



PATHWAYS TO COLLEGE & CAREER READINESS

Career Clusters help students investigate careers and design their courses of study to advance their career goals. For this reason, Virginia has adopted the nationally accepted structure of career clusters, career pathways and sample career specialties or occupations.

A Career Cluster is a grouping of occupations and broad industries based on commonalities. Within each career cluster, there are multiple career pathways that represent a common set of skills and knowledge, both academic and technical, necessary to pursue a full range of career opportunities within that pathway – ranging from entry level to management, including technical and professional career specialties. Based on the skills sets taught, all CTE courses are aligned with one or more career clusters and career pathways.

VIRGINIA'S 16 CAREER CLUSTERS

- [Agriculture, Food & Natural Resources](#)
 - [Architecture & Construction](#)
 - [Arts, A/V Technology & Communications](#)
 - [Business Management & Administration](#)
 - [Education & Training](#)
 - [Finance](#)
 - [Government & Public Administration](#)
 - [Health Science](#)
 - [Hospitality & Tourism](#)
 - [Human Services](#)
 - [Information Technology](#)
 - [Law, Public Safety, Corrections & Security](#)
 - [Manufacturing](#)
 - [Marketing](#)
 - [Science, Technology, Engineering & Mathematics](#)
 - [Transportation, Distribution & Logistics](#)
-



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.

Employment of computer and information research scientists is expected to increase. The demand for new and better technology will continue to grow, which will increase the employment of such workers. These professionals also will be needed to combat cyber-attacks, which are posing a larger threat to society. There should be a greater need for database administrators in the next decade. As companies store more data, these workers will be needed to manage the data so that analysts and stakeholders can understand it. Software developers also should see good job prospects. Mobile devices and tablets are becoming more popular, so software developers are increasingly needed to develop and upgrade mobile applications. Overall, more consumer products use software, which will drive the need for developers.

Source: http://www.doe.virginia.gov/instruction/career_technical/career_clusters/