

HENRICO CAREER & TECHNICAL EDUCATION

CAREER GUIDE

EXPLORING YOUR CAREER OPTIONS



Arts &
Communications



Business
Management
& Technology



Health
Services



Human
Services



Architectural and
Engineering
Technology



Agriculture &
Natural
Resources



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Welcome Letter

Career and Technical Education (CTE) provides students with the foundational knowledge to jumpstart their careers, while at the same time preparing them for continuing education. Students who complete a CTE program graduate with more than just a diploma. Many graduate with not only a skill set that prepares them for the world of work, but also a nationally recognized certification or state license. CTE courses provide students with the opportunity to develop industry contacts to build resume's that can be used for future employment programs in apprenticeships, two- and four-year college, and private career schools. The programs we offer in CTE help strengthen academic achievement, enhance leadership and employable skills, and provide hands-on applications of academic concepts. Many offer the opportunity to gain college credit while in high school. In short, taking a Career and Technical Education program while in high school is a decision that "pays" as you prepare for the future.

In the department of Workforce and Career Development, our goal is to make sure we are offering programs that meet the needs of our students and the community. Business partnerships are key to the success of our programs. As you look through this career guide, you will see many different courses. We work closely with our business partners to ensure that the courses and certifications we offer will prepare you to be successful in your future career. Each course you take will bring you one step closer to ensuring you will graduate from Henrico County Public Schools **Enrolled, Enlisted, AND/OR Employed!**

Mac Beaton
 Director of Department of Workforce & Career Development



What is Career & Technical Education

Henrico Career & Technical Education (CTE) offers middle and high school students a hands-on, skills-based education that focuses on applying academics to real-world problems. Our courses spotlight in-demand occupations across Virginia's 17 Career Clusters (see pp. 9-10) covering business to energy, marketing to engineering, health science to manufacturing, cooking to computer sciences and more! Our CTE programs not only prepare students through high-quality instruction and developing workplace readiness skills, but provide opportunities to earn industry certifications, dual-enrollment, and work-based learning experiences.



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Find your career pathway. With over 150 elective programs for middle and high school students, Henrico CTE delivers real-world options for college and rewarding careers. Our programs allow students to explore a range of options for their future both inside and outside the classroom. Through Henrico CTE, students can start their path toward a career that they are passionate about, while earning valuable experience, college credits and more.



In Henrico, we believe all students should be enrolled, enlisted, and/or employed after their high school graduation. Whether you decide if post-secondary education, the military, or going straight into the workforce is right for you, CTE courses prepare students with life ready and instructional skills to ensure a smooth transition to the next stop on your career path.

In middle school, students can explore careers that match to their interests and skills through career exploration classes, clubs, and career interest assessments. In high school, students can take CTE courses or apply to our three Advanced Career Education (ACE) Centers. These specialty centers offer 30 concentrated CTE programs for junior and senior students that offer work-based experiences, college credits, industry certifications, and state licenses. The ACE Centers have early registration in the 8th grade, and then again in the 10th grade to fill any remaining open seats.



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Career & Technical Education *By The Numbers*



95% of CTE students graduate high school, which is 10% higher than the national average.

Between 2012 and 2022, there will be 50,557,900 job openings for CTE graduates. Of those jobs, 15,627,500 (30.9%) will be new.

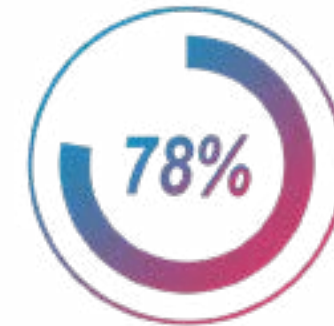


94% of today's high school students experience some degree of CTE courses.

Students enrolling in post-secondary CTE courses are eligible for federal financial aid.

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Technical and applied science graduates earn \$2,000 to \$11,000 more per year than those with a bachelor's degree.



78% of CTE graduates enroll in post-secondary education full-time.

1/3 of CTE students are enrolled in programs preparing them for careers in leading industries.



91% of high school graduates who earned 2-3 CTE credits enrolled in college.

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Source-Applied Educational Systems

In-Demand Careers

Career and Technical Education programs put our students on a track to fill careers that are high paying and in-demand for the future. These promising careers offer long-term projected growth and contain thousands of new career openings. Prepare yourself by enrolling in CTE's comprehensive programs in middle school and high school, as well as our Advanced Career Education (ACE) Center programs. These programs help enable our students to earn certifications and prepare for successful careers that are fulfilling and with competitive salaries. Here are a few examples of high demand careers that are growing at a rate of over 10% for the next 10 years.

Web Developers Web developers design and create websites.	Median Salary – \$73,760 per year Projected hiring growth by 2024 – 13%
Information Security Analysts Information security analysts plan and carry out security measures to protect an organization's computer networks and systems.	Median Salary – \$99,730 per year Projected hiring growth by 2024 – 32%
Software Applications Developer Software developers create the applications or systems that run on a computer or another device.	Median Salary – \$105,590 per year Projected hiring growth by 2024 – 21%

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Physical Therapist Physical therapists help patients who are recovering from injury or illness to regain movement and manage pain. They do this through bio-mechanics, exercise, electro-therapy, and other techniques.	Median Salary – \$84,020 per year Projected hiring growth by 2024 – 35%
Registered Nurse Registered nurses keep patients' records, administer medication, coordinate with other healthcare providers, monitor patients, and provide emotional support to patients and family members. They are employed in a broad variety of settings and usually specialize in a field of practice. They can work in hospitals, nursing homes, physician's offices, and home health care services.	Median Salary – \$68,450 per year Projected hiring growth by 2024 – 16%
Nurse Practitioner Nurse practitioners coordinate patient care and may provide primary and specialty healthcare.	Median Salary - \$115,800 per year Projected hiring growth by 2024 - 26%
Solar Panel Installer Solar photo-voltaic (PV) installers assemble, set up, and maintain rooftop or other systems that convert sunlight into energy.	Median Salary – \$44,890 per year Projected hiring growth by 2024 – 63%
Plumbers, Pipefitters, and Steamfitters Plumbers, pipefitters, and steamfitters install and repair piping fixtures and systems.	Median Salary – \$55,160 per year Projected hiring growth by 2024 – 14%
Heating, Air Conditioning, and Refrigeration Mechanics and Installers Heating, air conditioning, and refrigeration mechanics and installers work on heating, ventilation, cooling, and refrigeration systems.	Median Salary – \$48,730 per year Projected hiring growth by 2024 – 13%

Source-U.S. Bureau of Labor Statistics, 2019

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CAREER Clusters

A CAREER Cluster

helps students investigate careers and design a course of study to advance their career goals. Within each career cluster, there are multiple career pathways grouped by a common set of skills and instruction as a basis for success in an array of careers and educational pursuits. Based on the skills sets taught, all CTE courses are aligned with one or more career clusters and career pathways.

