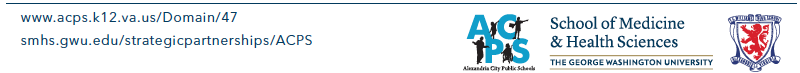
Governor’s Health Sciences Academy

at

T. C. Williams High School



https://www.acps.k12.va.us/healthsciences

smhs.gwu.edu/strategicpartnerships/ACPS

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# PROGRAM OVERVIEW

## Introduction

The proposed Governor’s Health Sciences Academy will be a strategic partnership between Alexandria City Public Schools (ACPS) and the George Washington University School of Medicine and Health Sciences. The Academy will be located at T. C. Williams High School in Alexandria, Virginia. There are a total of seven proposed plans of study for the Academy:

* Surgical
* Nursing
* Biomedical Informatics
* Sports Medicine
* Emergency Medical Services (EMS)
* Pharmacy
* Medical Laboratory Sciences (MLS)

These proposed plans of study were selected with consideration of national workforce growth trends, regional workforce shortages, student interest survey results, existing high school resources, and addressing nontraditional student populations in high-demand health professional careers. Each of the five pathways within the Health Science Career Cluster—Therapeutic Services, Diagnostic Services, Health Informatics, Support Services, and Biotechnology Research and Development—will be addressed through these plans of study. Resources are available for the Therapeutic and Health Informatics Pathways to begin in the fall of 2018-2019. The remaining proposed plans of study will be implemented within the following three years. Through collaboration with the George Washington University, students will have the unique ability to receive more than 20 college credits from the School of Medicine and Health Sciences.

Students who complete the program with an overall GPA of 2.75 or higher will be guaranteed admission to the George Washington University School of Medicine and Health Sciences.

The proposed plans of study lead to industry certifications and transfer pathway credits to associate and/or bachelor’s degrees. This is accomplished through a combination of existing dual-enrollment courses through Northern Virginia Community College (NVCC), advanced placement (AP) courses at T. C. Williams High School, and the new dual-enrolled health science courses offered by the George Washington University. *(Appendix A – Dual Enrollment and Guaranteed Admission Agreement between the George Washington University School of Medicine and Health Sciences and The Alexandria City School Board DBA Alexandria City Public Schools; Appendix B – Dual Enrollment Contract between Northern Virginia Community College and Alexandria City Public Schools)*

Students selected to participate in the Academy will be required to complete a Summer Bridge program to prepare them to take a college-level course. Through this program, students will apply to the George Washington University School of Medicine and Health Sciences andregister for their first class, as well as work on writing and study skills, and conduct career research. Students who choose to take courses as part of the general studies agreement with Northern Virginia Community College (NVCC) will be required to apply and meet NVCC’s course admissions requirements. Taking dual enrollment and/or AP core academic courses will be encouraged, but not required for Academy students.

Earning college credits in the field of health and medical sciences during high school will enable students to graduate college and enter the regional workforce sooner. This will significantly reduce the time and money needed to graduate from college and lead to careers that are critically needed in the region and the nation.

This academy will be the first of the nine Governor’s Health Sciences Academies across the Commonwealth to operate as a public-private model offering specialized health and medical sciences career plans of study. T. C. Williams High School, the largest high school in the Commonwealth, has a diverse student population to support enrollment in this academy. This provides an ideal setting for a public-private partnership and a unique opportunity to successfully track longitudinal outcomes.

## Description of Site Location of the Program

T. C. Williams High School currently serves a student population of nearly 4,000 students within a setting comprised of two major campuses as well as a satellite center (offering on-line course completion options) and an alternative campus (i.e., Chance for Change). The school serves a highly-diverse student population, including 886 black, 1,277 Hispanic students, 868 English Learners (EL), 286 students with disabilities, and 1,820 free and reduced meals (FARM) students. Additionally, statistics from the ACPS Department of Accountability report (September 2015, P. v) reinforce the value and power of a college preparation program like this academy.

In 2014, 60 percent of ACPS high school graduates enrolled in post-secondary degree-granting institutions. From 2007 to 2014, between 30 and 43 percent of ACPS graduates enrolled in four-year institutions. Between 18 and 23 percent of ACPS graduates enrolled in two-year institutions. Gaps in 2014 post-secondary enrollment align with achievement gaps seen in K-12 education with Hispanic (45 percent) and Black/African American (57 percent) students enrolling at a lesser rate compared to White (75 percent) students. Additionally, post-secondary enrollment rates were between 8 and 12 percentage points lower for students in the FARM program, between 19 and 31 percentage points lower for special education students, and between 8 and 36 percentage points lower for EL students. Furthermore, the majority of these students represent first-generation post-secondary education participants.

The complexity of the T. C. Williams High School physical plant configuration, the academic achievement of these reporting groups of students, and the universal challenges encountered by first-generation learners all reinforce the powerful need for a much more personalized approach to the college, university, and career preparation process.

# RATIONALE

The proposed plans of study expand options for students in the fast growing health occupations. To provide opportunities for students, the Academy has developed health science literacy, critical knowledge, skills, and credentials in the five Health Science Career Pathways: Therapeutic Services, Diagnostic Services, Health Informatics, Support Services, and Biotechnology Research and Development. The intent of the Academy is to prepare the next generation of healthcare career-seekers for high-demand, high-wage, and high-skills health careers locally in Alexandria, regionally within the Commonwealth, and nationally.

The Academy will partner and will maintain strong connections within the school division, postsecondary institutions, healthcare institutions, local and regional governments, economic development agencies, and business and industry. The curriculum model has been built with best practices and collaboration with academic institutions, subject matter experts, employers, and industry partners. The purpose is to provide high-quality, dynamic health science plans of study which offer work-based instruction in collaboration with industry partners, and include a combination of clinical experiences, internships, service learning, mentorships, and job shadowing.

Virginia Labor Market Information indicates positive long-term growth in the healthcare industry. Healthcare Practitioners and Technical Occupations are projected to increase by 18.42% overall in the next six years. By 2024, increases in specific healthcare occupations include Athletic Trainers-22.6 percent, Emergency Medical Technicians-28.12 percent, Medical and Clinical Laboratory Technicians-24.03 percent, Nurse Practicioners-43.24 percent, Pharmacy Technicians-12.25 percent, Physical Therapists-35.04 percent, and Surgical Technologists-15.71 percent (https://data.virginialmi.com).

The United States Department of Labor, Bureau of Labor Statistics (BLS) estimates 18 percent growth in healthcare careers through 2026, which is much faster than the average for all occupations, adding 2.3 million new jobs in the United States. The projected growth in the healthcare industry has been increasing steadily. This is partly due to an aging population and Generation X (born between 1965-1984) having children. As a result, healthcare professionals will become more in-demand than ever. Each healthcare plan of study in the Academy will offer many career opportunities with varying levels of education and experience required.

The following occupational employment statistics from BLS, are calculated with data collected from employers in all industry sectors in the Washington-Arlington-Alexandria, DC-VA-MD-WV Metropolitan Division.

**May 2016 Metropolitan & Nonmetropolitan Area Occupation Employment and Wage Estimates:**

Washington-Arlington-Alexandria, DC-VA-MD-WV Metropolitan Division

Table to show May 2016 Metropolitan & Nonmetropolitan Area Occupation Employment and Wage Estimates:
Washington-Arlington-Alexandria, DC-VA-MD-WV Metropolitan Division


May 2016 Metropolitan & Nonmetropolitan Area Occupation Employment and Wage Estimates:
Washington-Arlington-Alexandria, DC-VA-MD-WV Metropolitan Division


In addition, results from a 2014 study conducted for NOVA Health Force, which was built on a 2005 study by PricewaterhouseCoopers, shows that the growth and need for healthcare workers in Northern Virginia is nearly twice the national average ([Link: http://www.myskillsource.org/pdf/The-State-of-the-Health-Care-Workforce-in-Northern-Virginia\_0327.pdf](http://www.myskillsource.org/pdf/The-State-of-the-Health-Care-Workforce-in-Northern-Virginia_0327.pdf) and [Link: http://www.nvcc.edu/nvhealthforce/images/Final\_PWC\_Study.pdf](http://www.nvcc.edu/nvhealthforce/images/Final_PWC_Study.pdf)). Currently healthcare makes up about seven percent of the local workforce, employing over 100,000 people annually. By 2022, the employment need is expected to be over 140,000, showing a 30 percent industry growth. Hospitals are adding capacity and outpatient services are growing, however, the number of current graduates in the healthcare field is not meeting the regional demand. The areas of most critical need from this study are in the following health science fields:

