careers I/II Crosswalk
Food Science and Dietetics Framework Revision
Health Assisting Careers Framework Revision
Human Body Systems Framework Revision
Medical Coding and Billing I/II Framework Revision
Medical Interventions (Project Lead The Way) Framework Revision
Mental Health Assisting Careers Framework Revision
Practical Nursing I/II/III Framework Revision
Vision Care Technician Framework

Marketing Education (2)
Sports, Entertainment, and Recreation Marketing Framework Revision
Sports, Entertainment, and Recreation Marketing, Advanced, Framework Revision

Technology Education (14)
Aerospace Engineering Framework Revision
Architectural Drawing and Design Framework Revision
Communications Systems Framework Revision
Construction Technology Framework Revision
Digital Visualization Framework Revision
Engineering Design and Development (PLTW) Framework Revision
Engineering Drawing and Design Framework Revision
Graphic Communications Systems Framework Revision
Introduction to Technology Framework Revision
Inventions and Innovations Framework Revision
Sustainability and Renewable Technologies Framework Revision
Technical Drawing and Design Framework Revision
Technological Systems Framework Revision
TSA Competitive Events Standards Body Revision

Trade & Industrial Education (28)
Barbering I/II/III Framework Revision
Barbering Two-Year Program Framework
Beauty Salon Assistant Framework Revision
Cosmetology Two-Year Program Framework
Diesel Equipment Technology I/II/III Framework Revision
Drafting I/II/III Framework Revision
Electricity I/II/III Framework Revision
Mechatronics I/II/III Framework
Motorsports Technology I/II/III Framework Revision
Radio Communications I/II Framework Revision
Television and Media Production I/II/III Framework Revision
Water/Wastewater Treatment Technology I/II Framework

Editorial and Production Services (25)
Capitol Connections Articles (2)
FBLA 2016-2017
Career Success Stars Sample Video
Children's Engineering Journal–Winter 2017
Children's Engineering Resource Guide SOL Update
Conference Program: Experience Works–A Convening of Business Leaders and Educators
Creating Excellence Awards Program 2017
CTE Advisory Committee Meeting Minutes
CTERS Manual Review
Educators Rising State Conference Program
Governor's STEM Academy Proposal: Manassas City
Issues and Solutions 2017
Say Yes to FCS Postcard
SkillsUSA Advisors Handbook
Strategic Review of Technology Education
Systems and Control Flier
Virginia ACTE Fact Sheet 2016-17
VACTEA Conference Program 2016
VAME Teacher of the Year Biographies
Virginia Department of Education (VDOE) IDEA Annual Plan Overview Video
VDOE IDEA MOE Submission Video
VDOE CTE Completer Follow-up Video
VDOE CTE Education and Business Engagement Video
VDOE CTE End-of-Year Financial Video
VDOE CTE Master Schedule Collection Video

Instructional Resources (7)
STEM Brief (7)

Meeting/Facilitation Services (20)
Children's Engeering Council
Creating Excellence Judging Panel
CTE Advisory Committee (3)
Virginia Coalition for Fine Arts (4)
Meade Scholarship Meeting
EMT Curriculum Review Meeting
Technology Education Strategic Review Meeting
VACTEA Board Meeting (3)
VAHAMSEA Executive Board Meeting
Virginia ACTE Board Meeting (3)
Virginia ACTE Executive Committee Meeting

CENTER PRODUCTS (1)
Highlights/Annual Report 2015-2016

SUMMARY
Total DOE Products 132
Total Center Products 1

Total Products 133

Printing

In 2016-2017, the Center coordinated the Department of Education-approved printing or CD duplication of 747 copies of 4 items.

Search

The Center's search service focuses on filling non-routine information requests by providing library, web, and other resources. During 2016-2017, the Center addressed 7 research requests:

✦ Department of Education.............. 5   ✦ Field Requests (localities).................2

Distribution

In 2016-2017, the Center continued distributing printed, web-based, and electronic documents to Virginia educators. Figure A breaks down the distribution.

VERSO is the primary method of distributing CTE task lists, student competency records, and instructional frameworks. The statistics for VERSO distribution are identified separately, and then included in the Center's total figures for distribution, in Figure B.