Cluster	Pathways
ARTS & COMMUNICATIONS	ARTS, AUDIO-VISUAL TECHNOLOGY & COMMUNICATIONS
BUSINESS MANAGEMENT & TECHNOLOGY	BUSINESS MANAGEMENT & ADMINISTRATION FINANCE INFORMATION TECHNOLOGY MARKETING
HEALTH SERVICES	HEALTH SCIENCE
HUMAN SERVICES	EDUCATION & TRAINING GOVERNMENT & PUBLIC ADMINISTRATION HOSPITALITY & TOURISM HUMAN SERVICES LAW, PUBLIC SAFETY, CORRECTIONS & SECURITY
INDUSTRIAL & ENGINEERING TECHNOLOGY	ARCHITECTURE & CONSTRUCTION MANUFACTURING SCIENCE, TECHNOLOGY, ENGINEERING & MATH TRANSPORTATION, DISTRIBUTION & LOGISTICS ENERGY
NATURAL RESOURCES & AGRICULTURE	AGRICULTURE, FOOD & NATURAL RESOURCES

Arts & Communications

Arts, Audio-Visual Technology & Communications



What Is It?

The **Arts, A/V Technology and Communications cluster** is about flexing your creativity, design, writing, performing, and multimedia skills. Prepare for careers from graphic design to broadcast journalism through a focus on advanced technologies used in venues including corporate boardrooms, hotels and convention centers, classrooms, and museums.



Are you interested in a career in the Arts, Audio Visual Technology & Communication cluster? Talk to your school counselor or teachers about what classes to take and visit HenricoCTE.com for more information.

Do you like to . . .

- Communicate effectively with others?
- Organize, plan and multi-task?
- Pay attention to detail?
- Practice leadership skills?
- Use your math skills proficiently?

Sample Careers

- Graphic Designers
- Lighting Technicians
- Publicity Directors
- Cutters/Fitters/Seamstress
- Fine Artists
- Photographers
- Special Effects Coordinators
- Videographers
- Camera Operators
- Animators
- Sound Technicians
- Make-Up Artists
- Sign Painters
- Audio and Video Technology and Film
- Broadcasting and Journalism
- Performing Arts
- Printing Technology
- Telecommunications

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High School Courses

- Graphic Communications I & II: #8660, #8661 (ACE)
- Radio Broadcasting & Journalism: I & II: #8640, #8641 (ACE)
- TV Media Production I&II: #8688, #8689 (ACE)
- Game Design & Web Development I&II: #6680, #6681(ACE)
- Advanced Drafting & Design: #8438
- Architectural Drawing/Design/CAD: #8437
- Communication Systems: #8415
- Digital Visualization: #8459
- Creative Fashion (Intro to Fashion Careers): #8248
- Introduction to Interior Design: #8254
- Introduction to Photography: #8474
- Multimedia Graphic Design: #6632
- Photography (Imaging Technology): #8455
- Video & Media Technology: #8497

ALL UNDERLINED TEXT ARE LINKS

In-Demand Careers

Education Needed	Occupation	Median Salary	Job Growth Over next 10 years	Job Openings Projected over next 10 years
Associates Degree	Actors	\$45,510 per year	3% (As fast as average)	2,100
	Broadcast and Sound Engineering Technicians	\$47,420 per year	9% (Much faster than average)	13,200
Bachelor's Degree or more	Producers and Directors	\$76,400 per year	10% (Much faster than average)	16,000
	Multimedia Artists and Animators	\$77,700 per year	4% (As fast as average)	2,800
	Film and Video Editors and Camera Operators	\$61,900 per year	18% (Much faster than average)	12,400
	Special Effects Artists and Animators	\$77,700 per year	4% (As fast as average)	2,800

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Source-U.S. Bureau of Labor Statistics, 2019

Business Management & Technology

Business Management & Administration



What Is It?

Business Management and Administration cluster uses your organizational and leadership skills to prepare for careers where you plan, direct and evaluate operations to run a successful business. There are a variety of career opportunities available including hiring staff, analyzing data and launching your own start-up. This career cluster employs the largest number of workers in Virginia.



Are you interested in a career in the **Business Management & Administration cluster**? Talk to your school counselor or teachers about what classes to take and visit HenricoCTE.com for more information.

Do you like to . . .

- Communicate effectively with others?
- Organize, plan and multi-task?
- Pay attention to detail?
- Practice leadership skills?
- Use your math skills proficiently?

Sample Careers

- Chief Executive Officer
- Entrepreneur
- Controller
- Adjuster
- Budget, Cost or Systems Analyst
- Marketing Manager
- Human Resources Manager
- Training and Development Specialist
- Executive Assistant
- Wholesale or Retail Buyer
- Retail Salesperson
- Meeting and Convention Planner
- Bookkeeper
- Office Manager
- Receptionist

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Middle School Courses

- [Make It Your Business: #8112](#)
- [Principles of Business and Marketing: 6116](#)
- ALL UNDERLINED TEXT ARE LINKS**

In-Demand Careers

Education Needed	Occupation	Median Salary	Job Growth Over next 10 years	Job Openings Projected over next 10 years
Bachelor's Degree or more	Administrative Services and Facilities Managers	\$98,890 per year	6% (Faster than average)	21,200
	Meeting, Convention, and Event Planners	\$51,560 per year	8% (Much faster than average)	10,800
	Training and Development Specialists	\$62,700 per year	9% (Much faster than average)	28,200
	Advertising, Promotions, and Marketing Managers	\$141,490 per year	6% (Faster than average)	108,100
	Human Resources Managers	\$121,220 per year	6% (Faster than average)	18,800

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High School Courses

- [Medical Systems Administration: #6730 \(ACE\)](#)
- [Legal Systems Administration: #6735\(ACE\)](#)
- [Business Management: #6136](#)
- [Entrepreneurship: #9093, #9093V](#)
- [Microsoft IT Academy: #6612, #6612V](#)
- [Advanced Microsoft IT Academy Honors: #6613, #6613V](#)
- [Office Administration: #6621, #6621V](#)
- [Principles of Business & Marketing: #6115](#)
- ALL UNDERLINED TEXT ARE LINKS**

Source-U.S. Bureau of Labor Statistics, 2019

Business Management & Technology

Finance



Do you like to . . .

- Work daily with numbers?
- Assist people with the management of money?
- Organize, plan and multi-task?
- Pay attention to detail?
- Communicate effectively with others?



What Is It?

The **Finance cluster** is about using your skills in math and statistics to prepare for well-paying careers in financial and investment planning, banking, insurance, and business financial management. Every part of the economy offers a career in this field, providing endless opportunities to work in a variety of areas.

Sample Careers

- Accountant
- Auditor
- Development Officer
- Financial Analyst
- Treasurer
- Controller
- Economist
- Budget Analyst
- Personal Financial Advisor
- Tax Preparer
- Investment Advisor
- Loan Officer
- Debt Counselor
- Actuary
- Underwriter
- Insurance Appraiser
- Bank Teller

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High School Courses

[Accounting I Honors: #6320A, #6320V](#)
[Accounting II Honors: #6321A, #6321V](#)
[Business Law: #6132](#)
[Economics and Personal Finance: #6120](#)
[Entrepreneurship: #9093](#)
ALL UNDERLINED TEXT ARE LINKS

In-Demand Careers

Education Needed	Occupation	Median Salary	Job Growth Over next 10 years	Job Openings Projected over next 10 years
Bachelor's Degree or more	Loan Officers	\$63,270 per year	3% (As fast as average)	10,100
	Personal Financial Advisors	\$89,330 per year	4% (As fast as average)	11,600
	Budget Analysts	\$76,540 per year	3% (As fast as average)	1,900
	Financial Analysts	\$81,590 per year	5% (Faster than average)	26,800
	Accountants and Auditors	\$73,560 per year	4% (As fast as average)	61,700
	Financial Managers	\$129,890 per year	15% (Much faster than average)	108,100
	Economists	\$105,020 per year	14% (Much faster than average)	2,900

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Source-U.S. Bureau of Labor Statistics, 2019



Are you interested in a career in the Finance cluster? Talk to your school counselor or teachers about what classes to take and visit HenricoCTE.com for more information.

