

Virginia Career and Technical Education: Health Science

Virginia's 16 Career clusters and career assessments help students investigate careers and design their plan of study to advance their career goals. Within each career cluster, there are multiple career pathways that represent a common set of skills and knowledge, including academic, technical, and career readiness skills that lead to credentials necessary to pursue a full range of career opportunities from entry level to management, including technical and professional career specialties. CTE actively partners with business and industry to design and provide high quality, dynamic programs to meet current, emerging, and projected labor market needs. Relevant work-based learning opportunities and leadership development offered through career and technical student organizations are incorporated into the academic and career plan.

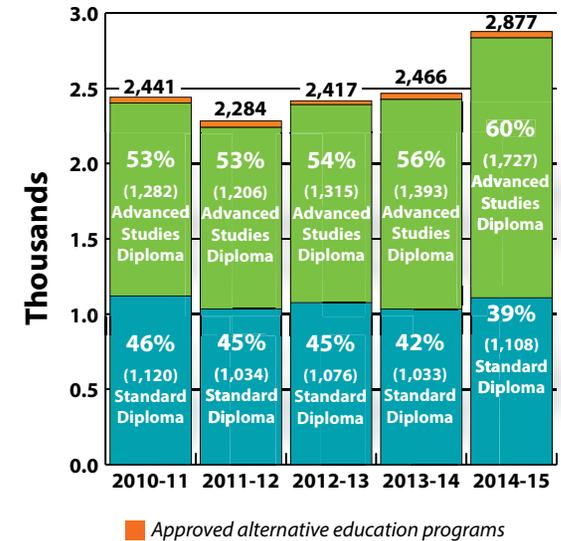
A CTE completer is a student who has met the requirements for a CTE concentration and all requirements for high school graduation, or an approved alternative education program. A concentration is a coherent sequence of state-approved courses. Students may take additional CTE courses that will enhance their career pathway goals. Completion of certain skill sets and coursework enables students to participate in Board-approved external examinations that test essential employability and technical skills. Students who earn these credentials are eligible to earn verified credit towards graduation requirements.

Beginning in 2013-2014, first time ninth grade students are required to earn a Board-approved career and technical education credential to graduate with a Standard Diploma.

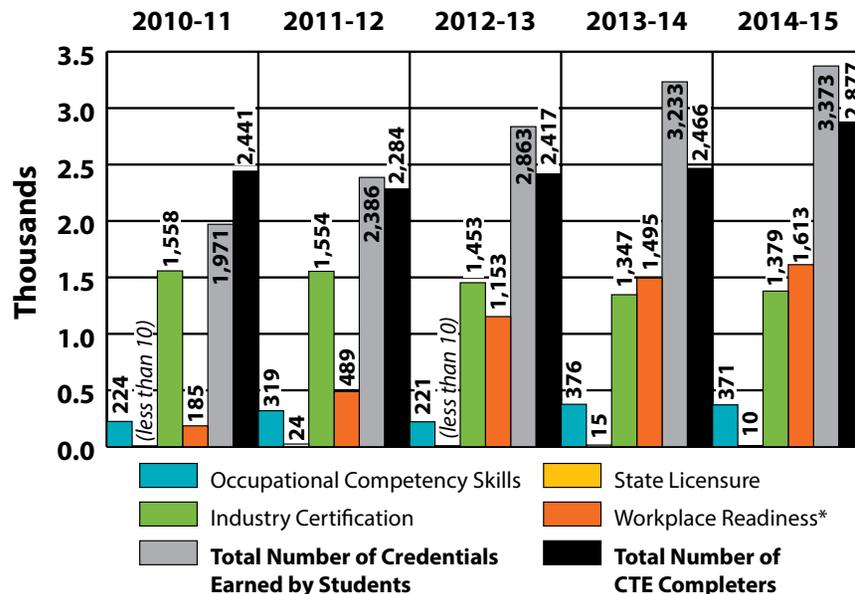
Types of credentials include:

- **Full Industry Certification** – from a recognized industry, trade, or professional association;
- **Pathway Industry Certification** – specific stackable credentials from a recognized industry that lead to a full industry certification;
- **Occupational Competency Skills Assessment** – a national standardized assessment of skills/knowledge in a specific career and/or technical area;
- **State License** – required for entry into a specific occupation; and
- **Workplace Readiness Skills for the Commonwealth Certification** - for essential employability skills recognized by Virginia employers.