**Allied Health**

Biomedical Engineer

(in lieu of Biomedical Equipment Technician)

Emergency Medical Technician

Medical Assistant

Medical and Health

Services Manager

Medical Equipment Repairer (in lieu of Biomedical Equipment Technician)

Pharmacist

Pharmacy Technician

Radiation Therapist (in lieu of Radiation Oncology Therapist)

Respiratory Therapist

Respiratory Therapy Technician

Surgical Technologist

**Dental**

Dental Assistant (including Certified DA I & II)

Dental Hygienist

Dental Laboratory Technician**Diagnostic and Laboratory**

Diagnostic Medical Sonographer

(in lieu of Ultrasonographer)

Medical and Clinical Lab Technologist

Medical and Clinical Lab Technician

Nuclear Medicine Technologist

(in lieu of Radiation Technologist) Phlebotomist

Radiologic Technologists and Technicians (in lieu of CT Scanning Technologist and MRI Technologist)

**DirectCare**

Certified Nursing Assistant

Home Health Aide

**Health Information Management and**

**Technology**

Medical Records and Health Information Technicians (in lieu of Clinical Data Coder, Registered Health Information Technician,

Registered Health Information Administrator, Health Data Analyst)

**Nursing**

Licensed Practical Nurse

Nurse Practitioner

Registered Nurse

**Rehabilitation & Therapy**

Audiologist

Chiropractor

Massage Therapist

Occupational Therapist

Occupational Therapist Assistant

Occupational Therapist Aide

Orthotists and Prosthetists

(in lieu of Orthotic Technicians or

Prosthetic Technicians)

Physical Therapist

Physical Therapist Assistant

Speech/Language Pathologist

**Social and Human Services**

Child, Family, School Social Worker

Social and Human Service Assistant

Social Worker, Other

# PROGRAM DESCRIPTION

## Program Goals

The proposed goals for Governor’s Health Sciences Academy at T. C. Williams High School are as follows:

* Provide students with health science literacy and other critical knowledge, skills, and credentials, as well as a comprehensive career readiness curriculum, which will prepare students for high-demand, high-wage, and high-skills health science careers locally in Alexandria, regionally within the Commonwealth of Virginia, and nationally.
* Provide rigorous academic curriculum which is centered on hands-on, collaborative learning and laboratory experiences to better prepare students for rapidly changing, technologically enhanced, health science fields.
* Build on the strength of existing career and technical education (CTE) program areas within the high school and provide opportunities outlined in the seven plans of study for each of the career pathways for Therapeutic Services, Diagnostic Services, Health Informatics, Support Services, and Biotechnology Research and Development.

## Measurable Objectives

Comparative data will be based on the class of 2018 and the first Academy graduating class of 2022. For growth within the Academy, baseline data will be collected during the 2018-2019 school year with the first class. The following objectives for the Academy will be measured:

* Increase the number of students receiving a B or better in Academy health science courses by 10 percent
* Increase the number of Academy students taking AP and dual enrollment academic courses by 15 percent
* Increase the number students involved in work-based learning experiences with local businesses by 20 percent
* Increase high school graduation rates for Academy students by 5 percent
* Reduce dropout rates for Academy students by 5 percent
* Increase enrollment and retention in postsecondary education for Academy students by 10 percent
* Increase the number of students graduating with an Advanced Diploma by 5 percent
* Reduce the number of Academy students requiring remediation in college by 10 percent
* Increase the number of industry certifications awarded to Academy students by 20 percent
* Increase the number of Academy graduates employed in high-wage, high-skilled careers by 10 percent

## Location

The Governor’s Health Sciences Academy will be located at T. C. Williams High School in Alexandria, the largest high school in Virginia, with nearly 4,000 students enrolled in grades 9-12 across two campuses. The Minnie Howard campus is the ninth grade student center, and the King Street campus is for students in grades 10-12.

## Students

The Academy will admit up to 150 ninth-grade students using an application process. Each year, up to an additional 150 students will be admitted as ninth grade students. Once fully operational, the Academy will enroll up to 600 students across all four grade levels. Enrollment in advanced level courses will be based on student choice and seat availability. Students who move into the school division after ninth grade will be admitted through an application process depending on availability. Students not participating in the Governor’s Health Sciences Academy may enroll in the health science courses if seats are available.

## Curriculum Design and Instructional Delivery

The program is designed so students can take their core academic courses at the level they are most comfortable and which meet their individual career and educational goals. Students will attend T. C. Williams High School all day and the Academy courses will be electives in their schedule. The Academy-enrolled students will dual enroll their health science courses with the George Washington University School of Medicine and Health Sciences. Students could potentially earn over 20 credits depending on the plan of study they choose to follow. The courses will be taught at T. C. Williams High School by ACPS instructors who are hired as adjunct faculty and meet the university’s hiring requirements. In addition to college credits earned through Academy courses, students will be able to earn additional college credits by taking existing dual enrollment and Advanced Placement (AP) for their core classes.

All Academy courses, as well as the Economics and Personal Finance course, will teach workplace readiness skills to help prepare students for entry into the workforce. *(Appendix C - Workplace Readiness Skills for the Commonwealth)*

The following sample schedule shows the possible college credits for a student intending to graduate with an Advanced Diploma.

| Year 1-Grade 9: 2018-2019 | | | |
| --- | --- | --- | --- |
| Subject | Course | Credits | |
|  |  | High School | College\* |
| English | English 9 or English 9 Honors | 1 | 0 |
| Math | Algebra I, Geometry, Algebra II | 1 | 0 |
| Science | Biology, Biology Honors | 1 | 0 |
| Social Studies | World History I, World History Honors, AP Human Geography\* | 1 | 3-6 |
| World Languages | Level I-III of any language offered | 1 | 0 |
| Physical Education (PE) | 9th Grade PE (some students may take in summer or online to open an elective) | 1 | 0 |
| HMS Course\* | Introduction to Health and Medical Sciences | 1 | 4 |
|  | Year Total Credits | 7 | 4-10 |

| Year 2-Grade 10: 2019-2020 | | | |
| --- | --- | --- | --- |
| Subject | Course | Credits | |
|  |  | High School | College\* |
| English | English 10 or English 10 Honors | 1 | 0 |
| Math | Geometry, Algebra II, Pre-Calculus | 1 | 0 |
| Science | Chemistry, Chemistry Honors | 1 | 0 |
| Social Studies | World History II, AP World History\* | 1 | 3-6 |
| World Languages | Level II-IV of any language offered | 1 | 0 |
| Physical Education (PE) | 10th Grade PE (some students may take in summer or online to open an elective) | 1 | 0 |
| HMS Courses\* | Medical Terminology with Anatomy and Physiology | 1 | 6 |
|  | Year Total Credits | 7 | 3-12 |

| Year 3-Grade 11: 2020-2021 | | | |
| --- | --- | --- | --- |
| Subject | Course | Credits | |
|  |  | High School | College\* |
| English | English 11, English 11 Honors, DE College Composition 11\*, AP Language\* | 1 | 3-6 |
| Math | Algebra II, Pre-Calculus, AP Calculus\*, Probability and Statistics, AP Probability & Statistics\* | 1 | 3-10 |
| Science | Third Science, possible AP Science\* | 1 | 3-8 |
| Social Studies | US History, US History Honors, DE US History\*, AP US History\* | 1 | 3-6 |
| World Languages | Level III-IV, or AP\* of any language offered | 1 | 3-6 |
| Economics and Personal Finance | Economics and Personal Finance, or AP Micro or Macro Economics\* and Online Personal Finance (some students may take in summer or online to open an elective) | 1 | 3-6 |
| HMS Courses\* | *Emergency Medical Technician I, Heath Informatics, Medical Laboratory Technology I, Nurse Aide I, Pharmacy Technician I, Sports Medicine I, Sterile Processing Technician* | 1-2 | 2-4 |
|  | Year Total Credits | 7-8 | 2-46 |

| Year 4-Grade 12: 2021-2022 | | | |
| --- | --- | --- | --- |
| Subject | Course | Credits | |
|  |  | High School | College\* |
| English | English 12, English 12 Honors, DE College Composition 12\*, DE World Literature\*, AP Language\* | 1 | 3-6 |
| Math | Pre-Calculus, AP Calculus\*, Probability and Statistics, AP Probability and Statistics\*, DE Differential Equations\*, DE Calculus with Analytic Geometry\* | 1 | 3-10 |
| Science | Advanced Science Course, possible AP\* | 1 | 3-8 |
| Social Studies | Government, Government Honors, AP Government\* | 1 | 3-6 |
| World Languages | Level IV, AP\* of language offered if still need credits | 1 | 3-6 |
| General Elective | General Elective if needed in schedule, or AP Science Lab | 0-1 | 0 |
| HMS Course\* | *Emergency Medical Technician II, Biotechnology Foundations in Health and Medical Sciences, Medical Laboratory Technology II, Pharmacy Technician II, Sports Medicine II, Nurse Aide II, Surgical Technologist I* | 1-2 | 2-4 |
|  | Year Total Credits | 7-8 | 2-40 |
|  | Four Year Grand Total | 28-31 | 1-108 |

-Courses in italics will be new courses offered for the first time during that designated year.

