Albemarle County Public Schools

Governor's Health Sciences Academy
Executive Summary
April 2, 2013

Partnership: Albemarle County Public Schools, Charlottesville/Albemarle Technical Education Center, University of Virginia, University of Virginia Healthcare System, University of Virginia School of Medicine, University of Virginia Innovations, Piedmont Virginia Community College, Martha Jefferson Hospital, Virginia Biotechnology Association, Defense Intelligence Agency, Albemarle County Economic Development, Hemoshear, Phthisis Diagnostics, Afton Scientific, Orange Family Physicians, and Charlottesville Sedation Dentistry.

Lead/Fiscal Agent: Albemarle County Public Schools

Lead Contact Person:
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Governor's Health Sciences Academy
Monticello High School
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Academy Locations: Monticello High School

Number Students: The Governor's Health Sciences Academy will have the capacity to enroll 200 students, grades 9-12. During the initial school year (2013-2014) applications will be accepted for 70-75 students.

Career Pathways:
Biotechnology Research and Development (2013-2014)
Therapeutic Services (2013-2014)
Health Informatics (2014-2015)
Diagnostic Services (2015-2016)
Support Services (2016-2017)

Academy Goals and Description: The overall goals of the Governor's Health Sciences Academy are to provide expanded options for students' health science literacy and other critical knowledge, skills, and credentials that will prepare them for high-demand, high-wage, and high-skills health sciences careers in Virginia.

Specific Governor's Health Sciences Academy objectives include:

- Improve academic achievement of students in the Academy;
- Increase completion of dual enrollment courses;
- Provide work-based experiences for students through strong partnerships with businesses and health care institutions;
- Increase high school graduation rates;
- Reduce dropout rates; and
- Increase enrollment and retention in postsecondary education.

The State Council of Higher Education for Virginia

Review of Governor's STEM Academy Proposal

Name of Lead Entity on Proposal: *Albemarle County Public Schools*

Date of Review: May 8, 2013

The State Council of Higher Education for Virginia recommends approval of: *Governor's Health Sciences Academy at Monticello High School*

Peter Blake
Director

5/8/13
Date

Program Highlights:

As a result of participating in the Governor's Health Sciences Academy, students will:

- Gain a deeper understanding of the skills and knowledge incorporated in their health science fields of study;
- Benefit from specialized, project-based courses which develop critical-thinking, problem-solving, and decision-making skills, preparing them for the 21st century world;
- Acquire greater communication and collaborative skills;
- Develop workplace readiness skills;
- Receive opportunities to earn industry certifications preparing them to be more competitive in the work force and when applying to advanced training schools or postsecondary institutions;
- Obtain meaningful hands-on experiences in their career pathway studies; and
- Benefit from opportunities for internships, mentorships, clinical, and cooperative experiences, providing the student with an advantage when entering postsecondary education and/or the workplace.

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Virginia Department of Education
Governor's Health Sciences Academy
Planning Grant
Proposal Review Checklist

For

Albemarle County Public Schools

Governor's Health Sciences Academy

Virginia Department of Education
Governor's Academy for Health Sciences
Planning Grant Proposal Review Checklist

I. Partnership Capacity

Partnerships desiring to implement a Governor's Academy for Health Sciences shall provide the Department of Education with evidence of the following:

Criteria	Documentation			Comments
	Full	Partial	None	
A. An active, ongoing planning committee, including a list of members and signed certifications from each that they are willing and able to serve in that capacity. At a minimum, members must represent regional K-12 education (superintendents or designee), higher education, healthcare agencies, and business and industry. All partners must be represented on the committee.	X			
B. An advisory committee, including a list of members and signed certifications from each that they are willing and able to serve in the capacity.	X			
C. A written memorandum of agreement among school divisions, local businesses, postsecondary institutions, and any other partners that outlines ways in which community resources will contribute to the Governor's Academy for Health Sciences to broaden the scope of students' educational experiences.			X	Agreements have been established. Applicant indicates the MOA will be provided prior to the second review.
D. A statement of assurances that the Governor's Academy for Health Sciences Planning Committee has reviewed provisions of *Administrative Procedures Guide for the Establishment of Governor's Academies for Health Sciences* and agrees to follow the guidelines set forth in the document (see appendix).	X			

Criteria	Documentation			Comments
	Full	Partial	None	
E. A statement of assurances that an ongoing Governing Board will be established to reflect current Board of Education regulations relative to jointly operated schools and programs (see appendix).				N/A
Comments:				

II. Need/Rationale for the Academy

Partnerships desiring to implement a Governor's Academy for Health Sciences shall provide the Department of Education with evidence of the following:

Criteria	Documentation			Comments
	Full	Partial	None	
A. Demonstration of the need/rationale for the Academy. This statement should be concise and state the major reasons to have a Governor's Academy for Health Sciences, including need at the state, regional, and local levels.	X			
B. A description of the enhanced or additional offerings in health sciences as well as in career and technical education that will meet the need described above.	X			
C. A fiscal agent that is a school division, including a certification that the division is willing and able to serve in that capacity.	X			
Comments:				

III. Program Description

Each regional Governor's Academy for Health Sciences planning committee shall develop cooperatively with at least two or more school divisions, business and industry, community, healthcare agencies, and higher education partners and have available for review and dissemination, a program description.

