

The Henrico County Advanced Career Education (ACE) Centers offer training opportunities in the following areas for the 2016-2017 school year:

**ADVANCED CAREER EDUCATION (ACE) CENTER at HERMITAGE**  
804-756-3020

Air Cond., Refrigeration & Plumbing	Graphic Communications
Automotive Technology	Greenhouse Management
Barbering	Landscaping
CAD - Computer-Aided Drafting & 3D Animation	Legal Systems Administration
Cosmetology	Medical Systems Administration
Criminal Justice	Nurse Aide
Culinary Arts	Practical Nursing I
Diesel Technologies	Precision Machining Technology
Electricity & Cabling	Sports Medicine
Emergency Medical Technician	Veterinary Assistant
	Web Development/Programming

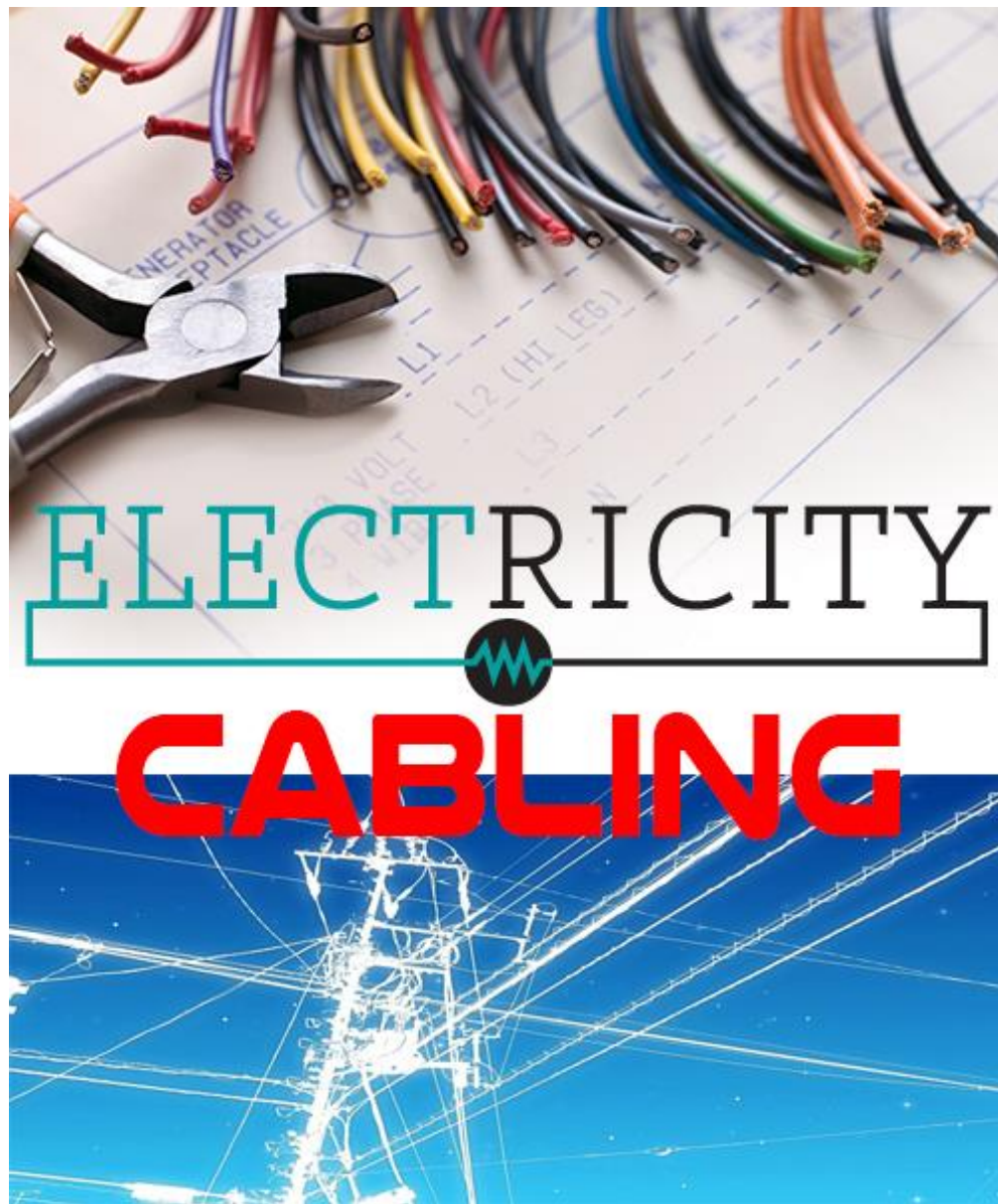
**ADVANCED CAREER EDUCATION (ACE) CENTER AT HIGHLAND SPRINGS**  
804- 328-4075

Auto Body Repair	Electricity & Cabling
Automotive Technology	High Tech Academy
Carpentry	Tourism Marketing and Sales
Computer Systems Technology	Masonry
Cosmetology	Nurse Aide
Criminal Justice	Pharmacy Technician
Early Childhood Education & Services	Practical Nursing I
	Radio Broadcasting & Journalism

Henrico County Public Schools does not discriminate on the basis of race, color, national origin, sex, religion, age or disability in employment or provision of programs, services, or activities. Reasonable accommodation will be provided upon request for individuals with disabilities.

For additional information, please contact a counselor in your school or write or call:

Career and Technical Education Department  
Henrico County Public Schools  
3751-C Nine Mile Road, Henrico, VA 23223-0420  
(804) 781-1810  
HENRICOCTE.COM



**ELECTRICITY & CABLING I****Course No. 8533****Elective****36 weeks - 3 credits****Prerequisite: Recommendation of Counselor**

Electricity & Cabling I is designed to prepare students for entry into electricity-related occupations. Basic principles of electricity are stressed in the first year, with emphasis on residential wiring. Fundamentals are learned through the use of materials, tools and techniques used in installation, maintenance, and repair of electrical equipment. Students may spend time at actual construction sites. NOTE: Students can earn one year of a four-year state/national approved apprenticeship program through this two-year class. Students will have the opportunity to earn the 10-hour OSHA certification, as well as the National Center for Construction Education and Research (NCCER) certification. Students who qualify may be placed with an electrical contractor for summer work.