\*Indicates courses offering college credit.

## Course Sequence

Students will begin the course sequence during their ninth grade year at the T. C. Williams High School Minnie Howard campus, and continue for the next three years at the T. C. Williams High School King Street campus. Students must maintain a C or better in their Academy courses to continue in the program. Each Academy plan of study offers courses that are linked to multiple pathways within the Health Science Career Cluster. The following plans of study course sequences show the health course(s) students would take each year in the Academy. Plans of study for each pathway are found in *Appendix D - Proposed Plans of Study (Surgical, Nursing, Biomedical Informatics, Sports Medicine, Emergency Medical Services, Pharmacy, and Medical Laboratory Sciences).*

**Plans of Study Course Sequences**

| **Plan of Study** | **Year 1**  **9th Grade** | **Year II**  **10th Grade** | **Year III**  **11th Grade** | **Year IV**  **12th Grade** | **Possible Degrees** | **VDOE Career Cluster**  **Pathway** |
| --- | --- | --- | --- | --- | --- | --- |
| **Surgical** | Introduction to Health and Medical Sciences | Medical Terminology with Anatomy and Physiology | Sterile Processing  Technician | Surgical Technologist I  (3 credits) | Surgical Technology, A.A.S  Health Sciences, B.S. | Therapeutic |
| **Nursing** | Nurse Aide I | Nurse Aide II  (2 credits) | Nursing, A.A.S  Health Sciences, B.S. | Therapeutic |
| **Biomedical Informatics** | Health Informatics | Biotechnology Foundations in Health and Medical Sciences | Health Information Management, A.A.S  Medical Informatics, B.S. | Health Informatics |
| **Sports Medicine** | Sports Medicine I | Sports Medicine II | Physical Therapy A.A.S.  Health Sciences, B.S. | Diagnostic |
| **Emergency Medical Services** | Emergency Medical Technician I  (2 credits) | Emergency Medical Technician II  (2 credits) | Emergency Medical Services, A.A.S  Emergency Medical Services, B.S. | Therapeutic |
| **Pharmacy** | Pharmacy Technician I | Pharmacy Technician II  (2 credits) | Certificate of Pharmacy Technology  Health Sciences, B.S. | Support Services |
| **Medical Laboratory Sciences** | Medical Laboratory Technology I | Medical Laboratory Technology II | Medical Lab Tech, A.A.S  Medical Laboratory Sciences, B.S. | Biomedical Research & Development |

All of the information for the Health Science Career Cluster and Pathways is based on information found at the CTE Resource Center ([Link: www.cteresource.org/apg/clusters/health-science](http://www.cteresource.org/apg/clusters/health-science)).

## Regional Workforce Demand for Pathways

A coalition of business, academic, and community leaders joined together to create the Northern Virginia Health Care Workforce Alliance ([Link: www.NOVAHealthforce.com](http://www.novahealthforce.com/)). This coalition was the force behind regional employment studies referenced previously and worked to address the healthcare shortage in Northern Virginia ([Link: http://www.nvcc.edu/nvhealthforce/images/Final\_PWC\_Study.pdf](http://www.nvcc.edu/nvhealthforce/images/Final_PWC_Study.pdf)).

In Northern Virginia, the healthcare industry comprises over seven percent of the regional workforce, employs over 1.3 million people, and creates over $45 billion in wages. Currently, over two million people live in the Northern Virginia area, and the population is expected to grow by 33 percent by 2020, thus adding over 600,000 new residents. In addition to the growth in the general population, there is a growing population of residents over 65 years old. Individuals in this advanced age group tend to need more medical services and often require longer medical stays. Over 89 percent of the population in Northern Virginia is insured. Individuals with insurance take advantage of medical services at a higher rate than those who do not have insurance. The region is experiencing shortages in areas related to the proposed pathways.

Pathway 1: Therapeutic Services

The Surgical, Nursing, and Emergency Medical Services plans of study are specifically linked to the Therapeutic Services pathway. All of the following courses fit into the pathway and all offer at least one industry certification.

* Emergency Medical Technician I 8333
* Emergency Medical Technician II 8334
* Introduction to Health & Medical Sciences 8302
* Medical Laboratory Technology I 8377
* Medical Laboratory Technology II 8378
* Medical Terminology 8383
* Nurse Aide I 8360
* Nurse Aide II 8362
* Pharmacy Technician I 8305
* Pharmacy Technician II 8306
* Sports Medicine I 7660
* Sports Medicine II 7662
* Sterile Processing Technician 8367
* Surgical Technologist I 8351

The Metropolitan employment data cited earlier shows that the region employs nearly 40,000 individuals in nursing-related fields. Nearly 1,000 surgical technologists and over 5,000 surgeons are employed in Northern Virginia. The region employs nearly 4,000 emergency responders and paramedics as well. The PricewaterhouseCoopers employment study shows there is a demand for the following in the Northern Virginia Region: Registered Nurses-10.3 percent, Licensed Practical Nurses-26 percent, Nurse Aides-9.1 percent, Nurse Mangers-6.7 percent, Surgical Technologists-13.5 percent, and Emergency Medical Technicians-2.2 percent.

Pathway 2: Diagnostic Services

The Sports Medicine plan of study is specifically linked to the Diagnostic Services pathway. All of the following courses are listed under this pathway and offer at least one industry certification.

* Biotechnology Foundations in HMS 8344
* Introduction to Health and Medical
* Sciences 8302
* Medical Laboratory Technology I 8377
* Medical Laboratory Technology II 8378
* Medical Terminology 8383
* Sports Medicine I 7660
* Sports Medicine II 7662
* Sterile Processing Technician 8367

The Metropolitan employment data cited earlier shows that the region employs over 4,000 people in the areas of Physical Therapists, Exercise Physiologists, and Athletic Trainers. The PricewaterhouseCoopers employment study shows there is a demand for the following in the Northern Virginia region: Physical Therapist-17.2 percent, and Physical Therapist Assistant-26.3 percent.

Pathway 3: Health Informatics

The Biomedical Informatics plan of study is specifically linked to the Health Informatics pathway. All of the following courses are listed under this pathway and offer at least one industry certification

* Biotechnology Foundations in HMS 8344
* Food Science and Dietetics 8239
* Health Informatics I 8338
* Introduction to Health and Medical Sciences 8302
* Medical Laboratory Technology I 8377
* Medical Laboratory Technology II 8378
* Medical Terminology 8383
* Pharmacy Technician I 8305
* Pharmacy Technician II 8306

The Metropolitan employment data cited earlier shows that the region employs over 2,000 people in the areas of Medical Records. The PricewaterhouseCoopers employment study shows there is a demand for the following in the Northern Virginia region: Medical Records & Health Informatics-11.4 percent.

Pathway 4: Support Services

The Pharmacy plan of study is specifically linked to the Support Services pathway. All of the following courses are listed under this pathway and offer at least one industry certification.

* Biotechnology Foundations in HMS 8344
* Health Informatics I 8338
* Medical Terminology 8383
* Pharmacy Technician I 8305
* Pharmacy Technician II 8306

The Metropolitan employment data cited earlier shows that the region employs over 8,000 people in the area as either a Pharmacist or Pharmacy Technician. The PricewaterhouseCoopers employment study shows there is a demand for the following in the Northern Virginia region: Pharmacist -9.2 percent and Pharmacy Technician-9.7 percent.

Pathway 5: Biotechnology Research & Development

The Medical Laboratory Science plan of study is specifically linked to the Biotechnology Research & Development pathway. All of the following courses are listed under this pathway and offer at least one industry certification.