A. A statement of program goals addressing the following criteria:

Criteria	Documentation			Comments
	Full	Partial	None	
1. Rigorous academic content with career and technical instruction.	X			
2. For year one of implementation, at least two of the five pathways for health sciences are well articulated and fully developed and available to students. The remaining three pathways must be fully articulated and implemented within the next three years.	X			
3. Individualized high school plans to ensure course selections that are aligned with students' transition and career goals after high school.	X			
4. Evidence that graduates will complete a college and career readiness curriculum for a particular health science career pathway.	X			
5. Incorporation of *Virginia's Workplace Readiness Skills for the Commonwealth*.	X			
Comments:				

B. A statement of program objectives and performance measures to:

Criteria	Documentation			Comments
	Full	Partial	None	
1. Improve academic achievement of Academy students;	X			
2. Increase completion of dual enrollment courses;	X			
3. Provide work-based experiences for students through strong partnerships with businesses;	X			
4. Increase high school graduation rates;	X			
5. Reduce dropout rates;	X			
6. Increase enrollment and retention in postsecondary education;	X			
7. Increase the proportion of students completing a college and career readiness curriculum in high school;	X			
8. Reduce the proportion of students requiring remediation in college;	X			
9. Increase the number of industry certifications awarded to high school students; and	X			
10. Increase the number of graduates employed in high-wage, high-demand and high-skill careers.		X		Provide documentation pertaining to how this will be measured.
Comments:				

C. A brief description of the proposed program, including:

Criteria	Documentation			Comments
	Full	Partial	None	
1. Site location;	X			
2. Number of students to be served;	X			
3. Grade levels;	X			
4. Curriculum design including CTE and academic;	X			
5. List of courses to be delivered;				
6. Description of how/where the courses will be delivered. Courses may be delivered on a high school, technical center or community college campus, online, or in other innovative ways; and	X			
7. Designation of full-day or part-day, academic-year program.	X			
Comments:				

D. Evidence of participation in the Governor's Exemplary Standards Award Program for Career and Technical Education:

Evidence	Documentation			Comments
	Full	Partial	None	
		X		A request has been submitted to the Governor's Exemplary Standards Award Program director to be included in the next cycle of program reviews.
Comments:				

E. Program and course descriptions:

E.1. For year one of implementation, at least two of the five well-articulated career pathways in health sciences must be available for students. The remaining three health sciences pathways must be implemented within the next three years.

Each of the five health science pathways must meet the following criteria:

Criteria	Documentation			Comments
	Full	Partial	None	
Pathway #1 – Therapeutic Services				
a. Must include opportunities to earn industry credentials, postsecondary certificates, diplomas or associate degrees while in high school and pursue additional industry credentials and academic degrees at the associate, bachelors and graduate levels.	X			
b. Must be in a high demand health science field identified by a statewide authority or organization, such as the Virginia Economic Development Partnership as a strategic growth area for Virginia, or	X			
c. Must address regional and local work force demand in high-wage, high-skill occupations as identified by employers and work force officials.	X			
d. This career pathway should drive the innovative capacity of the region and/or state.	X			
Comments:				

Criteria	Documentation			Comments
	Full	Partial	None	
Pathway #2 – Diagnostic Services				
a. Must include opportunities to earn industry credentials, postsecondary certificates, diplomas or associate degrees while in high school and pursue additional industry credentials and academic degrees at the associate, bachelors and graduate levels.	X			
b. Must be in a demanded health science field identified by a statewide authority or organization, such as the Virginia Economic Development Partnership as a strategic growth area for Virginia, or	X			
c. Must address regional and local work force demand in high-wage, high-skill occupations as identified by employers and work force officials.	X			
d. This career pathway should drive the innovative capacity of the region and/or state.	X			
Comments:				

Criteria	Documentation			Comments
	Full	Partial	None	
Pathway #3 – Health Informatics				
a. Must include opportunities to earn industry credentials, postsecondary certificates, diplomas or associate degrees while in high school and pursue additional industry credentials and academic degrees at the associate, bachelors and graduate levels.	X			
b. Must be in a demanded health science field identified by a statewide authority or organization, such as the Virginia Economic Development Partnership as a strategic growth area for Virginia, or	X			
c. Must address regional and local work force demand in high-wage, high-skill occupations as identified by employers and work force officials.	X			
d. This career pathway should drive the innovative capacity of the region and/or state.	X			
Comments:				

Criteria	Documentation			Comments
	Full	Partial	None	
Pathway #4 – Support Services				
a. Must include opportunities to earn industry credentials, postsecondary certificates, diplomas or associate degrees while in high school and pursue additional industry credentials and academic degrees at the associate, bachelors and graduate levels.	X			
b. Must be in a demanded health science field identified by a statewide authority or organization, such as the Virginia Economic Development Partnership as a strategic growth area for Virginia, or	X			
c. Must address regional and local work force demand in high-wage, high-skill occupations as identified by employers and work force officials.	X			
d. This career pathway should drive the innovative capacity of the region and/or state.	X			
Comments:				