Business Management & Technology

Information Technology



What Is It?

The **Information Technology cluster** uses your love of technology to learn how to design, develop and manage different types of software and hardware programs. Though this field requires a solid foundation in math and science as well as strong technical skills, there are careers in information technology in virtually every part of the economy.



Are you interested in a career in the **Information Technology cluster**? Talk to your school counselor or teachers about what classes to take and visit HenricoCTE.com for more information.

Do you like to . . .

- Design and develop computer hardware, software, and systems?
- Use your math and computer skills proficiently?
- Pay attention to detail?
- Use your problem-solving abilities to serve others?
- Practice patience and stay on task?

Sample Careers

- Web Designer or Webmaster
- Network Administrator or Technician
- Telecommunications Technician
- Data Communications Analyst
- Security or Database Administrator
- Application Integrator
- Computer or Game Programmer
- Software Applications Architect
- 3D Animator
- Virtual Reality Specialist
- Graphic Artist
- Help Desk Specialist
- Technical Writer

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Middle School Courses

- Digital Applications: #6617MS
- Discovering Business & IT: #6600
- Exploring Business Skills and Keyboarding: #6148
- Exploring Computer Science: #6670MS
- Introduction to Coding: #6609
- Introduction to Game Design and Coding: #6642MS

ALL UNDERLINED TEXT ARE LINKS

In-Demand Careers

Education Needed	Occupation	Median Salary	Job Growth Over next 10 years	Job Openings Projected over next 10 years
Associates Degree	Web Developers	\$73,760 per year	8% (Much faster than average)	14,000
	Computer Support Specialists	\$55,510 per year	8% (Much faster than average)	67,300
Bachelor's Degree or more	Database Administrators	\$93,750 per year	10% (Much faster than average)	12,800
	Software Developers	\$107,510 per year	22% (Much faster than average)	316,000
	Information Security Analysts	\$99,730 per year	31% (Much faster than average)	40,900
	Computer and Information Systems Managers	\$146,360 per year	10% (Much faster than average)	48,100

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Source-U.S. Bureau of Labor Statistics, 2019

Business Management & Technology

Marketing



What Is It?

The **Marketing cluster** flexes your creative skills for a career in advertising, public relations, sales, or planning. This Career cluster will prepare you to work on projects such as promotional campaigns, event planning and new sales techniques.



Are you interested in a career in the Marketing cluster? Talk to your school counselor or teachers about what classes to take and visit HenricoCTE.com for more information.

Do you like to . . .

- Communicate effectively with others?
- Organize, plan and multi-task?
- Be persuasive?
- Use your creativity and problem-solving abilities to serve others?
- Show your initiative and tenacity?



Sample Careers

- Manager of sales or information
- Researcher
- Sales Specialist
- Demonstrator or Product Promoter
- Wholesale or retail buyer
- Distributor
- Public Relations Manager or Specialist
- Marketing Communications or Promotions Manager or Specialist

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High School Courses

[Digital and Social Media Marketing: #8125, #8125V](#)
[Fashion Marketing I & II: #8140, #8140V, #8145, 8145V](#)
[Marketing I & II: #8120, #8120V, #8130, 8130V](#)
ALL UNDERLINED TEXT ARE LINKS

In-Demand Careers

Education Needed	Occupation	Median Salary	Job Growth Over next 10 years	Job Openings Projected over next 10 years
Bachelor's Degree or more	Market Research Analysts	\$63,790 per year	18% (Much faster than average)	130,300
	Advertising, Promotions, and Marketing Managers	\$141,490 per year	6% (Faster than average)	18,800
	Sales Managers	\$126,640 per year	4% (As fast as average)	15,400
	Sales Engineers	\$103,900 per year	6% (Faster than average)	4,100
	Market Research Analysts	\$63,790 per year	18% (Much faster than average)	130,300
	Public Relations and Fundraising Managers	\$116,180 per year	9% (Much faster than average)	8,100

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Source-U.S. Bureau of Labor Statistics, 2019

Health Services Health Science



What Is It?

The **Health Science cluster** is about using your love of science to help keep people healthy and treat those who are not. Work directly with people as a doctor or physical therapist or on your own by conducting research on diseases and other important health information. This field allows you to work in diverse environments such as hospitals, long term care, etc.



Are you interested in a career in the Health Science cluster? Talk to your school counselor or teachers about what classes to take and visit HenricoCTE.com for more information.

Do you like to . . .

- Help others stay healthy?
- Work in a fast paced, often pressure-filled environment?
- Show empathy and compassion to others?
- Pay attention to detail?
- Use your math and science skills proficiently?

Sample Careers

- Doctor
- Nurse
- Emergency Medical Technician
- Genetic Counselor
- Immunologist
- Forensic Scientist
- Cancer Researcher
- Patent Researcher
- Designing plants (food or materials) or medicines specific to bettering human life.
- Bioinformatics
- Gene Therapist
- Technical Writers
- Microbiologist
- Science Teacher

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High School Courses

[Emergency Medical Technician: #8333, #8334 \(ACE\)](#)
[Nurse Aide: #8360, #8362 \(ACE\)](#)
[Pharmacy Technician: #8305, #8306 \(ACE\)](#)
[Practical Nursing I & II & III: #8357, #8358, #8359 \(ACE\)](#)
[Sports Medicine: #7660, #7662 \(ACE\)](#)
[Vet Science I & II: #8088, #8089 \(ACE\)](#)
ALL UNDERLINED TEXT ARE LINKS

In-Demand Careers

Education Needed	Occupation	Median Salary	Job Growth Over next 10 years	Job Openings Projected over next 10 years
High School Diploma + Certification	Nursing Assistants and Orderlies	\$29,640 per year	8% (Much faster than average)	119,500
	Home Health Aides and Personal Care Aides	\$25,280 per year	34% (Much faster than average)	1,159,500
	Licensed Practical Nurses	\$47,480 per year	9% (Much faster than average)	65,700
	Pharmacy Technicians	\$33,950 per year	4% (As fast as average)	15,200
	EMT's and Paramedics	\$35,400 per year	6% (Faster than average)	17,000
Associates Degree	Registered Nurses	\$73,300 per year	7% (Faster than average)	221,900
	Respiratory Therapists	\$61,330 per year	19% (Much faster than average)	26,300
Bachelor's Degree or more	Microbiologists	\$75,650 per year	3% (As fast as average)	600
	Forensic Science Technicians	\$59,150 per year	14% (Much faster than average)	2,400

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Source-U.S. Bureau of Labor Statistics, 2019

Human Services

Education & Training



What Is It?

The **Education and Training cluster** is about using your ability to motivate and your love of people to provide education and training that reaches individuals of all ages and across a range of industries. Careers include teaching in a classroom, leading as a college president and serving in your community as a social worker.



Are you interested in a career in the Education & Training cluster? Talk to your school counselor or teachers about what classes to take and visit HenricoCTE.com for more information.

Do you like to . . .

- Help people learn new things?
- Work with children?
- Show empathy and compassion to others?
- Use your creativity?
- Communicate and motivate others?