* Biotechnology Foundations in HMS 8344
* Medical Laboratory Technology I 8377
* Medical Laboratory Technology II 8378
* Sterile Processing Technician 8367

The Metropolitan employment data cited earlier shows that the region employs over 5,000 people the Medical Laboratory Science field. The PricewaterhouseCoopers employment study shows there is a demand for the following in the Northern Virginia region: Medical Laboratory Technician-12.3 percent, Medical Laboratory Technologist-7 percent, and Phlebotomist 8.8 percent.

Currently, the number of students graduating with health-related degrees is not keeping up with the demand in the region. These pathways will help drive capacity for this region by creating a pipeline of students who are on an accelerated track to enter the workforce. Students will graduate high school with industry certifications and college credits.

## Program Completion

Students must maintain a C average in their Academy courses to continue in the program. Students who complete all four years will be Academy program completers. Upon completion of the plan of study and graduation, students may enter the workforce with industry certifications earned, attend a community college, or attend a 4-year college or university and transfer credits earned in high school. Students who graduate from the Academy with an overall GPA of 2.75 or better will be offered guaranteed admission to the George Washington University School of Medicine and Health Sciences. Students will also be able to apply for scholarships dedicated to program completers through the George Washington University.

## Industry Certifications and College Readiness Assessments

All students in the Academy will take career-related assessments and inventories in Naviance, an online college and career-planning software tool, to help them identify the health-related plan of study that is best suited for them. ACPS offers the SAT suite of assessments to students in grades 8-12. This series consists of the PSAT 8-9, PSAT-NMSQT, and SAT. As a result, students will be able to follow their progress and determine which areas they need to focus on as they prepare for college. The results of these tests are also used by counselors to place students in appropriate honors and college-level courses.

Students will have the opportunity to earn an industry credential through the Economics and Personal Finance course, where students will take the W!SE Financial Literacy Certification exam. They will also have the opportunity to take career-specific industry certifications based on their selected plan of study. Below is a list of possible certifications students may take.

| **Health Academy Course Offerings and Industry Certifications** | | |
| --- | --- | --- |
| **Health Science Pathway** | **Related Courses** | **Possible Industry Certifications** |
| **Therapeutic Services** | * Emergency Medical Technician I 8333 * Emergency Medical Technician II 8334 * Food Science and Dietetics 8239 * Introduction to Health and Medical Sciences 8302 * Medical Laboratory Technology I 8377 * Medical Laboratory Technology II 8378 * Medical Terminology 8383 * Nurse Aide I 8360 * Pharmacy Technician I 8305 * Pharmacy Technician II 8306 * Sports Medicine I 7660 * Sports Medicine II 7662 * Sterile Processing Technician 8367 * Surgical Technologist I 8351 | * National Career Readiness Certification * Workplace Readiness Skills for the Commonwealth * Emergency Medical Technician * Emergency & Fire Science Management Assessment * National Registry EMT cognitive exam * Certified EKG Technician * National Certified Phlebotomy Technician (NCPT) * National Nurse Aide Assessment Program (NNAAP) * Certified Pharmacy Technician (ExCPT) Examination (NHA) * Certified Personal Trainer Exam * Certified Registered Central Service Technician (CRCST) * Technologist in Surgery - Certified TS- C (NCCT) |
| **Diagnostics Services** | * Biotechnology Foundations in HMS 8344 * Food Science and Dietetics 8239 * Introduction to Health and Medical Sciences 8302 * Medical Laboratory Technology I 8377 * Medical Laboratory Technology II 8378 * Medical Terminology 8383 * Sports Medicine I 7660 * Sports Medicine II 7662 * Sterile Processing Technician 8367 | * National Career Readiness Certification * Workplace Readiness Skills for the Commonwealth * National Certified Phlebotomy Technician (NCPT) * Certified Personal Trainer Exam * Certified Registered Central Service Technician (CRCST) |

|  |  |  |
| --- | --- | --- |
| **Health Academy Course Offerings and Industry Certifications** | | |
| **Health Science Pathway** | **Related Courses** | **Possible Industry Certifications** |
| **Health Informatics** | * Biotechnology Foundations in HMS 8344 * Food Science and Dietetics 8239 * Health Informatics 8338 * Introduction to Health and Medical Sciences 8302 * Medical Laboratory Technology I 8377 * Medical Laboratory Technology II 8378 * Medical Terminology 8383 * Pharmacy Technician I 8305 * Pharmacy Technician II 8306 | * National Career Readiness Certification * Workplace Readiness Skills for the Commonwealth * Health Informatics Assessment * National Certified Phlebotomy Technician (NCPT) * Certified Pharmacy Technician (ExCPT) Examination (NHA) |
| **Support Services** | * Biotechnology Foundations in HMS 8344 * Food Science and Dietetics 8239 * Health Informatics 8338 * Medical Terminology 8383 * Pharmacy Technician I 8305 * Pharmacy Technician II 8306 | * National Career Readiness Certification * Workplace Readiness Skills for the Commonwealth * Health Informatics Assessment * Certified Pharmacy Technician (ExCPT) Examination (NHA) |
| **Biotechnology Research and Development** | * Biotechnology Foundations in HMS 8344 * Food Science and Dietetics 8239 * Medical Laboratory Technology I 8377 * Medical Laboratory Technology II 8378 * Sterile Processing Technician 8367 | * National Career Readiness Certification * Workplace Readiness Skills for the Commonwealth * National Certified Phlebotomy Technician (NCPT) * Certified Registered Central Service Technician (CRCST) |

## Course Descriptions

As mentioned previously, students can take regular, honors, dual enrollment, and AP courses as part of their general education graduation requirements. T. C. Williams High School currently offers students the opportunity to pursue a one year general studies certificate through an agreement with NVCC. Students who choose to take these courses for dual enrollment credit, in addition to the courses offered by the George Washington School of Medicine and Health Sciences, will need to apply and meet NVCC admission requirements. T. C. Williams High School offers 16 dual-enrollment courses through NVCC and over 20 AP courses.

The following health and medical sciences classes will be offered as elective credits and count toward the completion of a specific plan of study. All of the courses are on the approved state CTE course list and will also be offered for dual enrollment credit through the George Washington University School of Medicine and Health Sciences. All course descriptions are from the CTE Resource Center- Virginia’s Educational Resource Center Online (VERSO).

### BIOTECHNOLOGY FOUNDATIONS IN HEALTH AND MEDICAL SCIENCES 8344 (VDOE)

This course focuses on various techniques that are used to modify living organisms, or parts of organisms, to improve plants and animals, and the development of microorganisms for specific purposes. Student activities range from bioprocessing and DNA analysis, to medicine, biomechanical systems, and the environment. Students gain insight and understanding about biotechnology career fields.

### EMERGENCY MEDICAL TECHNICIAN I 8333 (VDOE)

The tasks for this course represent the National Emergency Medical Services Educational Standards. Students explore and apply the fundamentals of emergency medical services, anatomy, physiology, and medical terminology while demonstrating skills in assessing and managing patient care, including assessing the scene and understanding shock, resuscitation, and trauma. Supervised field experience outside of school hours is required. Successful completion of this course and instructor endorsement qualifies students to enroll in EMT II to complete the program sequence. Successful completion of the second course in the sequence will earn the student CTE completer status. Successful completion of all course requirements and instructor endorsement may lead to eligibility to take the Virginia State Psychomotor Exam and the National Registry EMT cognitive exam.

### EMERGENCY MEDICAL TECHNICIAN II 8334 (VDOE)

The tasks for this course represent the National Emergency Medical Services Educational Standards. Students build on their knowledge and skills for providing basic life support by focusing on the areas of emergency medical services (EMS) operations, medical emergencies, and management of special patient populations. Supervised field experience outside of school hours is required. Successful completion of this second course in the sequence will earn the student CTE completer status. Successful completion of all course requirements and instructor endorsement may lead to eligibility to take the Virginia State Psychomotor Exam and the National Registry EMT cognitive exam.

### HEALTH INFORMATICS 8338 (VDOE)

Students will have the opportunity to explore the importance of safeguarding electronic healthcare information. They will be introduced to the various technologies and trends that affect the healthcare industry. Health informatics is a rapidly growing field with a projected 21 percent increase in demand for workers throughout the state of Virginia from 2014-2024. Students will explore aspects of health informatics to include the history of health information technology (IT) in the United States, the Electronic Health Record (EHR), ethical and privacy issues, and cyber security and data breaches.