Criteria	Documentation			Comments
	Full	Partial	None	
Pathway #5 – Biotechnology Research and Development				
a. Must include opportunities to earn industry credentials, postsecondary certificates, diplomas or associate degrees while in high school and pursue additional industry credentials and academic degrees at the associate, bachelors and graduate levels.	X			
b. Must be in a demanded health science field identified by a statewide authority or organization, such as the Virginia Economic Development Partnership as a strategic growth area for Virginia, or	X			
c. Must address regional and local work force demand in high-wage, high-skill occupations as identified by employers and work force officials.	X			
d. This career pathway should drive the innovative capacity of the region and/or state.	X			
Comments:				

E.2. List of all requirements for successful program completion:

Requirement for Program Completion	Documentation			Comments
	Full	Partial	None	
	X			
Comments:				

E.3. Academy graduates must achieve one or more of the following benchmarks:

Criteria	Documentation			Comments
	Full	Partial	None	
a. Earn one or more industry certifications or state occupational licenses, and/or demonstrate competencies on an assessment instrument recognized by postsecondary institutions such as CLEP examinations, collaboratively designed or mutually approved end-of-course tests, college placement tests, or student portfolios reviewed by a team of college and high school faculty; **or**	X			
b. Earn at least nine transferable college credits as defined in the Early College Scholars program (includes dual enrollment, AP and other options); **or**	X			
c. Earn an Associate Degree.	X			
Comments:				

E.4. Significant work-based experience must be included representing additional instruction or training beyond the classroom such as:

Criteria	Documentation			Comments
	Full	Partial	None	
a. Cooperative Education; **or**			N/A	
b. Internships; **or**	X			
c. Job Shadowing; **or**	X			
d. Mentorships; **or**	X			
e. Project-based learning; **or**	X			
f. Service learning; **or**			N/A	
g. A combination of the above.				
Comments:				

F. Length of program and daily schedule
Governor's Academies for Health Sciences are defined by program content, not by the location or delivery system of courses. Evidence of the following must be submitted:

Comments	Documentation			Comments
	Full	Partial	None	
Designation of full-day or part-day, academic-year program.	X			

G. Assurance from the fiscal agent that on-going operating funds and facilities are available to support the Governor's Academy for Health Sciences and are adequate to meet the needs of the program.

Evidence	Documentation			Comments
	Full	Partial	None	
	X			

H. Materials and equipment to be provided to accomplish program goals and objectives.

Evidence	Documentation			Comments
	Full	Partial	None	
	X			

I. A brief description of the proposed program, including:

Criteria	Documentation			Comments
	Full	Partial	None	
1. A review of the Academy's policies, procedures, and outcomes;	X			
2. A review of the program design and instructional delivery;	X			
3. Consideration of feedback from students, staff, parents, the community, and partnership members, and	X	X		
4. Annual collection and reporting of data to the Department of Education related to student achievement, goal achievement, and other indicators.	X			
Comments:				

IV. Administrative Procedures

Each Governor's Academy for Health Sciences must develop and maintain procedures developed cooperatively with participation partners. There should be evidence of procedures in the seven areas that follow:

A. Partnerships – The role of business and industry, public school divisions, health science related agencies, and postsecondary institutions in the partnership, and where appropriate, should include the role of work force and economic development entities.

Evidence	Documentation			Comments
	Full	Partial	None	
	X			
Comments:				

B. Student recruitment, selection criteria, and admissions.

Evidence	Documentation			Comments
	Full	Partial	None	
	X			
Comments:				

C. Code of student conduct and attendance.

Evidence	Documentation			Comments
	Full	Partial	None	
	X			
Comments:				

D. Transportation provided by the appropriate school division is in compliance with all applicable federal and state regulations.

Evidence	Documentation			Comments
	Full	Partial	None	
	X			Students zoned outside of the Monticello High School district will provide own transportation.
Comments:				

E. Staff recruitment, selection, and assignment – The Governor's Academy for Health Sciences shall hire staff members who meet the Virginia teacher licensure requirements and/or postsecondary faculty qualifications. Where applicable, they must have industry-specific education with training and experience, including industry certification.

Evidence	Documentation			Comments
	Full	Partial	None	
	X			
Comments:				

F. Staff development – The program will provide appropriate staff training in addition to staff instructional planning time.

Evidence	Documentation			Comments
	Full	Partial	None	
	X			
Comments:				

G. Staff evaluation – Staff will be evaluated according to the human resources policies of the agency or institution employment Academy personnel.