Completers Graduated with Standard and Advanced Studies Diplomas



Credentials Earned by CTE Students



NOTE: Completers may participate in one or more Board-approved credentialing test(s). Not all completers participate in the credentialing tests. There are age restrictions set by certain credentialing entities which would prohibit the student from testing until after high school. The cost of credentialing tests ranges from \$10 to \$300 per test.

* Prior to 2010-11, Workplace Readiness Skills assessments were included in the Industry Certification category.

Source: Virginia Department of Education

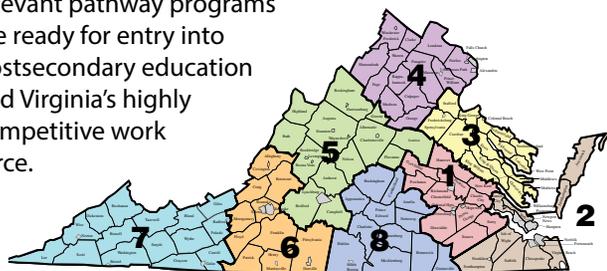
Virginia Career and Technical Education: Health Science

continued

The **Health Science Career Cluster** prepares you to help keep people healthy and treat those who are not. Individuals work directly with people by conducting research on diseases and other important health information. This field allows you to work in diverse environments such as hospitals, medical and dental offices or labs. As the medical and health science fields continue to advance with technology, new job opportunities will emerge. Many careers will require high-skilled applicants with experience in healthcare and business management. Also, an aging population and increased competition will increase demand for new and improved medications and will create more jobs.

Virginia high school students learn the essential academic skills that are critical for all careers and the foundational skills needed for careers in Health Science. They begin to specialize in a field of interest as they complete a coherent sequence of courses within a pathway.

Secondary students who complete these rigorous and relevant pathway programs are ready for entry into postsecondary education and Virginia's highly competitive work force.



Selected Statewide Occupational Projections

Selected Occupation	2014 Median Wage ¹	2022 Projected Employment ²	Predominant Education Level ³
Registered Nurses	\$62,610	66,990	Bachelor's or more
Licensed Practical Nurses	\$39,490	27,715	Some college/Associate Degree
Home Health Aides	\$21,090	15,248	High School
Medical Assistants	\$30,300	14,625	Some college/Associate Degree & Training/certification
Dental Assistants	\$35,700	11,612	Some college/Associate Degree
Pharmacy Technicians	\$27,620	10,629	Some college/Associate Degree & Training/certification
Pharmacists	\$123,170	8,242	Bachelor's or more & Training/certification
Medical and Health Services Managers	\$92,520	8,187	Bachelor's or more
Physical Therapists	\$83,720	7,593	Bachelor's or more
EMTs and Paramedics	\$30,640	6,564	Some college/Associate Degree
Dental Hygienists	\$80,780	6,356	Some college/Associate Degree
Medical Laboratory Technicians	\$36,990	5,260	Bachelor's or more
Medical Laboratory Technologists	\$55,420	4,952	Bachelor's or more
Medical Records Technicians	\$35,720	4,488	Some college/Associate Degree
Dentists	\$139,580	4,433	Bachelor's or more & Training/certification
Psychiatric Technicians	\$26,200	4,318	Some college/Associate Degree
Speech-Language Pathologists	\$74,220	3,594	Bachelor's or more
Occupational Therapists	\$85,200	3,292	Bachelor's or more
Physician Assistants	\$87,920	3,097	Bachelor's or more & Training/certification
Physical Therapist Assistants	\$54,530	2,945	Some college/Associate Degree
Respiratory Therapists	\$57,500	2,538	Bachelor's or more

¹ Wage data from the US Bureau of Labor Statistics Occupational Employment Statistics Program; ² Estimates from Virginia Labor Market Information, Occupational Projections (long-term) for Multiple Occupations in Virginia in 2012-2022. Retrieved via <https://data.virginialmi.com>; ³ Predominant level of education and training information created by Trailblazers, based on US BLS occupational education and training data

Source: Virginia Employment Commission, Virginia Occupational Employment Projections 2013-2022

Health Science 2014-2015 Enrollments**

Pathways	Region 1	Region 2	Region 3	Region 4	Region 5	Region 6	Region 7	Region 8
Biotechnology Research and Development	559	498	175	1,647	342	529	210	98
Diagnostics Services	1,925	3,102	1,082	3,645	1,443	2,127	543	555
Health Informatics	1,247	1,097	863	2,970	841	1,358	450	524
Support Services	1,063	971	302	2,227	522	1,261	313	283
Therapeutic Services	2,991	2,967	1,376	4,904	2,147	2,580	1,111	965

** NOTE: Duplicated Pathway student enrollments Source: Virginia Department of Education