Figure A: Materials Distributed, 2016-2017

CTE (Non-VERSO) Distribution

Print	8,420
CD	178
Electronic (PDF, Word, PPT, HTML)	10,474
Totals	**19,072**

Inservice Programs

In 2016-2017, the Center presented or facilitated 54 inservice programs and workshops to approximately 836 people. Twenty-nine meetings were held at the Center to revise curriculum; the Center hosted meetings of business/industry experts to review the existing curricula and hosted teachers at curriculum development meetings to create rigorous, relevant curriculum frameworks. The Center also conducted 23 curriculum development meetings "virtually," through live video conferencing with writer/editors at the Center and business/industry experts and teachers at remote locations. Other Center presentations were held for school divisions and the Virginia Department of Education professional development and training sessions, while others highlighted the Center's services and products. The Center also exhibited at six conferences.

Meeting Facilities Use

During 2016-2017, the Center hosted 42 groups and other meetings, primarily for the Virginia Department of Education's Office of Career and Technical Education and for Henrico County Public Schools. Approximately 740 business representatives, state CTE Advisory Committee members, administrators, school counselors, teachers, and students attended meetings at the Center.

CTECS

The Center managed Virginia's 2016-2017 program initiatives with the Career and Technical Education Consortium of States (CTECS). The year's work continued to focus on the Workplace Readiness Skills for the Commonwealth and development of instructional resources for the competencies.

Web Statistics

The Center's website has become a primary vehicle for news articles, online resources, and major announcements about CTE curriculum activities across the Commonwealth. Through the site, educators have access to all Virginia CTE task lists, student competency records, and instructional frameworks, as well as featured resources lists and links to valuable education-related websites.

Figure B: Web Activity, 2016-2017

Main Categories	Page Views
About/Home	68,003
Services	13,181
Links	9,447
Career Planning Guide	41,157
Administrative Planning Guide	109,800
VERSO	1,933,312
CanDo	1,996
Total	**2,182,727**

Center Assignments 2017-2018

In process for revision or development in the coming year:

Agriculture, Food, and Natural Resources
» Cybersecurity in Agricultural Education **(new)**
» Agricultural Production Technology
» Applied Agricultural Concepts
» Biotechnology Foundations in Agricultural Education
» Ecology and Environmental Management
» Equine Management
» Small Engine Repairs

Education and Training
» Air Force Junior ROTC I/II/III/IV
» Army Junior ROTC I/II/III/IV
» Marine Corps Junior ROTC I/II/III/IV
» Naval Junior ROTC I/II/III/IV
» Military Science Leadership V/VI/VII/VIII
» Introduction to Early Childhood, Education, and Services
» Early Childhood, Education, and Services I/II

Health Science
» Medical Assistant I/II
» Sports Medicine/Athletic Training I/II

Human Services
» Nail Technician I/II
» Nutrition and Wellness
» Cybersecurity in Family and Consumer Sciences **(new)**
» Introduction to Family and Human Services
» Family and Human Services I/II

Information Technology
» Keyboarding (Middle School)
» Keyboarding (Secondary)
» Keyboarding Applications
» Word Processing
» Office Specialist I/II/III
» Computer Applications
» Business Individualized Program (Development)

Manufacturing
» Production Systems

Marketing
» Introduction to Marketing
» Marketing
» Marketing, Advanced
» Cybersecurity in Digital Marketing **(new)**
» Real Estate Marketing **(new)**

Science, Technology, Engineering, and Mathematics
» Technology of Robotic Design
» Electronics Systems I/II
» Electronics Systems III
» Forensic Technology
» Engineering Explorations I
» Engineering Analysis and Applications II
» Engineering Concepts and Processes III
» Engineering Studies
» Game Design **(new)**

Transportation, Distribution, and Logistics
» Automotive Technology I/II/III
» Aviation Maintenance Technology I/II
» Air Traffic Controller
» Aviation Operations Management
» Aircraft Pilot Training I/II

All frameworks will be published in June 2018 so that teachers and administrators may plan their 2018-2019 classroom instruction.

About the CTE Resource Center

The CTE Resource Center is a Virginia Department of Education grant project administered by Henrico County Public Schools.

The Center welcomes visitors Monday through Friday, 8:00 a.m. to 4:30 p.m. We invite you to visit the Center and use our meeting rooms.

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