Evidence	Documentation			Comments
	Full	Partial	None	
	X			
Comments:				

H. Parent, student and community involvement

Criteria	Documentation			Comments
	Full	Partial	None	
1. Preparation for entering the Academy should begin by eighth grade.	X			
2. Students, parents, teachers, and school counselors should work collaboratively to: a. Complete career interest inventories;	X			
b. Prepare academic and career plans outlining an intended course of study in high school;	X			
c. Review multiple postsecondary pathways and the steps required to pursue them;	X			
d. Participate in career assessments to identify areas students should strengthen to qualify for their selected health science pathway; and	X			
e. Discuss available diplomas, seals and other recognitions including admission to specialized programs such as Governor's Academies.	X			
Comments:				

V. Documentation of insurance, budget, and other fiscal information:

Criteria	Documentation			Comments
	Full	Partial	None	
Insurance	X			
Budget (from appendix)	X			
Budget Narrative	X			
Other				
Comments:				

Albemarle County Public Schools

Governor's Health Sciences Academy

Monticello High School

Governor's Health Sciences Academy
Monticello High School

I. Partnership Capacity

The proposed Monticello High School Governor's Health Sciences Academy will be established to provide opportunities for all students enrolled in Albemarle County Public Schools (ACPS). Students will apply to the Academy, and if they are accepted, they will enroll as students at Monticello High School and complete coursework required for graduation from the Governor's Health Sciences Academy. The Academy is established to provide opportunities for all students enrolled in the school division. They will attend the Academy and participate in course offerings offered at Monticello for the remaining coursework required for graduation.

An Advisory Board composed of educational professionals, community partners, and parents will convene bimonthly throughout the planning stages for the Academy. The Planning Committee will meet weekly and as needed throughout the planning stages of the Academy.

This proposal incorporates rigorous academic content with Career and Technical Education courses and consists of partnerships with:

- The University of Virginia Healthcare System
- Martha Jefferson Hospital
- The University of Virginia
- Piedmont Virginia Community College
- Charlottesville/Albemarle Technical Education Center
- Virginia Biotechnology Association
- Defense Intelligence Agency
- Biotechnology businesses
- Private healthcare businesses.

(See Appendix A –Advisory Board and Planning Committee Signed Documents)

The Advisory Board and Planning Committee members' experiences, career roles, and personal understanding of specific healthcare skills and knowledge will provide the best guidance of, and opportunities for, students' success at the Monticello High School Governor's Health Sciences Academy.

The Planning Committee for the Monticello High School Governor's Health Sciences Academy has reviewed the provisions of the Administrative Procedures Guide for the Establishment of a Governor's Health Sciences Academy and agrees to follow the guidelines set forth in the document. (See Appendix B-Statement of Assurances)

Monticello High School will partner with middle schools and high schools within Albemarle County. Students enrolled in the Albemarle County School system are eligible to apply to the Governor's Health Sciences Academy.

II. Need/Rationale for the Academy

WHY a Health and Medical Sciences Academy?

Data from the United States Department of Labor – Bureau of Labor Statistics - show health care is one of the fastest growing occupations that will generate 3.2 million new wage and salary jobs between 2008 and 2018. Data from the Virginia Employment Commission show short-term and long-term projections in the healthcare industry that indicate a great increase in need for health-related occupations in the Charlottesville Metropolitan Statistical Area Community Profile alone. Projected job growth in several healthcare fields is expected to increase and they include: registered nurses by 26 percent, dentists, physical therapists, pharmacists, and optometrists. Several reasons for this increase include the aging of baby boomers and the need for the increasing use of medicine and insurance companies' coverage. Long-term projections in the Charlottesville area show an increase of 23.67 percent (8,104 job openings) in Healthcare Practitioner & Technical Occupations; additionally, an increase of 39.99 percent (4,478 job openings) in Health Support Occupations between 2008 and 2018. Student interest at Monticello High School, according to the results obtained from PSAT data for the Class of 2013 indicates that 57 out of 228 students are interested in pre-health professions to include pre-med, nursing, sports medicine, physical therapy, pre-vet, etc.

The Health and Medical Sciences Academy began operation in August 2012 and serves students interested in exploring health science career opportunities. The curriculum, which delivers a foundation for both postsecondary education and work force readiness in health-related professions, is technology-focused, using case studies, integrated projects and internships to enrich learning. The division supports the need for the Academy. As our population ages and with the expansion of access to medical care, health and medical care professions not only will be a source of employment, but also for high quality medical care delivery. Our designation as a regional Governor's Health Services Academy recognizes the visionary work being done in our classrooms and laboratories and the importance of our mission to the community.

General Information:

The Academy is designed to revolutionize the way health and medical sciences will be taught in the future. Our goals include (1) exciting students at elementary and middle school levels about health and medical science as a profession, (2) increasing student exposure to a broader range of career opportunities in health and medical science-this is about much more than becoming a medical doctor, (3) exploring anatomy and physiology in order to prepare students for the rigors of collegiate anatomy and physiology course, and (4) providing opportunities for preparation and practice via clinical rotations and internships. Students enrolled in the Academy will engage in lessons and activities that will provide opportunities for students to demonstrate workplace readiness skills for the Commonwealth. These "soft skills" learned will be essential for student success in clinical rotations and internships. The importance of a strong industry participation

would be to help shape curriculum, drive professional skills to make students' work force ready, and provide case studies and internships.