Sample Careers

- Superintendent, Principal or Administrator
- Teacher or Instructor
- Preschool or Kindergarten Teacher
- Clinical, Developmental or Social Psychologist
- Social Worker
- Counselor
- Teacher Assistant
- Parent Educator
- Child Care Worker
- Coach
- Recreation Worker
- Sign Language Interpreter

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Middle School Courses

Recommended courses for middle schools:

[Introduction to Virginia Teachers for Tomorrow: #9061MS](#)

ALL UNDERLINED TEXT ARE LINKS

High School Courses

Recommended courses for high schools:

[Early Childhood Education and Services I & II: #8285, #8286 \(ACE\)](#)

[Child Development and Parenting: #8232](#)

[Introduction to Virginia Teachers for Tomorrow: #9061](#)

[Virginia Teachers for Tomorrow Honors I & II: #9062A, #9072A](#)

ALL UNDERLINED TEXT ARE LINKS

In-Demand Careers

Education Needed	Occupation	Median Salary	Job Growth Over next 10 years	Job Openings Projected over next 10 years
High School Diploma + Certification	Teacher Assistants	\$27,920 per year	4% (As fast as average)	50,500
	Child Care Worker	\$24,230 per year	2% (Slower than average)	19,500
Associates Degree	Preschool Teachers	\$30,520 per year	2% (Slower than average)	13,500
Bachelor's Degree or more	Elementary, Middle, and High School Principals	\$96,400 per year	4% (As fast as average)	11,100
	High School Teachers	\$61,660 per year	4% (As fast as average)	40,200
	School and Career Counselors	\$57,040 per year	8% (Much faster than average)	26,800
	Psychologists	\$80,370 per year	3% (As fast as average)	5,700

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Source-U.S. Bureau of Labor Statistics, 2019

Human Services

Government & Public Administration



What Is It?

The **Government and Public Administration cluster** is about using your passion for public service to prepare to work in a diverse array of jobs found in local, state and federal government. Virtually every occupation can be found within this field. You may help protect our country, represent our interests abroad, or pass and enforce laws.



Are you interested in a career in the Government & Public Administration cluster? Talk to your school counselor or teachers about what classes to take and visit HenricoCTE.com for more information.

Do you like to . . .

Do You Like To...

- Make a difference in your community?
- Practice excellent active listening skills?
- Put people at ease and give them a sense of safety?
- Pay attention to detail?
- Communicate effectively with others?

Sample Careers

Sample Careers

- Elected Official (City Council, Mayor, Governor, etc.)
- City Manager
- Lobbyist
- Legislative Assistant
- Military Member (Army, Navy, Marine Corps, Air Force, Coast Guard)
- Foreign Service, Diplomatic or Consular Officer
- Federal Aid Coordinator
- Tax Examiner
- Internal Revenue Agent or Investigator
- Auditor
- Bank Examiner
- Cargo or Border Inspector
- Child Support Officer
- Court Administrator
- City, County or Court Clerk
- Guardian Ad Litem

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High School Courses

Recommended courses for high schools:

- [Legal Systems Administration: #6735 \(ACE\)](#)
- [Air Force JROTC I/II/III/IV: #7913, #7916, #7918, #7919](#)
- [Marine JROTC I/II/III/IV: #7913, #7916, #7918, #7919](#)
- [Naval JROTC I/II/III/IV: #7913, #7916, #7918, #7919](#)

ALL UNDERLINED TEXT ARE LINKS

In-Demand Careers

Education Needed	Occupation	Median Salary	Job Growth Over next 10 years	Job Openings Projected over next 10 years
High School Diploma + Certification	Court Reporters	\$60,130 per year	9% (Much faster than average)	1,400
	Paralegal	\$51,740 per year	10% (Much faster than average)	35,300
Associates Degree	Paralegals and Legal Assistants	\$52,920 per year	10% (Much faster than average)	35,300
	Political Scientists	\$125,350 per year	6% (Faster than average)	400
Bachelor's Degree or more	Accountants and Auditors	\$73,560 per year	4% (As fast as average)	61,700
	Financial Examiners	\$81,090 per year	7% (Faster than average)	4,900
	Urban Planners	\$74,350 per year	11% (Much faster than average)	4,400
	Social Workers	\$50,470 per year	13% (Much faster than average)	90,700

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Source-U.S. Bureau of Labor Statistics, 2019

Human Services

Hospitality & Tourism



What Is It?

The **Hospitality & Tourism cluster** encompasses the management, marketing and operations of restaurants and other food services, lodging, attractions, recreation events, and travel related services.

Do you like to . . .

- Help people have fun and feel at ease?
- Get along well with other people?
- Practice excellent active listening skills, patience and empathy?
- Pay attention to detail?
- Communicate effectively with others?

Sample Careers

- Restaurant, Food Service, Lounge, Casino, Coffee Shop, or Catering Owner, Operator or Manager
- Hotel, Motel, Resort, or Bed and Breakfast Owner, Operator or Manager
- Tour Company Owner, Operator, or Manager
- Meeting and Convention Planner
- Interpreter or Translator
- Tourism and Travel Services Marketing Manager



Are you interested in a career in the **Hospitality & Tourism cluster**? Talk to your school counselor or teachers about what classes to take and visit HenricoCTE.com for more information.

High School Courses

- Culinary Arts I & II: # 8275, #8276 (ACE)
 - Food Science & Dietetics: #8239 (ACE)
 - Baking & Pastry Specialization: #8279 (ACE)
 - Event Planning and Tourism Marketing I and II: #8139, #8169 (ACE)
 - Introduction to Culinary Arts: #8250, 8249
 - Sports, Entertainment and Marketing I & II: #8175, #8177V
 - Sports, Entertainment and Marketing II Honors: #8177A, #8177V
- ALL UNDERLINED TEXT ARE LINKS**



In-Demand Careers

Education Needed	Occupation	Median Salary	Job Growth Over next 10 years	Job Openings Projected over next 10 years
High School Diploma + Certification	Food and Beverage Server and Related Workers	\$21,750 per year	14% (Much faster than average)	775,300
	Lodging Managers	\$54,430 per year	1% (Little or no change)	600
	Food Service Managers	\$56,590 per year	11% (Much faster than average)	38,500
	Chefs and Head Cooks	\$53,380 per year	6% (Faster than average)	9,500
Bachelor's Degree or more	Meeting, Convention, and Event Planners	\$51,560 per year	8% (Much faster than average)	10,800
	Interpreters and Translators	\$52,330 per year	20% (Much faster than average)	15,500

Human Services

Human Services



What Is It?

The **Human Services cluster** uses your skills in communication and problem solving to provide support to families and individuals with services from working in early childhood care to providing mental health services for older adults. This diverse career cluster allows you to work in a variety of settings including health care, spas, schools, and community centers.



Are you interested in a career in the Human Services cluster? Talk to your school counselor or teachers about what classes to take and visit HenricoCTE.com for more information.

Do you like to . . .

- Assist families and individuals to lead more satisfying lives?
- Show empathy and compassion to others?
- Use your problem-solving abilities to serve others?
- Practice good interpersonal skills?
- Work with numerous people on a regular basis?