### INTRODUCTION TO HEALTH AND MEDICAL SCIENCES 8302 (VDOE)

This course introduces the student to a variety of healthcare careers and develops basic skills required in all health and medical sciences. It is designed to help students understand the key elements of the U.S. healthcare system and to learn basic healthcare terminology, anatomy and physiology for each body system, pathologies, diagnostic and clinical procedures, therapeutic interventions, and the fundamentals of traumatic and medical emergency care. Throughout the course, instruction emphasizes safety, cleanliness, asepsis, professionalism, accountability, and efficiency within the healthcare environment. Students also begin gaining job-seeking skills for entry into the health and medical sciences field. In addition, instruction may include the basics of medical laboratory procedures, pharmacology fundamentals, biotechnology concepts, and communication skills essential for providing quality patient care.

### MEDICAL LABORATORY TECHNOLOGY I 8377 (VDOE)

In Medical Laboratory Technology I, students gain foundational knowledge and skills appropriate for a variety of medical-related career paths in the field of medical technology. They are introduced to diagnostic and therapeutic laboratory procedures that support medical research and practice, and investigate safety, quality assurance, and ethical concerns associated with the field of medical technology.

### MEDICAL LABORATORY TECHNOLOGY II 8378 (VDOE)

Students will build on the foundational knowledge and skills obtained in Medical Laboratory Technology I. The students will use the basic principles necessary to perform competently in the areas of Hematology, Clinical Chemistry, Clinical Microbiology, Immunohematology, and Immunology/Serology. Competency includes performing the technique correctly, understanding the theory of the procedures, and interpreting the results. Weekly laboratory activities will stress actual student performance of the routine tests normally seen in the clinical setting.

### MEDICAL TERMINOLOGY 8383 (VDOE)

Medical Terminology is designed to help students learn common medical terms essential for safe patient care. Topics are presented in logical order, beginning with each body system's anatomy and physiology and progressing through pathology, laboratory tests and clinical procedures, therapeutic interventions, and pharmacology. Students learn concepts, terms, and abbreviations for each topic.

### NURSE AIDE I 8360 (VDOE)

Nurse Aide I, offered as an occupational preparation course beginning at the 11th-grade level, emphasizes the study of nursing occupations as related to the healthcare system. Students study normal growth and development, simple body structure and function, and medical terminology and are introduced to microbes and disease. They receive elementary skill training in patient-nursing assistant relationships; taking and recording of vital signs; cardiopulmonary resuscitation; and bathing, feeding, dressing, and transporting of patients in hospitals and nursing homes. Limited on-the-job instruction in nursing homes and hospitals is part of the course. This course can be used as an introduction to practical nursing or to prepare the student for Nurse Aide II so that all competencies for a certified nursing assistant are met.

### NURSE AIDE II 8362 (VDOE)

Nurse Aide II is an occupational preparation course, emphasizing advanced skill training in areas such as catheter care, range of motion, bowel and bladder training, care of the dying, selected procedures for maternal and infant care, and admission and discharge procedures. Students learn diseases and body systems as related to advanced clinical care of the acute medical-surgical patient, the chronically ill, and the elderly. On-the-job instruction in a licensed nursing home is part of the course. Upon completion of the nurse aide program, the student is eligible to take the nurse aide certification exam that leads to employment as a certified nurse aide in hospitals and nursing homes.

### PHARMACY TECHNICIAN I 8305 (VDOE)

This certificate program is designed to provide students with the basic skills and knowledge to begin work as a pharmacy technician. The coursework will fulfill the requirements of the Board of Pharmacy and prepare students to take either the state examination or the national examination administered by the Pharmacy Technician Certification Board. Trained experienced pharmacy technicians who can demonstrate the right skills and knowledge should be able to pursue many exciting and respected career options or postsecondary study in the pharmacy field.

### PHARMACY TECHNICIAN II 8306 (VDOE)

This certificate program is designed to provide students with the basic skills and knowledge to begin work as a pharmacy technician. The coursework will fulfill the requirements of the Board of Pharmacy and prepare students to take either the state examination or the national examination administered by the Pharmacy Technician Certification Board. Trained, experienced pharmacy technicians who can demonstrate the right skills and knowledge should be able to pursue many exciting and respected career options or postsecondary study in the pharmacy field.

### SPORTS MEDICINE I 7660 (VDOE)

This course of studies provides students with the basic concepts and skill set required for an entry-level position as a sports medicine assistant. It introduces students to topics such as injury prevention, nutrition, first aid/CPR/AED, exercise physiology, and biomechanics. Students study basic human anatomy and physiology, medical terminology, legal and ethical issues in sports medicine, and career preparation. Course competencies have been constructed so as not to go beyond the professional scope of aide/assistant level. Mastery of the material in this course would provide students with a strong background should they wish to pursue certification in areas such as first aid, CPR, AED, and/or personal trainer.

### SPORTS MEDICINE II 7662 (VDOE)

This course of studies provides students with the basic concepts and skill set required for an entry-level position as a sports medicine assistant. It introduces students to topics such as injury prevention, nutrition, first aid/CPR/AED, exercise physiology, and biomechanics. Students study basic human anatomy and physiology, medical terminology, legal and ethical issues in sports medicine, and career preparation. Course competencies have been constructed so as not to go beyond the professional scope of aide/assistant level. Mastery of the material in this course would provide students with a strong background should they wish to pursue certification in areas such as first aid, CPR, AED, and/or personal trainer.

### STERILE PROCESSING TECHNICIAN 8367 (VDOE)

Students acquire knowledge of sterile processes and clean, disinfect, and distribute sterilized instruments and equipment in health-care facilities. Student instruction focuses on work in a sterile processing department and central service location, working as a team to maintain sterilization and storage, learning about microbiology and infection control, and apply principles and practices of sterile processing and decontamination. Upon completion, students will be able to take the international certification for sterile processing technicians. Students will complete a 400-hour externship, which requires 200 hours’ completion by high school graduation and 200 hours’ completion within six months of earning a provisional certification. Note: Following completion of the additional 200 hours, full certification is obtained.

### SURGICAL TECHNOLOGIST I 8351 (VDOE)

Students acquire knowledge and assisting-level skills to function in association with licensed nurses and surgeons/physicians, providing the best possible care of the surgical patient. Instruction emphasizes human anatomy, medical terminology, cleanliness, asepsis, safety, and efficiency in the operating room.

## ACPS-George Washington University School of Medicine and Health Sciences Course Crosswalk

The following chart shows a crosswalk of the courses at T. C. Williams High School with the dual-enrolled equivalent courses at the George Washington University School of Medicine and Health Sciences. Students must maintain a C or better in the course to obtain the dual enrollment credit and to continue in the Academy. Some “non-Academy” students may be enrolled in these courses if space is available, but these students will not be part of the official Academy. These students will also need to meet the George Washington University School of Medicine and Health Sciences admissions requirements to be registered for dual enrollment credit. Courses will be taught at the high school as part of the student’s regular schedule and the teachers will become adjunct faculty with the university.

| **DUAL ENROLLMENT CROSSWALK**  **by implementation year** | | | | |
| --- | --- | --- | --- | --- |
| **Plan of Study** | **T. C. Williams High School Course** | **George Washington University School of Medicine and Health Sciences Course** | **College Credits** | **First Year credits will be offered** |
| ALL | Introduction to Health and Medical Sciences | HSCI 1101 Careers in Health Care  HSCI 2111 Development of the Health Care Professions | 1 credit  3 credits | 2018-2019 |
| ALL | Medical Terminology with Anatomy and Physiology | HSCI 1102 Medical Terminology I  HSCI 1103 Medical Terminology II | 3 credits  3 credits | 2019-2020 |
| Surgical Technology | Sterile Processing Technician | HSCI 1107 Introduction to Sterile Processing | 3 credits | 2020-2021 |
| Nursing | Nurse Aide I | HSCI 1108 Introduction to Food & Nutrition | 3 credits | 2020-2021 |
| Biomedical Informatics | Health Informatics | HSCI 2113 Informatics in the HSCI | 3 credits | 2020-2021 |
| Sports Medicine | Sports Medicine I | HFR 1105 Survey of Anatomy and Physiology for Health and Rehabilitation  HFR 1107 Illness and Injury for Health and Rehabilitation | 2 credits  2 credits | 2020-2021 |
| Emergency Medical Services | Emergency Medical Technician I | EHS 1025 Introduction to Pre-Hospital Care  EHS 2131 History-Taking and Physical Exam | 2 credits  2 credits | 2020-2021 |
| Pharmacy | Pharmacy Technician I | PHRG 1101 Introduction to Pharmacy Practices I | 2 credits | 2020-2021 |
| Medical Laboratory Sciences | Medical Laboratory Technology I | MLS 1101 Introduction to Laboratory Sciences I | 4 credits | 2020-2021 |
| Surgical Technology | Surgical Technologist I | HSCI 1109 Introduction to Surgical Sciences | 3 credits | 2021-2022 |
| Nursing | Nurse Aide II | HSCI 1110 Concepts of Pathophysiology and Health | 3 credits | 2021-2022 |
| Biomedical Informatics | Biotechnology Foundations in Health and Medical Sciences | HSCI 1106 Introduction to Biotechnology for Health Sciences | 3 credits | 2021-2022 |
| Sports Medicine | Sports Medicine II | HFR 1109 Exercise Science for Health and Rehabilitation  HFR 1111 Cases in Health and Rehabilitation | 2 credits  2 credits | 2021-2022 |
| Emergency Medical Services | Emergency Medical Technician II | EHS 1101Introduction to Emergency Health Services I  EHS 1102 Introduction to Emergency Health Services II | 2 credits  2 credits | 2021-2022 |
| Pharmacy | Pharmacy Technician II | PHRG 1102 Introduction to Pharmacy Practices II | 2 credits | 2021-2022 |
| Medical Laboratory Sciences | Medical Laboratory Technology II | MLS 1102 Introduction to Laboratory Sciences II | 4 credits | 2021-2022 |