This unique Academy will offer integrated curriculum and opportunities for individualized points of access to curriculum offered at Monticello High School. Once students select their career pathway, students will be provided with instructional opportunities that prepare them for the challenges they will face after high school graduation. Students will participate in engaging learning opportunities that support critical thinking, problem solving, teamwork, and lifelong learning. Students will engage in case study work, as well as participate in job shadowing and clinical opportunities.

Albemarle County Public Schools will serve as the fiscal agent. The school division has multiple high schools and the Governor's Health Sciences Academy is established for students from across Albemarle County. Ongoing operating funds and facilities are available to support the Governor's Health Sciences Academy and are adequate to meet the needs of the program.

III. Program Description

A. A statement of program goals

The Monticello High School Governor's Health Sciences Academy's mission will be to empower students to use 21st century skills while exploring health science career opportunities. The program will provide students a foundation for postsecondary education or work force readiness in certified health-related professions. Students will explore core content with technology through integrated projects, case studies, and focused learning experiences.

Students will gain the knowledge and skills they need to succeed in technologically rich workplaces by learning how to work in teams, communicate effectively, and apply the principles of science, technology, engineering, mathematics, and health care. Students will choose specific career pathways in health sciences: Therapeutic Services, Diagnostic Services, Health Informatics, Support Services, and Biotechnology Research and Development. (See Appendix C-Individualized High School Plans.)

The Monticello High School Governor's Health Science Academy is designed to give students in ninth through twelfth grades the opportunity to explore several career paths while incorporating *Virginia's Workplace Readiness Skills for the Commonwealth*. Career pathways are designed to prepare students from programs leading to bachelor's degrees, two-year associate's degrees, apprenticeships, and employment. For the 2012-13 academic year, the Health and Medical Sciences Academy at Monticello High School enrolled 25 students; in the 2013-14 academic year, the proposed Governor's Health Sciences Academy will enroll an additional 75 students by year four. By working with our various partnerships, our goal is to provide well-trained workers to support the recruitment of new businesses and industries to Virginia and the Albemarle County area and to meet the needs of existing business and industry.

Course Sequence

Students enrolled in the Governor's Health Sciences Academy will participate in the following courses/opportunities.

Career Pathway	9th Grade	10th Grade	11th Grade	12th Grade
Therapeutic Services	Principles of Biomedical Sciences (8379) Health 9 Biology Biotechnology Foundations (9050)	Human Body Systems (8380) Chemistry	Medical Terminology (8383) and/or DE or AP Psychology	Internship
Diagnostic Services	Principles of Biomedical Sciences (8379) Health 9 Biology Biotechnology Foundations (9050)	Human Body Systems (8380) Chemistry	Medical Terminology (8383) and/or DE or AP Psychology	Internship and/or Research Project
Health Informatics	Principles of Biomedical Sciences (8379) Health 9 Biology Biotechnology Foundations (9050)	Human Body Systems (8380) Chemistry	Medical Terminology (8383) and/or DE or AP Psychology	Internship/Cooperative Education and/or DE Principles of Information Systems, ITE 120 (6669)
Support Services	Principles of Biomedical Sciences (8379) Health 9 Biology Biotechnology Foundations (9050)	Human Body Systems (8380) Chemistry	Medical Terminology (8383) and/or DE or AP Psychology	DE Principles of Information Systems, ITE 120 (6669)
Biotechnology Research and Development	Principles of Biomedical Sciences (8379) Health 9 Biology Biotechnology Foundations (9050)	Human Body Systems (8380) Chemistry	DE or AP Psychology and/or Research Project Statistics	Internship or Research Project AP Biology and/or AP Chemistry AP Calculus

Related Industry Certifications

Students will have the opportunity to earn industry certifications in the following career clusters:

Therapeutic Services:

Dental Assisting Assessment (NOCTI)
Radiation Health Safety
Infection Control
Emergency Medical Technician
Virginia Pharmacy Technician
Certified Nursing Assistant I
Virginia's Workplace Readiness Skills for the Commonwealth

Diagnostic Services:

Dental Assisting Assessment (NOCTI)
Radiation Health Safety
Infection Control
Virginia's Workplace Readiness Skills for the Commonwealth

Health Informatics:

Virginia Pharmacy Technician
Virginia's Workplace Readiness Skills for the Commonwealth

Support Services:

Dental Assisting Assessment (NOCTI)
Radiation Health Safety
Infection Control
Virginia Pharmacy Technician
Virginia's Workplace Readiness Skills for the Commonwealth

Biotechnology Research and Development:

Virginia's Workplace Readiness Skills for the Commonwealth

B. A statement of program objectives and performance measures

1. Improve student academic achievement.

Program objectives to meet criteria

a. Establish a community of learners
b. Create common Mustang Morning time for remediation and/or enrichment for all Academy students
c. Provide tutoring before and/or after school
d. Increase communication between teachers/counselors/administration of Academy students

Performance measure(s)

a. Evaluate longitudinal data of Academy students within each academic year and throughout next four years
b. Compare achievement data of students within the Academy to students with similar demographics outside of the Academy
c. Students enrolled in the Academy will earn grades at a C or higher and will maintain a GPA of 2.5 or higher

2. Increase completion of dual enrollment courses.

Program objectives to meet criteria

a. Establish rigor to prepare students for the COMPASS test
b. Partnership with Piedmont Virginia Community College will enhance the curriculum and increase college readiness

Performance measure(s)

a. Increase the number of postsecondary credits earned through dual enrollment and Advanced Placement courses by five percent over the next four years

3. Provide work-based learning experiences for students through strong partnerships with businesses.

Program objectives to meet criteria

a. Establish placements for Academy students to participate in mentorship, internship, and/or job shadowing experiences during their junior and/or senior year
b. Establish research opportunities for students.