Sample Careers

- Child Care Worker
- Child, Family, or School Social Worker
- Director of Childcare Facility
- Preschool Teacher
- Parent Educator
- School Counselor
- Sociologist
- Social Services Worker
- Personal or Home Care Aide
- Leisure Activities Counselor
- Recreation Worker
- Consumer Credit Counselor
- Personal Financial Advisor
- Consumer Goods or Services Retailing Representative or Buyer
- Cosmetologist, Hairdresser or Hairstylist



Middle School Courses

Recommended courses for high schools:

- Teen Living 6 (FACS Exploratory I): #8206
- Teen Living 7 (FACS Exploratory II): #8263
- Teen Living 8 (FACS Exploratory III): #8245
- Independent Living: #8219MS

ALL UNDERLINED TEXT ARE LINKS



In-Demand Careers

Education Needed	Occupation	Median Salary	Job Growth Over next 10 years	Job Openings Projected over next 10 years
High School Diploma + Certification	Barbers, Hairstylists, and Cosmetologists	\$26,270 per year	8% (Faster than average)	63,900
	Skincare Specialists	\$34,090 per year	11% (Much faster than average)	7,800
	Manicurists and Pedicurists	\$25,770 per year	10% (Faster than average)	15,700
	Social Workers	\$51,760 per year	13% (Much faster than average)	90,700
Master's degree	School and Career Counselors and Advisors	\$58,120 per year	8% (Much faster than average)	26,800

Source-U.S. Bureau of Labor Statistics, 2019

Human Services

Law, Public Safety, Corrections & Security



What Is It?

The **Law, Public Safety, Corrections and Security cluster** uses your love of people and passion for your community to prepare for careers in law, public safety, and security. Responsibilities may include protecting people from harm, crime or natural disasters. Job opportunities range from public safety officers to legal services.



Are you interested in a career in the Law, Public Safety, Corrections & Security? Talk to your school counselor or teachers about what classes to take and visit HenricoCTE.com for more information.

Do you like to . . .

- Make a difference in your community?
- Show empathy, compassion, and desire to help ?
- Put people at ease and give them a sense of safety?
- Show courage and work in the face of danger?
- Demonstrate your inner strength to survive in a demanding profession?

Sample Careers

- Judge
- Attorney
- Paralegal
- Court Reporter
- Police Officer
- Correctional Officer
- Probation/Parole Officer
- Immigration and Customs Inspector
- Fire Fighter
- Rescue Worker (EMT, Paramedic)
- Emergency Dispatcher
- Loss Prevention Specialist
- Information Systems Security Specialist
- Certified Security Officer
- Park Ranger

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High School Courses

Recommended courses for high schools:
Criminal Justice I & II: #8702, #8703 (ACE)
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In-Demand Careers

Education Needed	Occupation	Median Salary	Job Growth Over next 10 years	Job Openings Projected over next 10 years
High School Diploma	Firefighters	\$52,500 per year	6% (Faster than average)	20,300
	Police and Detectives	\$67,290 per year	5% (Faster than average)	40,600
	Police, Fire, and Ambulance Dispatchers	\$43,290 per year	6% (Faster than average)	6,100
	Court Reporters	\$61,660 per year	9% (Much faster than average)	1,400
Associate Degree	Paralegals and Legal Assistants	\$51,740 per year	12% (Much faster than average)	39,000
Bachelor's Degree or more	Lawyers	\$126,930 per year	6% (As fast as average)	50,100
	Arbitrators, Mediators, and Conciliators	\$63,930 per year	8% (Faster than average)	600
	Judge	\$120,090 per year	2%	1,100
	Information Security Analysts	\$99,730 per year	31% (Much faster than average)	40,900

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Source-U.S. Bureau of Labor Statistics, 2019

Industrial and Engineering Technology *Architecture & Construction*



What is it?

The **Architecture and Construction cluster** is about using your skills in design, planning, and management to work in careers building and maintaining structures such as buildings, homes, bridges, or machinery. Work opportunities include developing new structures, restorations, additions, alterations, and repairs. Construction is the pathway with the highest number of employment opportunities.



Are you interested in a career in the Architecture & Construction cluster? Talk to your school counselor or teachers about what classes to take and visit HenricoCTE.com for more information.

Do you like to . . .

- Work with your hands?
- Use your creativity and problem-solving abilities to design and build?
- Work accurately with detail?
- Use your math skills proficiently?
- Work outdoors, indoors, or a combination of both?

Sample Careers

- Architectural and civil drafter or engineer
- Environmental designer
- Residential or commercial carpenter
- Construction worker
- Systems configuration manager
- Electrical design engineer
- Electrician
- HVAC/HVACR technician
- Building services technician
- Painter
- Sheet metal technician

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High School Courses

[Air Conditioning, Refrigeration, & Plumbing I & II: #8503, #8504 \(ACE\)](#)
[CAD- Computer-Aided Drafting/3D Animation I & II: #8530, #8531 \(ACE\)](#)
[Carpentry I & II: #8601, #8602 \(ACE\)](#)
[Electricity & Cabling I & II: #8533, #8534 \(ACE\)](#)
[Masonry I & II: #8512, 8513 \(ACE\)](#)
[Architectural Drawing/Design/CAD: #8437](#)
[Construction Technology: #8432](#)
ALL UNDERLINED TEXT ARE LINKS

In Demand Careers

Education Needed	Occupation	Median Salary	Job Growth Over next 10 years	Job Openings Projected over next 10 years
High School Diploma + Certification	Electricians	\$56,180 per year	8% (Much faster than average)	62,200
	Plumbers, Pipefitters, and Steamfitters	\$56,330 per year	4% (As fast as average)	20,900
	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	\$50,590 per year	4% (As fast as average)	15,100
	General Maintenance and Repair Workers	\$40,850 per year	4% (As fast as average)	63,000
Bachelor's Degree or more	Construction Managers	\$97,180 per year	8% (Much faster than average)	40,400
	Electrical and Electronics Engineers	\$103,390 per year	3% (As fast as average)	10,800
	Environmental Engineers	\$92,120 per year	3% (As fast as average)	1,700

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Source-U.S. Bureau of Labor Statistics, 2019

Industrial and Engineering Technology

Energy



What is it?

The **Energy cluster** uses your interests in helping people and passion for your community to prepare for careers in the energy sectors. Energy workers find rewarding experience in keeping the energy flowing. Responsibilities may include accessing natural resources used as fuel, directly assisting the utility and non-utility generation of power, constructing, operating, and maintaining infrastructure such as power lines, power and pipeline construction, fuel distribution, and the manufacture of electrical transmission equipment such as solar and wind equipment. The cluster also deals with energy efficiency and sustainability.

Are you interested in a career in the Energy cluster? Talk to your school counselor or teachers about what classes to take and visit HenricoCTE.com for more information.

Do you like to . . .

- Help people in your community while safeguarding our environment?
- Use your excellent math and science skills?
- Look at and propose solutions to a problem through multiple approaches?
- Collaborate in teams?
- Ask questions?