Registration and transcription policies and practices for dual-enrollment students are consistent with those for on-campus students at the George Washington University. Students will receive an official notification from the School of Medicine and Health Sciences verifying registration and matriculation status. The university registration, add/drop, and withdrawal timeframes will be published for all dual-enrolled students. The university provides an outline of registration and application processes to students, including any prerequisites for courses offered for dual enrollment. A list of all courses offered through dual enrollment is available with course descriptions. Courses offered for dual enrollment are the George Washington University School of Medicine and Health Sciences catalogued courses with the same departmental designations, course descriptions, numbers, titles, and credits. These courses are available to the public.

## Materials and Equipment

The equipment specified for each course will be located within the classroom/laboratory. For current plans of study being offered at T. C. Williams High School, equipment includes: high fidelity simulation manikins, operating room table, sterilization equipment, hospital gurneys, hospital beds, computer laptop carts, anesthesia cart, instruments, and operating room equipment.

As part of developing the Academy, the Introduction to Health and Medical Sciences classes will be at the Minnie Howard Campus. To equip a new classroom, the following will need to be purchased:  CPR manikins, AED, hospital bed, biological training models, articulated bone skeletons, sphygmomanometers, stethoscopes, demonstration counter with sink, manikin, and microscopes.

Future equipment and material purchases will support the implementation of the remaining four pathways. This equipment will include additional anatomical models, emergency back board and neck stabilizer, treatment equipment, microscopes, incubators, micro-centrifuge, electrophoresis system, refrigerator, spectrophotometer, Doppler equipment, portable suction unit, teaching manikins, and utility carts. As much as possible, this equipment will be shared among programs.

The Academy will utilize funding to support each career pathway through a variety of resources. Financial support will be provided by the school division, state equipment funds, donations from local industry, higher education partners, and the Carl D. Perkins Career and Technical Education Act of 2006 (Perkins IV). Equipment that is purchased with local, state, and federal funds will follow all purchasing guidelines. Future equipment purchases for each additional plan of study will be selected from the state-approved equipment list for CTE programs. Equipment purchased through the Perkins IV Grant will meet all applicable grant regulations.

## Work-Based Learning

The Academy will offer enrolled students many unique opportunities. ACPS is committed to providing students with rigorous college-level academic and technical education courses, and a combination of classroom learning with real-world experiences. The Academy’s work-based learning will include a sequence of workplace experiences that are related to students’ career goals, be based on instructional preparation, and be performed in partnership with local businesses, industries, or other organizations in the community. The work-based learning experiences will allow students to apply classroom instruction in a real-world work environment. Opportunities will include:

**Clinical Experience**

Many of the Academy plans of study have clinical hour requirements set by the Virginia Board of Health Professions. For a student to successfully complete their chosen plan of study and obtain their industry certification, all academic and clinical experience requirements must be met. Students will integrate knowledge acquired in the classroom with clinical practice, allowing students to acquire fundamental skills and behaviors needed in the healthcare field. These experiences place students in a variety of healthcare settings so they can better understand the scope of the profession and healthcare needs. Clinical experience is closely supervised. Current clinical partnerships include: Goodwin House, INOVA Health Systems, and Sentara.

If a student fails to meet the clinical experience requirements, the student will not be eligible to take the related certification/licensure exam, and the student will not have successfully completed the course. Failure to complete the course requirements will result in dismissal from the program and the Academy. Although the student will no longer be an Academy student, they will still be able to enroll in additional Health and Medical Sciences courses as a “non-Academy” student.

**Internships**

Internship opportunities will be available to juniors and seniors interested in gaining real-world application experience in the workplace. Students will be given the opportunity to develop and practice career-related knowledge and skills needed for a specific entry-level job. The internship will provide hands-on experience related to the student’s career interests. Students are currently provided internship experiences through the T. C. Williams High School senior experience program. Additional internship opportunities are being developed with industry partners, for example: T. C. Williams Athletic Department, local physical therapy/occupational therapy clinics, private healthcare providers, and the City of Alexandria Fire Department.

**Service Learning**

Service learning provides students with an opportunity to perform community-service work and develop personal, workplace-readiness, academic, and citizenship skills. Students engage in critical and reflective thinking, and gain experience in applying theory to practice. Recent service learning projects have included: community health fairs, fundraisers for student competitions, and service projects such as Penny for Patients, food drives, and community outreach.

**Job Shadowing**

Job shadowing provides students with the opportunity to interview healthcare professionals and observe the performance of a variety of job tasks, fostering career and workplace awareness and promoting career awareness. It also serves to strengthen a student’s motivation and help them develop informed decision-making skills.

## Daily Schedule/Grading Scale

T. C. Williams High School has 183 instructional days following an alternating block schedule. The first block is a 57 minute period that meets daily. The remaining blocks meet every other day and are 95 minutes in length. All of the classes offer over 140 hours of instructional time. Classes that are required to provide 280 hours of instruction are double-blocked. The Academy courses will be offered as part of the student’s regular schedule. *(Appendix E – Bell Schedule)*

The grading scale at T. C. Williams High School is the same as the grading scale at the George Washington University. Both are 10-point grading scales: 90-100=A, 80-89=B, 70-79=C, 60-69=D, 59 and below=F.

## Governor’s Exemplary Standards Awards Program

In 2017, ACPS was nominated for a Governor’s Creating Excellence Award for the Surgical Technology program. The Academy will continue to participate in the Governor’s Exemplary Standards Award program and comply with all program requirements.

## Data Collection and Program Evaluation

The school division Accountability Department and local CTE office will play an instrumental role in data collection and program evaluation. Ongoing survey results from students, alumni, parents, faculty, and associated businesses will be used to inform the advisory and planning committees of the Academy’s strengths and challenges, as well as student achievements and goals met. Data collected from the CTE Local Annual Performance Report (APR), school attendance records, disciplinary records, student performance on standardized tests (i.e., SOL, PSAT, SAT), as well as from industry certifications, credentials, and licensure tests will be analyzed and used for program improvement. *(Appendix F – Health and Medical Sciences Student Survey and Results)*

# ADMINISTRATIVE PROCEDURES

## Partnerships

ACPS has a long-standing partnership with NVCC for dual enrollment opportunities for students. A newly-formed partnership with the George Washington University School of Medicine and Health Sciences will support and enhance instructional opportunities, including dual-enrollment courses and collaborative staff training. In addition, local community and business partnerships will be utilized to guide program development, serve as guest speakers, and provide work-based learning experiences for students.

ACPS has formal partnership agreements in place with the INOVA Health Systems, Goodwin House, and Sentara. *(Appendix G – Affiliation Agreements)*

## Advisory and Planning Committees

Committees have been created to provide overall guidance and advice related to the development and on-going operations of the Academy. The advisory committee is comprised of ACPS and the George Washington University School of Medicine and Health Sciences administrators as well as NVCC representatives, industry partners, parents, and students. The advisory committee will provide the overall vision for the Academy. The planning committee is comprised of ACPS and the George Washington University School of Medicine and Health Sciences faculty in addition to NVCC representatives, business partners, parents, and students who will work on the implementation of the Academy. The planning committee will meet quarterly to address concerns related to the operations of managing the Academy. The planning committee has sub-committees with content area experts as members that develop curriculum, formalize work-based learning opportunities, and foster growth of the Academy.