Performance measure(s)

a. Ensure that 100 percent of students participate in work-based learning experiences, through strong partnerships with businesses and organizations.

4-5. Increase high school graduation rates/Reduce dropout rates.

Program objectives to meet criteria

a. Create career-oriented curriculum to show the importance of education and make connections between the curriculum and the career
b. Continue to meet individual needs of students to provide additional support required to encourage and engage students
c. Increase exposure to various careers.

Performance measure(s)

a. Increase our school's high school graduation rate by five percent over the next five years
b. Reduce the school's high school dropout rate by five percent over the next five years.

6-8. Increase enrollment and retention in postsecondary education/Increase the proportion of students completing a college and career readiness curriculum in high school/Reduce the proportion of students requiring remediation in college.

Program objectives to meet criteria

a. Enroll students in higher-level coursework through dual enrollment and/or Advanced Placement courses
b. Enroll students in courses required to complete general education requirements for PVCC
c. Enroll students in CTE courses which lend themselves to career pathways in order to make strong connections between instruction and careers
d. Monitor student achievement and provide academic support to Academy students when necessary
e. Foster partnership with PVCC.

Performance measure(s)

a. Increase the proportion of students completing a college and career curriculum in high school by increasing enrollment and completion rates annually by five percent in specified career pathway courses.

9. Increase the number of industry certifications awarded to high school students.

Program objectives to meet criteria

a. Provide opportunities for training to increase student performance on industry assessments
b. Administer industry certification assessments.

Performance measure(s)

a. Ensure that 100 percent of Academy students receive and pass industry certification assessments.

10. Increase the number of graduates employed in high-wage, high-demand, and high-skill health sciences careers.

Program objectives to meet criteria

a. Expose students to various careers in health sciences
b. Provide mentors from the community to assist students with career plans and provide an understanding of the various opportunities.

Performance measure(s)

a. Increase the number of Academy graduates employed in high-wage, high-demand, and high-skill careers; prior to graduation, students will complete a survey to indicate postsecondary plans and career interests.
b. Use the results from the Weldon Cooper Center CTE survey as an indicator for Academy graduates employed in high-wage, high-demand and high-skill careers. This information will indicate to the division whether or not the hiring of graduates for such careers has risen. The division will be involved with the state's longitudinal data system.

C. A brief description of the proposed program

Governor's Health Sciences Academy

Site Location: Monticello High School, 1400 Independence Way, Charlottesville, VA 22902

Number of students to be served: Students will apply to the Academy during their eighth-grade year. Students will enroll in the Academy during their ninth-grade year. The proposed Governor's Health Sciences Academy will serve 70-75 students in 2013-14. Each year following, the Academy will serve an additional 50 students, with full enrollment during the 2017-18 academic year of 200 students.

Grade level: The Academy will serve students in grade 9-12.

Curriculum Design: Sample plans of study are included in Appendix C. Upon completion of high school coursework, students will earn credits in Career and Technical Education, dual enrollment or Advanced Placement courses, and other academic coursework required by the Virginia Department of Education. Students will have an opportunity to earn two or more industry certifications and nine or more transferable college-level credits. Coursework is designed to prepare students for postsecondary education and regional work force demands in high-wage, high-skill occupations as identified by data from the Virginia Employment Commission, Weldon Cooper Center for Public Service, and Governor's Health Sciences Academy planning committee and advisory board. Students will participate in career interest surveys to determine career pathway courses.

List of courses to be delivered:

Students may complete study in the following courses in the Monticello High School Governor's Health Sciences Academy: Biology, Principles of Biomedical Science (8379), Health 9, Biotechnology Foundations (9050), Chemistry, Human Body Systems (8380), dual enrollment or AP Psychology, dual enrollment Microbiology, dual enrollment Medical Terminology, AP Biology and/or AP Chemistry.