Sample Careers

- Architects
- Civil Engineers
- Construction and Building Inspectors
- Control and Valve Installers and Repairers
- Electrical Engineers
- Electrical Power Line Installers and Repairers
- Electricians
- Electronics Engineers
- Facilities Manager
- Gas Plant/Refinery Operator, Accountant
- Wind Turbine Service Technicians
- Communications/Public Relations Specialist
- Geologist
- Solar Photo-Voltaic Installers

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High School Courses

Recommended courses for high schools:
Electricity & Cabling I & II: #8533, #8534 (ACE)
Electronic Systems I & II: #8416, #8412
Energy and Power: #8448, #8495
ALL UNDERLINED TEXT ARE LINKS

In Demand Careers

Education Needed	Occupation	Median Salary	Job Growth Over next 10 years	Job Openings Projected over next 10 years
High School Diploma + Certification	Electricians	\$56,180 per year	8% (Much faster than average)	62,200
	Solar Photovoltaic Installers	\$44,890 per year	51% (Much faster than average)	6,100
	Construction and Building Inspectors	\$60,710 per year	3% (As fast as average)	3,900
	Wind Turbine Technicians	\$56,230 per year	61% (Much faster than average)	4,300
Bachelor's Degree or more	Electrical and Electronics Engineers	\$101,250 per year	3% (As fast as average)	10,800
	Public Relations Specialists	\$62,810 per year	7% (Faster than average)	19,700
	Geoscientists	\$93,580 per year	5% (Faster than average)	1,600

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Source-U.S. Bureau of Labor Statistics, 2019

Industrial and Engineering Technology

Manufacturing



What is it?

The **Manufacturing cluster** uses your skills in planning and organization along with your love of technology, engineering, and design to work in careers processing materials into products. Careers also include related professional and technical support activities such as production planning, production design, maintenance, and engineering.



Are you interested in a career in the **Manufacturing cluster**? Talk to your school counselor or teachers about what classes to take and visit HenricoCTE.com for more information.

Do you like to . . .

- Figure out how things work?
- Work with your hands?
- Analyze and problem solve?
- Take raw materials and turn them into finished products?
- Pay attention to detail?

Sample Careers

- Production
- Manufacturing Production Process Development
- Maintenance
- Installation and Repair
- Logistics and Inventory Control
- Health Safety and Environmental Assurance
- Engineer in Design, Industrial, Aerospace, Quality, Logistical, Safety or Manufacturing
- Medical Appliance Manufacturer
- Microchip Manufacturer
- Precision Inspector, Tester or Grader
- Technician in Automated Manufacturing, Laser, Biomedical Equipment, Lab, Quality Control, Safety Coordination
- Inspector
- Machine Operator
- Communication System, Computer or Meter Installer or Repairer

High School Courses

Recommended courses for high schools:

STEM and Precision Machining I & II: #8539, #8540 (ACE)

Welding: #8572 (ACE)

Production Systems with Metals: #8446M

Production Systems with Woods: #8447W

Materials and Processes Technology with Metals: #8478M

Materials and Processes Technology with Woods: #8433W

ALL UNDERLINED TEXT ARE LINKS

In Demand Careers

Education Needed	Occupation	Median Salary	Job Growth Over next 10 years	Job Openings Projected over next 10 years
High School Diploma + Certification	Welders, Cutters, Solderers, and Brazers	\$44,190 per year	3% (As fast as average)	13,600
	General Maintenance and Repair Workers	\$40,850 per year	4% (As fast as average)	63,000
	Machinists and Tool and Die Makers	\$47,040 per year	3% (As fast as average)	12,400
	Occupational Health and Safety Specialists and Technicians	\$72,530 per year	4% (As fast as average)	4,800
Associates Degree	Medical Equipment Repairers	\$51,610 per year	5% (Faster than average)	2,800
Bachelor's Degree or more	Industrial Engineers	\$88,950 per year	10% (Much faster than average)	30,000
	Logisticians	\$76,270 per year	4% (As fast as average)	8,200

Source-U.S. Bureau of Labor Statistics, 2019

Industrial and Engineering Technology

Science, Engineering, Technology, & Math



What Is It?

The **Science, Technology, Engineering, and Mathematics cluster** uses your abilities in problem solving and prepares for careers using science, technology, engineering, and math (STEM) skills. People in this career cluster conduct in-depth research to provide solutions to a variety of technical problems within many different fields. A postsecondary degree and relevant work experience are necessary to succeed in this field.



Are you interested in a career in the Science, Technology, Engineering and Mathematics cluster? Talk to your school counselor or teachers about what classes to take and visit HenricoCTE.com for more information.

Do you like to . . .

- Figure out how to make things work?
- Use your excellent math and science skills?
- Pay attention to detail?
- Ask questions?
- Use your creativity and problem-solving abilities?

Sample Careers

- Biologist or Microbiologist
- Chemist
- Biochemist or Biophysicist
- Mathematician
- Statistician
- Engineer: Aerospace, Industrial, Biotechnology, Chemical, Marine, Materials, Civil, Petroleum
- Engineering Manager
- Geoscientist or Materials Scientist
- Surveying and Mapping Technician
- Architect
- Naval Architect
- Architectural or Civil Drafter
- Materials Lab and Supply Technician
- Quality Technician
- Nuclear Equipment Operation or Monitoring Technicians
- Technical Writer
- Post-Secondary Education Vocational Teacher

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Middle School Courses

- Exploring Computer Science: #6670MS
- Introduction to Technology: #8481
- Inventions and Innovations: #8464
- Technology Foundations: #8403MS
- Technological Systems/Manufacturing: #8462

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High School Courses

- High Tech Academy (ACE)
- Coding I Honors/Programing I: #6640A
- Engineering Explorations I Honors: #8450A
- Engineering Analysis and Applications II Honors: #8451A
- Engineering Drawing/Design/CAD: #8436
- Exploring Computer Science: #6670
- Manufacturing Systems I with Metals: #8426M
- Manufacturing Systems II with Metals: #8427M
- Manufacturing Systems I with Woods: #8425W
- Manufacturing Systems II with Woods: #8427W
- Technical Drawing/Design/CAD: #8435, 8434
- Technology of Robotic Design: #8421
- Technology Transfer: #8405, 8404

ALL UNDERLINED TEXT ARE LINKS

In Demand Careers

Education Needed	Occupation	Median Salary	Job Growth Over next 10 years	Job Openings Projected over next 10 years
Associates Degree	Chemical Technicians	\$49,820 per year	3% (As fast as average)	1,900
	Microbiologists	\$84,400 per year	3% (As fast as average)	600
Bachelor's Degree or more	Mechanical Engineers	\$90,160 per year	4% (As fast as average)	12,400
	Chemists and Materials Scientists	\$80,680 per year	5% (Faster than average)	4,300
Master's Degree or more	Mathematicians and Statisticians	\$93,290 per year	33% (Much faster than average)	14,900
	Biochemists and Biophysicists	\$94,270 per year	4% (As fast as average)	1,400

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Source-U.S. Bureau of Labor Statistics, 2019

Industrial and Engineering Technology *Transportation, Distribution, & Logistics*



What Is It?

The **Transportation, Distribution and Logistics** cluster uses your knowledge of mechanics, mathematics, and design to work in careers you plan, manage, and move everything from people to company products through a range of transportation services. In this field, you are involved in the logistics of all modes of transportation from road to rail to air to water.



Are you interested in a career in the Transportation, Distribution and Logistics cluster? Talk to your school counselor or teachers about what classes to take and visit HenricoCTE.com for more information.

Do you like to . . .

- Problem solve?
- Work with your hands?
- Plan or schedule?
- Pay attention to detail?
- Drive vehicles or fix them?