The goals of the advisory committee include:

* Provide active guidance on an ongoing basis in order for the Academy to foster partnerships and mentorships with the George Washington University School of Medicine and Health Sciences, Northern Virginia Community College, local hospitals, community partners, local medical offices, and ACPS
* Develop a shared vision for an integrated and relevant curriculum that will engage students in problem solving, research and development, and outreach
* Provide advice on decisions to be made
* Make decisions on how to best proceed with events and/or activities
* Bridge connections with the community to foster work-based learning opportunities for Academy students

The goals of the planning committee include:

* Provide guidance related to the development for each plan of study
* Provide support and guidance related to policies and regulations for specific content areas, such as Nursing or Emergency Medical Technician
* Provide Leadership for sub-committees related to specific plan of study or action items such as marketing, diversity, or fundraising
* Assist in locating work-based learning sites for students

Committee members will continue to be added as programs expand, and additional parent members will be included once students are selected into the program. Refer to *Appendix H - Partnership Agreements*, for current advisory and planning committee members.

## Student Recruitment, Selection, and Admission

### Academy Announcement, Publicity, and Recruitment

In October 2017, ACPS and the George Washington University School of Medicine and Health Sciences issued a joint press release announcing their new partnership. This announcement was followed up with an official Academy Roll Out on November 9, 2017 where local business and community partners were invited to learn more about the program and sign on as partners. The ACPS Department of Communications has linked information about the Academy to the existing CTE webpage and created a video that can be used to promote the Academy [Link: https://www.acps.k12.va.us/healthsciences](https://www.acps.k12.va.us/healthsciences). The George Washington School of Medicine and Health Sciences has also created a webpage dedicated to the program [Link: http://smhs.gwu.edu/hssp](http://smhs.gwu.edu/hssp).

Due to the unique features of this partnership, the local media also shared information. *The Washington Post, The Alexandria Gazette* and *The Northern Virginia Magazine* wrote articles about the partnership and two local television stations also had segments about the partnership. Committee members are working with the middle and high school counselors and the Family and Community Engagement Center (FACE) to educate and inform families about the new Academy and recruit students. The first parent information session was held on November 28, 2017 with additional information sessions included in the Transition to High School program on January 24, 2018 and Academic Advising programs held on February 6, 2018. *(Appendix I – Promotion and Marketing Materials)*

Committee members also attended PTA meetings during December and January to provide information to families. In addition, meetings were held with high school and middle counselors in November, December, and January to fully explain the program and options for incoming ninth-graders, as well as students already in high school. An open house was held at George Washington Middle School on February 13, 2018, as well as a presentation to a mentoring program on February 15, 2018. During the rising ninth grade open house on February 26, 2018 at the Minnie Howard campus of T. C. Williams, information was shared about the Academy to rising ninth-grade students and parents. In March, displays and information were provided during eighth-grade lunch shifts at all middle school campuses to answer questions and also assist students with the application process.

### Application

The first Academy cohort will start in the Fall of 2018 with students in the graduating class of 2022. All interested middle school students must apply for admission to the Academy and have a minimum cumulative GPA of 2.5 in order to apply. Middle school counselors will provide student transcripts to the selection committee; however, GPA will not be used as a ranking factor during the selection process. The application was available online February 6, 2018 and consists of three different elements: student demographic information, three recommendation forms, and a student personal statement. Applications were due April 1, 2018.

### Selection Process

After all applications have been received, the selection committee will make final decisions regarding admissions. The selection committee will include representatives from Special Education, EL, counseling, administration, and a health sciences teacher. The committee will read and evaluate student personal statements and assign scores. These scores will be combined with the scores from the teacher recommendations to provide a final score and ranking for each student. The committee will meet to discuss the applications and make a final decision regarding admission. Students will be notified by June 4, 2018 about their admission status. Students accepted into the program and their parents will attend a welcome program in late June. During this program, students and parents will complete the paperwork to confirm their participation in the Academy*. (Appendix J – Application Instructions, Application, and Scoring Rubric)*

### Admission

When a student is admitted into the Academy, there are additional admissions requirements that must also be met when applying for dual enrollment credit to the George Washington University School of Medicine and Health Sciences and/or NVCC. These admission requirements are defined by dual-enrollment agreements with both entities. If students do not apply for admission or meet the eligibility requirements for the George Washington University School of Medicine and Health Sciences and/or NVCC, they will not be able to earn the dual-enrollment credits offered for the course. However, the students will be able to remain enrolled in the course and receive high school credit.

### Summer Bridge Program

Students entering the Academy will be required to attend a two week Summer Bridge Program from July 9-20, 2018. The Summer Bridge Program is designed to strengthen student readiness and preparedness to enter the Academy. The program will be held at the George Washington University Center in Alexandria, Virginia. Students will select one three-hour session to attend each day. Morning, afternoon, or evening sessions will be offered to meet the needs of students who may be taking summer school and/or working. The Summer Bridge Program will focus on career exploration, academic preparation in English, and study and organizational skills. This will facilitate a smooth transition from middle to high school and prepare students for their first college courses. During the Summer Bridge Program, students will apply to the George Washington University School of Medicine and Health Sciences and register for their first course.

## Code of Conduct and Attendance

The student code of conduct in the Academy is set by the Alexandria City Public School Board. The student code of conduct is designed to:

* provide a clear standard of expectations for student behavior while participating in all school-related activities;
* inform the school community of corrective instruction and consequences for addressing behavior infractions; and,
* ensure that every student in ACPS is engaged in a rigorous, relevant, and internationally benchmarked education to enable all students to succeed as citizens in the global community, in a safe and orderly learning environment.

Each year families receive a booklet outlining these policies as well as student compulsory attendance requirements set by the Commonwealth of Virginia. Students and parents must sign a school division signature form acknowledging they have received and reviewed the booklet. This booklet is also available online at [Link: https://www.acps.k12.va.us/codeofconduct](https://www.acps.k12.va.us/codeofconduct), and, as required by the law, contains the following:

* Responsible Computer System Use Policy for Students (Policy IIBEA/GAB)
* Compulsory School Attendance Information (Policy JEA)
* Standards of Student Conduct (Policy JFC-R)
* Equity and Excellence Policy (Policy IGBJ)
* Honor Code (Policy JFC-R2)

Teachers record attendance daily and parents are notified if a student is absent from class. If students have numerous absences, the teacher communicates with the counselor and social worker so that support can be immediately put in place as needed.

## Transportation

The Academy will be offered at the only high school in Alexandria, and the courses will be part of the students’ regular schedules. Students will arrive to school via the same transportation they use every day. At this time, there is not a need for additional transportation.

Students pursuing the Nursing plan of study will complete their clinical hours at Goodwin House and other local nursing homes. Students will take ACPS buses to and from these locations.

Students attending the Summer Bridge Program will be transported to the George Washington University Alexandria Center by parents or Alexandria’s “Driving Alexandria Safely Home” (DASH) bus. Through an Alexandria City and school division agreement, students with ACPS student ID’s are able to ride the DASH bus at no cost.

## Staff Recruitment, Selection, and Assignment

The Academy will hire personnel who meet the Virginia teacher licensure requirements and/or postsecondary faculty qualifications. ACPS human resources guidelines will be followed when recruiting and hiring personnel for the Academy.

## The George Washington University School of Medicine and Health Sciences Adjunct Faculty Appointments

ACPS teachers receiving adjunct appointments from the George Washington University are approved by, and must follow guidelines set by, the George Washington University and its School of Medicine and Health Sciences. Recommendations for appointment are made within the Department of Clinical Research and Leadership, and teachers must meet the minimum qualifications for instructors teaching on campus.

The George Washington University School of Medicine and Health Sciences will ensure adjunct faculty are informed of, and adhere to, program policies and procedures. All new adjunct faculty will be required to complete an onboarding process and participate in ongoing professional development activities.

All candidates will provide curriculum vitae outlining instructor credentials by discipline, letter of recommendation, and a brief description of the courses they are qualified to teach.

All adjunct faculty will also complete online Blackboard training and receive a copy of the faculty handbook. The faculty handbook will include forms and contact information specific for dual enrollment.