Course Descriptions:

- **Integrated Principles of Biomedical Sciences (8379), Health 9 , and Biology (4310)**
  The course curriculum is integrated and will explore content from the core areas through the lens of Health and Medical Sciences. The goal of this course is to provide an opportunity for students to pursue their interests and prepare for a career in health and medical sciences. Students will be exposed to various professions in the health care field, participate in field trips and case studies as they explore opportunities of interest. Students are taught concepts of human physiology, medical innovation, water contamination, public health issues, molecular biology, and forensic autopsy. Students complete an independent project as a culminating activity.
- **Biotechnology Foundations (9050)**
  Students gain foundational knowledge and skills appropriate for health and medical research including a variety of medical-related career paths in the field of medical technology. Students will address problems that can be tested using the scientific method. The scientific method is an inquiry process used to systematically study, investigate, and provide explanations for observed phenomenon in the natural world. Students 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.
- **Human Body Systems (8380)**
  Students explore the human body systems of communication, power, and movement. To do this, students are taught the body's components, tissues, molecules, and cells, as well as concepts of homeostasis and body system defenses. Students will complete case studies, participate in field trips and will continue to explore career opportunities in Health and Medical Sciences.
- **Chemistry (4410)**
  Students are introduced to basic chemical concepts including composition of matter, atomic structure, periodic table, chemical bonding, formulas and equations, reacting quantities, gas laws, and acid base theory. The investigative skills used by practicing scientists are emphasized. This course is taught through the lens of medical science in order to further familiarize students to new opportunities of interest.
- **AP Psychology (2900)**
  This course provides an introduction to the psychological topics and principles taught in an introductory psychology class at the college level. Specific topics addressed include: the biological bases of behavior, sensation and perception, states of consciousness; learning, memory, and intelligence; language development; motivation and emotion; human development; personality theory; social psychology abnormal psychology and

methods of therapy; current issues; and applications of the discipline. Emphasis will be placed on reading and writing, evaluating and conducting research, and completing independent projects.

- **Dual Enrollment Principles of Psychology (PSY 200)**
  This course surveys the basic concepts of psychology. The course covers the scientific study of behavior, behavioral research methods, and analysis and theoretical interpretations. Included are topics that cover physiological mechanisms, sensation/perception, motivation, learning, personality, psychopathology, therapy, and social psychology. This course fulfills general education requirements for students interested in earning their Associate of Applied Science Degree in Diagnostic Medical Sonography at PVCC.
- **Dual Enrollment Developmental Psychology (PSY 230)**
  This course allows students the opportunity to study the development of the individual from conception to death. The course follows a life-span perspective on the development of the person's physical, cognitive, and psycho-social growth. This course fulfills general education requirements for students interested in earning their Associate of Applied Science Degree in Nursing at PVCC.
- **Dual Enrollment English 111/112**
  This college-level course develops the students' ability to write and read effectively for study, work, and pleasure. Students read prose, fiction, drama, and poetry. They also compose essays, letters, abstracts, annotations, and other nonfiction prose. Emphasis is placed on short narrative works. Students work extensively in each area of the writing process and learn to employ writing conventions while developing individual voice and style. Students write extensively, with emphasis on response to literature and writing for a variety of audiences and purposes. Through these writing experiences, students synthesize information, develop individual voice and style, and better understand literary technique.
- **AP Biology (4340)**
  The AP Biology course is designed to be the equivalent of the general biology course usually taken during the first college year. For some students, this course enables them to undertake, in their first year, second-year work in the biology sequence at their institution or to register in courses in other fields where general biology is a prerequisite. For other students, the AP Biology course fulfills the laboratory science requirement and frees time for other courses.
- **AP Chemistry (4440)**
  The AP Chemistry course is designed to be the equivalent of the general chemistry course usually taken during the first college year. For some students, this course enables them to undertake, in their first year, second-year work in the chemistry sequence at their institution or to register in courses in other fields where general chemistry is a prerequisite. For other students, the AP Chemistry course fulfills the laboratory science requirement and frees time for other courses.
- **AP English (1196)**
  This highly rigorous course concentrates on reading and analyzing historical material, weighing historical evidence and interpretation, and synthesizing and evaluating information in analytical writing. Students study American literary eras, reading from a variety of disciplines and contexts. They compose for a variety of purposes and

audiences. Reading and writing experiences help students understand the concepts of communication, individual development and identity, aesthetics, and universality.

- **AP English (1195)**
  This highly rigorous course is conducted much like a college seminar, and therefore it requires high-quality work in and out of class. Students read works of literature analytically and critically, and they respond with increasing sensitivity and discrimination of language. Essays focus on literary analysis but students have some opportunity to practice creative writing.
- **AP Calculus (3177)**
  This course is concerned with developing the student's understanding of the concepts of calculus and providing experience with its methods and application. It emphasizes a multi-representational approach to calculus with concepts, results, and problems being expressed geometrically, numerically, analytically, and verbally. Technology is used regularly by students to reinforce the relationships among the multiple representations of functions, to confirm written work, to implement experimentation, and to assist in interpreting results.
- **AP Statistics (3192)**
  Topics for the course are grouped around four themes – exploratory analysis, planning a study, probability, and statistical inference. Within each theme, the topics stress statistical thinking and use of technology, primarily the graphing calculator and computers with appropriate software.
- **Dual Enrollment Microbiology (NAS 185)**
  This course allows students the opportunity to survey microorganisms, presenting their characteristics and activities as related to health and disease. Students will participate in hands-on laboratory activities. This course fulfills general education requirements for students interested in earning their Associate of Applied Science Degree in Nursing at PVCC.
- **Dual Enrollment Medical Terminology (8383)**
  This course is designed to help students learn health care language. Topics are presented in order beginning with each body system's anatomy and physiology and progressing through pathology, diagnostic procedures, therapeutic interventions, and finally pharmacology. Students learn concepts, terms, and abbreviations for each topic.
- **Dual Enrollment Sports Medicine 1 (7686)**
  This course provides students with the basic concepts and skills required for careers in sports medicine such as athletic training, physical therapy, medical physician, exercise physiology, and occupational therapy. 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.
- **Dual Enrollment Sports Medicine 2 (7687)**
  This course continues the studies of Sports Medicine 1. Students learn advanced concepts and skills required for careers in sports medicine.