Sample Careers

- Automotive Body Repairers
- Automotive Glass Installers and Repairers
- Automotive Service Technicians and Mechanics
- Watercraft Service Attendants
- Aircraft Mechanics and Service Technicians
- Billing and Posting Clerks
- Bus and Truck Mechanics
- Mobile Heavy Equipment Mechanics
- Motorboat Mechanics
- Motorcycle Mechanics
- Recreational Vehicle Service Technicians
- Automotive Glass Installers and Repairers
- Logisticians
- Railroad Conductors and Yardmasters
- Delivery Truck Drivers and Driver/Sales Workers
- Airline and Commercial Pilots

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High School Courses

[Automotive Technology I & II: #8506, #8507 \(ACE\)](#)
[Auto Body Repair I & II: #8676, #8677 \(ACE\)](#)
[Diesel Technologies I & II: #8613, #8614 \(ACE\)](#)
[Motorsports Technology I & II](#)
ALL UNDERLINED TEXT ARE LINKS

In Demand Careers

Education Needed	Occupation	Median Salary	Job Growth Over next 10 years	Job Openings Projected over next 10 years
High School Diploma + Certification	Diesel Service Technicians and Mechanics	\$50,200 per year	3% (As fast as average)	9,600
	Delivery Truck Drivers and Driver/Sales Workers	\$34,340 per year	5% (Faster than average)	75,000
	Delivery Truck Drivers and Driver/Sales Workers	\$32,020 per year	5% (Faster than average)	75,000
	Small Engine Mechanics	\$39,020 per year	6% (As fast as average)	4,900
	Aircraft and Avionics Equipment Mechanics and Technicians	\$64,310 per year	5% (Faster than average)	7,300
Bachelor's Degree or more	Airline and Commercial Pilots	\$130,440 per year	5% (Faster than average)	6,100
	Logisticians	\$76,270 per year	4% (As fast as average)	8,200

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Source-U.S. Bureau of Labor Statistics, 2019

Natural Resources & Agriculture

Agriculture, Food, & Natural Resources



What Is It?

The **Agriculture, Food and Natural Resources** cluster is about using your love of science, the environment or animals to prepare for careers that involve improving the quality and safety of food, cultivating and preserving our natural resources, and caring for animals. Agriculture is Virginia's largest private industry, with an economic impact of \$52 billion each year and providing over 300,000 jobs.



Are you interested in a career in the Agriculture, Food and Natural Resources cluster. Talk to your school counselor or teachers about what classes to take and visit HenricoCTE.com for more information.

Do you like to . . .

- Work with your hands?
- Grow food and plants?
- Problem solve?
- Work mostly outdoors?
- Help people?

Sample Careers

- Ag Engineer
- Farmer
- Ag Lawyer
- Heavy Equipment operator
- Diesel Mechanic
- Small Engine Mechanic
- Golf Course Superintendent
- Greenhouse/Nursery Operator
- Ag Loan Officer
- Food Scientist
- Ag Lobbyist
- Ag Teacher
- Feed/Seed/ Supplies Store Owner/Operator
- Rancher
- Botanist
- Geneticist
- Soil scientist
- Water Specialist
- Range Management
- Wildlife Management
- Fabrication

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High School Courses

Recommended courses for high schools:
[Greenhouse Management: #8035 \(ACE\)](#)
[Landscaping: #8036 \(ACE\)](#)
[Geospatial Technology Honors: #8423A](#)
ALL UNDERLINED TEXT ARE LINKS

In Demand Careers

Education Needed	Occupation	Median Salary	Job Growth Over next 10 years	Job Openings Projected over next 10 years
High School Diploma	Greenhouse Worker	\$24,230	1%	771,000
	Agricultural Workers	\$28,900 per year	1%	9,200
	Equipment Operators	\$30,730		2,730
	Plant and System Operators	\$42,530		3,143
Bachelor's Degree or more	Agricultural and Food Scientists	\$68,830 per year	7%	35,600
	Biological Technicians	\$46,340 per year	5% (Faster than average)	4,300
	Environmental Scientists and Specialists	\$73,230 per year	8% (Much faster than average)	7,100
Masters Degree or more	Agriculture Lawyer	\$126,930 per year	4% (As fast as average)	32,300

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Source-U.S. Bureau of Labor Statistics, 2019



JROTC/Military Science is an elective program offered to high school students.* ***Students who participate in JROTC are not required to join the military after high school, and the program is not a military preparation class.*** Students are introduced to the **Junior Reserve Officer Training Corps, JROTC.** Curriculum, and basic U.S. citizenship rights and responsibilities are established and reinforced. Students learn leadership, history, communication techniques, disciplined study habits, management skills, first aid, drug abuse prevention, map reading, physical fitness, and workplace readiness skills. Military customs and courtesies, proper uniform wear, and personal appearance guidelines are followed within the leadership lab, drill, and military ceremonies. JROTC has been called the largest youth training and development program in the United States.



*Students zoned for a high school that does not offer a JROTC program may be eligible for a variance to enroll in a school that offers one.



Air Force JROTC I/II/III/IV: #7913, #7916, #7918, #7919
 Offered at Deep Run High School. It is based on Air Force requirements and led by active-duty Air Force officers. Training covers everything from leadership studies to combat techniques. The Air Force JROTC program is regulated by the military and participation may improve rank upon enlisting.
ALL UNDERLINED TEXT ARE LINKS



Marine JROTC I/II/III/IV: #7913, #7916, #7918, #7919
 Offered at Hermitage, Highland Springs, and J.R. Tucker High Schools. It is based on Marine Corps requirements and led by active-duty Marine Corps officers. The program can motivate students to learn, foster a disciplined and constructive learning environment, and instill essential skills like time organization, responsibility, goal setting, and teamwork.
ALL UNDERLINED TEXT ARE LINKS



Naval JROTC I/II/III/IV: #7913, #7916, #7918, #7919
 Offered at Henrico and Varina High Schools. It is based on Navy requirements and led by active-duty Navy officers. It introduces students to the meaning of citizenship, the elements of leadership, and the value of scholarship in attaining life goals; promote an awareness of the importance of a healthy lifestyle, including physical fitness, a proper diet, and controlling stress; drug awareness; provide the principles of health and first aid, geography and survival skills and an overview of Naval ships and aircraft. **ALL UNDERLINED TEXT ARE LINKS**

CTE Summer Programs *Summer Building Trades*



The Summer Building Trades Program lets students experience what it means to build a house from ground to roof for 6 weeks during the summer. During this time they can get experience in masonry, electricity, carpentry, plumbing, and HVAC while building an actual house that was started by students from the two Advanced Career Education Centers (ACE) during the regular school year.

Henrico's Career & Technical Education is able to provide students with this opportunity because of the hard work of the Henrico County Vocational/ Technical Education Foundation. The mission of the foundation and our House Building Project is to provide real-life, hands-on experience to students involved in the housing industry and associated programs in Henrico County Public Schools. To find out more about the Summer Building Trades [click here](#).



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CTE Summer Programs *Summer Polytech*



The CTE Summer Polytech program is a 4-week introduction for rising 6th, 7th, 8th, 9th, 10th, 11th, and 12th graders for many of our Advanced Career Education, or ACE Center classes we offer during the school year. Students who are rising 9th through 12th grade who sign up for Summer PolyTech will receive a half-credit upon completion of one of our courses. It is a great opportunity to try out one of our many options offered at our Advanced Career Education Center For more information about Summer Polytech [click here](#).



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Student Leadership Organizations

CTE students can participate in Career and Technical Student Organizations or (CTSOs) that enhance the student experience that connects classrooms to a larger network. Students learn through their student organizations professional and leadership skills, problem-solving, communication skills, as well as teamwork skills essential in today's and tomorrow's careers. [Click here](#) for more information.