**ELECTRICITY & CABLING II****Course No. 8534****Elective****36 weeks - 3 credits****Prerequisite: Electricity & Cabling I**

The second year Electricity & Cabling student continues to study direct and alternating current (AC/DC), industrial electricity and motors, as related to practical laboratory work in home and industrial wiring. All projects include applied math, theory and fundamentals in the field of electricity. Students may participate in the construction of a house. With approval and recommendation of the teacher, students may spend time in actual work experiences during the second semester. NOTE: Students can earn one year of a four-year state/national approved apprenticeship program through this two-year class.

**Major Units of Study**

- |                                  |   |
|----------------------------------|---|
| 1) Basic electrical theory       | 7) Basic motor controls                 |
| 2) Methods of wiring             | 8) Electric motors operation            |
| 3) Appliance repair              | 9) Electrical codes                     |
| 4) Residential wiring            | 10) Various applications of electricity |
| 5) Commercial wiring             | 11) Practical work experience           |
| 6) Residential blueprint reading | 12) SkillsUSA youth organization        |

**Recommended Background Courses**

A good background in mathematics would be of great value to a student entering this field. Classes in technical drawing and technology education are helpful. The student should be able to work with his hands.

**Desirable Aptitudes**

Persons interested in this field should be in good health, have good manual dexterity, good eyesight and good communication skills. Good hand-eye coordination and following instructions are vital, as is the ability to manipulate small tools and electrical equipment.

**Employment Opportunities**

Electricians are employed in every city, town, and community throughout the country and the world. Continued growth is expected and there is always a demand for electricians.

**Post-secondary**

Skilled and experienced electrical workers make more than \$30/hr. The field of electricity is one of the highest paid areas in the construction business. Salaries may vary according to specialty, experience, location of employment, and ability.

Students who complete this program are prime applicants for the Electrical Apprenticeship Programs in the Richmond area. In addition, the apprenticeship credit enhances any college engineering degree. Please feel free to call to talk with the instructor or schedule a visit.



*ACE Center at Hermitage serves students from:  
Deep Run, Freeman, Glen Allen, Godwin, Hermitage,  
and Tucker High Schools*

*ACE Center at Highland Springs serves students from:  
Henrico, Highland Springs, and Varina High Schools*