Faculty liaisons will provide all new adjunct faculty with course-specific training in course philosophy, curriculum, pedagogy, and assessment before the adjunct teaches the dual enrollment course.

## Staff Development

ACPS provides opportunities for teacher participation in engaging professional development activities. To assist in providing high-quality health science instruction to prepare students for Academy coursework, Academy teachers will be provided with opportunities to participate in professional development focusing on the health science pathways in the Academy. ACPS and the George Washington School of Medicine and Health Sciences subject matter experts and liaisons will participate in a summer workshop designed to align course curriculum, share resources, and create common assessments. The high school teachers will be required to integrate the shared content and strategies into classroom modules and lessons. Opportunities for professional development during the school year will be provided through peer observations of classroom instruction, with follow-up activities and resources provided to teachers. Additionally, training that supports research-based instructional strategies relevant to the health and medical sciences curriculum will be provided. Where applicable, business partners will also assist in providing teacher training. Teachers will collaborate with postsecondary and business partners to create real-world laboratory and clinical opportunities for students to apply what they have learned. Specific examples of professional development include the following activities.

### New Faculty Orientation & Annual Kick-Off Workshop

Newly appointed adjunct faculty will be required to attend new instructor orientation during the Annual Kick-Off Workshop at the George Washington School of Medicine and Health Sciences. The orientation will educate the new adjunct faculty about university policies and procedures, and they will learn what it means to be a George Washington University dual-enrollment teacher and best practices for teaching specific courses.

All ACPS teachers with George Washington University faculty appointments are required to attend the Annual Kick-Off Workshop. Invitations will be extended to school division instructors, support staff, and administrators. The Annual Kick-Off Workshop is a one-day event in August, before the school year starts, that includes professional development and training to discuss policies and procedures, reflect on prior-year performance, and evaluate data. Through the workshop sessions, faculty will benefit from presentations by the George Washington School of Medicine and Health Sciences faculty, the George Washington University dual enrollment team, and other college administrators. This professional development event will take place at the George Washington University’s Alexandria Center.

### Brunch/Lunch and Learn

All ACPS teachers with George Washington School of Medicine and Health Sciences appointments are invited to attend the monthly Instructional Media and Programming to Advance Collaboration and Teaching (IMPACT) activities, either in-person or remotely: [Link: https://smhs.gwu.edu/impact/lunch-learn-series](https://smhs.gwu.edu/impact/lunch-learn-series). These sessions provide a monthly forum where faculty can discuss topics that are useful in health science education. Topics range from technology to new techniques used in the field.

### Annual Debriefing Meeting

At the end of the school year (June), dual enrollment teachers will be asked to debrief on lessons learned and best practices to determine what worked well and what needs improvement. Information collected at these debriefings with ACPS and the George Washington University School of Medicine and Health Sciences dual enrollment participants will help shape professional development and training at the Annual Kick-Off Workshop. All high school teachers with the university appointments are required to participate. Invitations will be extended to high school instructors with dual enrollment appointments, support staff, and administrators.

### Faculty Liaison

George Washington University School of Medicine and Health Sciences will designate a faculty liaison to support the high school teachers, support staff, and administrators. The George Washington University faculty liaison will provide ongoing support for the Academy high school teachers throughout the school year related to content, curriculum design, facilitation, and administrative questions.

### Curriculum Oversight

For each dual enrollment course offered by George Washington University, the School of Medicine and Health Sciences maintains a faculty member with subject matter expertise. The faculty member participates in curriculum matters such as content development and revisions, periodic course review, and other assessment and evaluation activities. The subject matter expert is the secondary contact for ACPS Academy teachers instructing the dual enrollment courses.

Adjunct faculty will meet the dual-credit teacher expectations of the National Alliance of Concurrent Enrollment Partnerships (NACEP) as well as the policy guidelines and Middle States Commission on Higher Education (MSCHE) guidelines for faculty.

## Staff Evaluation

Staff will be evaluated according to the human resources policies of ACPS. The ACPS teacher performance appraisal provides a systematic structure to build and ensure a culture of professional learners committed to meeting the educational needs of all students.

## The George Washington University School of Medicine and Health Sciences Evaluation

The George Washington University School of Medicine and Health Sciences will conduct end-of-term student course evaluations for each dual enrollment course to provide faculty with student feedback. The George Washington University faculty will conduct and report regular and ongoing evaluations of the dual enrollment program effectiveness and use the results for continuous course and faculty improvement. They will also conduct end-of-term faculty evaluations to ensure students proficiency of course learning outcomes is measured using comparable grading standards and assessment methods to on-campus courses. Faculty liaisons will also conduct site visits to observe course content and delivery, student discourse, and rapport to ensure courses offered through dual enrollment are equivalent to courses offered on-campus.

## Parent, Student, and Community Involvement

Parents, students, and the community will be actively involved in the Academy program planning. As mentioned previously, an Academy kick off was held on November 9, 2017 to inform the Alexandria community and local business partners about the Academy. There have been numerous parent and student meetings as well. Information gathered at these meetings has been used in the development of the Academy, application process, and the creation of the Summer Bridge Program. Meetings will continue with these various groups to inform, assess, and guide the development of the Academy. Additional parents will join the planning and advisory committees once students are selected.

In middle school, students in sixth and seventh grade complete career assessments in Naviance, an online college and career tool, and create an individual Academic & Career Plan, referred to as My Career and Academic Plan (MYCAP). Their MYCAP is housed in Naviance and is reviewed and updated annually during the academic planning conference with their counselor. The MYCAP is adjusted based on student interest and academic and career goals, and parents are required to sign off on the MYCAP each year. Currently the MYCAP is created during an advisory period. Beginning with the 2018-2019 school year, the Career Investigations course content will be offered through middle school seventh and eighth grade physical education classes.

During the counselor meetings, postsecondary plans and academic assessments are also reviewed and discussed. College admission requirements, industry certifications, college degrees, and advanced college degree programs will be reviewed with students and parents. These topics are covered during the transition to high school program and the academic advising night held in late January and early February as well.

During the Summer Bridge Program, and in the Introduction to Health and Medical Sciences course, significant instructional time will be spent on career exploration and learning about the various healthcare career opportunities. Students will take additional career and learning styles assessments, and teachers will review PSAT scores and discuss how those scores relate to college readiness. Business partners and the George Washington University School of Medicine and Health Sciences faculty will play an active role through classroom presentations, field trips, and job shadowing opportunities. These efforts will help students to make informed decisions when choosing a plan of study to pursue and for planning postsecondary options.

# DOCUMENTATION OF INSURANCES, BUDGET, AND FISCAL INFORMATION

## Fiscal Agent/Certificates of Assurance

ACPS will act as fiscal agent for the Governor’s Health Sciences Academy. ACPS follows the policies and procedures of the School Board of ACPS and all applicable state and federal laws with all assurances and agreements. *(Appendix K - Statement of Assurances and Appendix L - Insurance Management)*

## Budget

The budget table outlines the anticipated budget for the 2018-2019 school year and includes the mandatory Summer Bridge Program, off-site activities, and extracurricular enrichment events. In addition to in-kind services, funding for the Academy includes anticipated local funds totaling $500.00, State Perkins Grant funds totaling $5,000, and Local Perkins funds totaling $13,046.15, for a grand total of $18,546.15. *(Appendix M - Budget)*

## Budget Narrative: Direct Costs

### Personnel

Personnel costs reflect payroll for teachers to work on off-contract projects and activities, and also reflects the Summer Bridge Program.

### Employment Benefits

Personnel benefits will be used to cover the 7.65 percent benefits, to include FICA and Medicare.

### Purchased/Contractual Services

Not used.

### Internal Services

ACPS buses may be required for field trips.

### Staff Development

Staff development will be provided in-kind by George Washington University School of Medical and Health Sciences.

### Summer Component Activities

Not used.

### Travel

Not used.

### Contractual Services

Not used.

### Materials and Supplies

Materials and supplies will be needed for the Summer Bridge Program, to include basic instructional supplies, T-shirts, car magnets, and other student incentives.

### Equipment

Not used.

### Facilities

The facilities will be provided in-kind by the George Washington University Center in Alexandria, Virginia for the Summer Bridge Program.

## Budget Narrative: Indirect Costs

5.2 percent indirect costs are included.

# Appendices: A-M

* [Appendices A-M (PDF)](http://www.doe.virginia.gov/boe/meetings/2018/06-jun/item-a-appendices-a-m.docx)