Career Ambassadors

The Career Ambassadors Program offers current ACE Center seniors an opportunity to represent and share their experiences with career exploration and our CTE programs to prospective students and community supporters through elementary school Career Fairs, middle school Career Clubs, school visits, and district-wide events. Career Ambassadors provide first-hand connections in the k-12 career experience while promoting CTE options in Henrico.



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Work-Based Learning Experiences

Work-Based Learning (WBL) is comprised of experiences related to students' career interests, based on instructional preparation, and undertaken in partnership with local businesses or organizations. WBL enables students to apply classroom instruction in a real-world work environment. Henrico CTE courses provide students with WBL experiences through Career Awareness, Career Exploration, and Career Preparation.

<p>Learn about work</p> <ul style="list-style-type: none"> Career Fairs Guest Speakers Field Trips Job Shadowing Worksite Tours 	<p>Learning Through Work</p> <ul style="list-style-type: none"> Career Competitions Mentoring Mock Interviews Career Fairs Service Learning Teacher Externships 	<p>Learning For Work</p> <ul style="list-style-type: none"> Apprenticeships Co-Ops Fellowships Internships On Job Training Pre-Apprenticeships
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21st Century Workplace Readiness Skills for the Commonwealth

What are “workplace readiness skills” and why are they important? They are a list of skills and behaviors determined by Virginia employers that are necessary for all students to know so they are able to properly interact with supervisors and co-workers when working in their careers. These skills are sometimes called soft skills but are best described as essential skills and are required as part of a Henrico CTE education.

Personal Qualities and Abilities

1. CREATIVITY AND INNOVATION
2. CRITICAL THINKING AND PROBLEM-SOLVING
3. INITIATIVE AND SELF-DIRECTION
4. INTEGRITY
5. WORK ETHIC

Interpersonal Skills

6. CONFLICT RESOLUTION
7. LISTENING AND SPEAKING
8. RESPECT FOR DIVERSITY
9. CUSTOMER SERVICE ORIENTATION
10. TEAMWORK

Professional Competencies

11. BIG PICTURE THINKING
12. CAREER AND LIFE MANAGEMENT

13. CONTINUOUS LEARNING AND ADAPTABILITY
14. EFFICIENCY AND PRODUCTIVITY
15. INFORMATION LITERACY
16. INFORMATION SECURITY
17. INFORMATION TECHNOLOGY
18. JOB-SPECIFIC TOOLS AND TECHNOLOGIES
19. MATHEMATICS
20. PROFESSIONALISM
21. READING AND WRITING
22. WORKPLACE SAFETY

Workplace Readiness Skills for the Commonwealth was developed by the Virginia Department of Education's Office of Career, Technical, and Adult Education, in cooperation with the University of Virginia's Weldon Cooper Center for Public Service, the Career and Technical Education Consortium of States, and Virginia's CTE Resource Center.

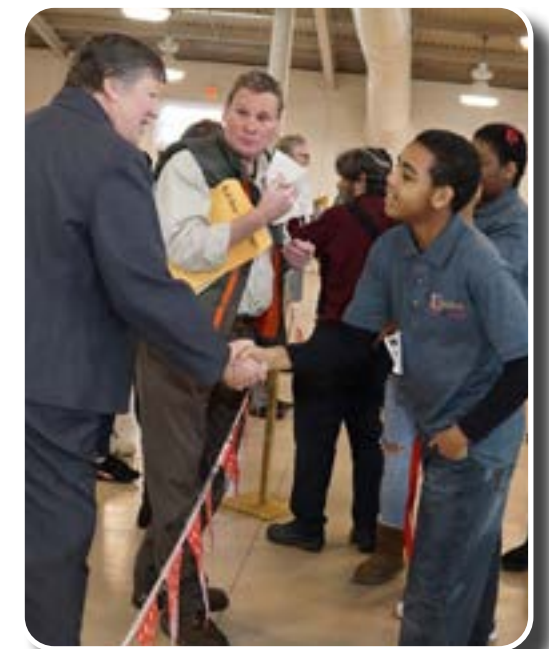


At the Life Ready Expo, students grades 6-12 and their families have the chance to talk with employers from each career cluster about career opportunities and earning potential specific to their company, as well as share information about careers in the industry. Students can make connections and learn about multiple ways to “learn and earn” when taking advantage of employer programs that pay for employees to attend college and receive other training after high school. Attendees can also tour an ACE Center and talk with current seniors about their coursework and career goals. [Click here](#) for more info.





The #LifeReady Career Rodeo offers students the opportunity to showcase their skills in front of various stakeholders, most notably potential employers. During the event, students solve work-based challenges giving businesses a “first look” at student soft skills, as well as their hands-on skill set, potentially leading to student full-time employment. It is through such work-based learning experiences and building of essential soft skills that our students can truly be #lifeready. [Click here](#) for more info.





As part of our belief in every student being Enrolled, Enlisted, and/or Employed, Henrico celebrates students who are entering the workforce directly after graduation. The purpose of the CTE Letter of Intent Signing Day is to recognize these students just as we honor students and athletes who have received accolades for achieving their goal of being accepted into the college of their choice or military service.

Henrico CTE introduced the Letter of Intent Signing Day in 2018. Shortly after our first event, we were recognized by the former host of "Dirty Jobs," Mike Rowe. Mike said, "This is not just a terrific idea, it's a model for every other technical school in the country. Here's hoping others will follow Henrico's lead." Immediately after that, Henrico CTE was featured in live interviews and articles by almost every major media outlet across the country. Since that first event, the Letter of Intent Signing Day has been replicated in 49 states and Canada. Click here for more info. The CTE Signing Day has brought our students, teachers, and many of Virginia's businesses together to fill great paying jobs that require certified skills and, in many cases, continued education.



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Several of our CTE programs have a direct connection with the housing industry through construction crafts. Students in Carpentry, Electricity, Computer Aided Drafting & 3D Animation, Masonry, and HVAC programs are providing an opportunity to apply what they learn in the classroom in a real life setting. They build a house! Through the Henrico County Vocational/Technical Education Foundation's House Building Project, students gain valuable experience that will help them transition from the classroom to a rewarding career in architecture and construction. Since 1987, Henrico CTE students have built 19 houses in Henrico County. Funds derived from the sale of a house are used to ensure the continuation of the project and other associated programs. [Click here](#) for more info.



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Henrico CTE Now podcasts feature business leaders, industry experts, parents, and students focusing on the latest programs, news, and events in the world of career and technical education (CTE). To listen to Henrico CTE Now, you can find us on your favorite podcast venues such as Spotify, Apple, and Google. Like and subscribe so you don't miss an episode. [Click here](#) for more information.



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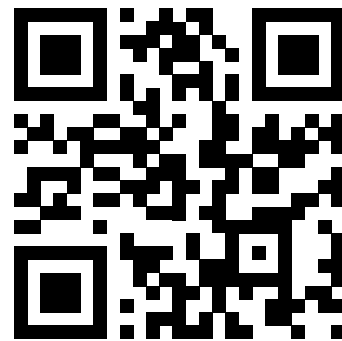
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Talk to your teacher or counselor about Henrico CTE middle and high school courses. Be sure to visit our website, HenricoCTE.com for more information.



For information on applying to an ACE Center [click here.](#)