Description of how/where courses will be delivered: Courses for students enrolled in the Governor's Health Sciences Academy may take place at one of the following locations: Monticello High School (offering dual enrollment and Advanced Placement courses as well as

various courses in CTE), Charlottesville/Albemarle Technical Center, Piedmont Virginia Community College, and/or the University of Virginia. Online courses may be options for students who show interest.

Designation of full-day or part-day, academic-year program: The Academy will serve students for part of their day. Students enrolled in the Academy will complete work for their Academy courses as a cohort during their ninth- and tenth-grade years. The remaining academic and elective courses will be provided at Monticello High School. During their eleventh- and twelfth-grade years, students will participate in courses designed to increase their competiveness for post-high school opportunities. Coursework for students will be differentiated during these academic years. Students will also participate in internships, research, and other opportunities supported by the Albemarle/Charlottesville communities.

D. Evidence of participation in the Governor's Exemplary Standards Award Program for Career and Technical Education

The Monticello High School Governor's Health Sciences Academy will follow the Governor's Exemplary Standards Award Program for Career and Technical Education.

E. Program and Course Descriptions

During the first year of the proposed Monticello High School Governor's Health Sciences Academy, two well-articulated career pathways will be offered: Therapeutic Services and Biotechnology Research and Development. The remaining three pathways will be implemented within the next three years.

Students completing career pathways will earn industry credentials, postsecondary certificates, an advanced studies diploma, or an associate degree. Students will continue on their pathway to earn additional degrees at the associate, bachelor's, and/or graduate level of postsecondary education. All students will earn certification in *Virginia's Workplace Readiness Skills for the Commonwealth* before their high school graduation.

The data on the following page includes a spreadsheet of health care industry data in Albemarle County. There are approximately 5,500 health industry jobs in Albemarle County, not including hospitals (those data are suppressed to protect confidentiality). Additional jobs are available in the City. The spreadsheet includes occupational employment data recently released from the Virginia Employment Commission. The data provides Health Cluster data for Virginia and for the Workforce Investment Area. Occupations are sorted by pathway and by anticipated job openings.

Labor Market Data for Albemarle County, Data provided by the Weldon Cooper Center, University of Virginia

Occupation Titles In Health Sciences	Predominant level of education and training	Estimate 2010	Proj 2020	Number Change	Percent Change	Annual Job Openings	Annual VA Median 2011
Healthcare Practitioners and Technical Occupations		**191,430**	**240,333**	**48,903**	**26%**	**8,778**	**$57,720**
Health Diagnosing and Treating Practitioners		**114,952**	**144,887**	**29,935**	**26%**	**5,232**	
Health Technologists and Technicians		**71,969**	**90,383**	**18,414**	**26%**	**3,332**	
Other Healthcare Practitioners and Technical Occupations		**4,509**	**5,063**	**554**	**12%**	**214**	
Healthcare Support Occupations		**89,059**	**121,200**	**32,141**	**36%**	**4,506**	**$24,620**
Nursing, Psychiatric, and Home Health Aides		**50,200**	**70,890**	**20,690**	**41%**	**2,717**	
Occupational and Physical Therapist Assistants and Aides		**3,745**	**5,552**	**1,807**	**48%**	**239**	
Other Healthcare Support Occupations		**35,114**	**44,758**	**9,644**	**27%**	**1,551**	
Therapeutic Services							
Registered Nurses	Bachelor's or more	63,124	77,857	14,733	23%	2,615	$63,710
Nursing Aides, Orderlies, and Attendants	HS or less	35,725	46,108	10,383	29%	1,499	$23,240
Home Health Aides	HS or less	13,369	23,539	10,170	76%	1,189	$18,820
Licensed Practical and Licensed Vocational Nurses	Some college/Assoc	20,687	25,741	5,054	24%	1,057	$38,560
Medical Assistants	Some college/Assoc & Training/certification	10,044	13,568	3,524	35%	506	$29,330

Dental Assistants	Some college/Assoc	7,834	11,187	3,353	43%	499	$34,630
Pharmacy Technicians	Some college/Assoc & Training/certification	8,476	11,251	2,775	33%	425	$28,430
Physicians and Surgeons, All Other	Bachelor's or more & Training/certification	9,384	11,745	2,361	25%	422	$177,480
Pharmacists	Bachelor's or more	7,454	9,341	1,887	25%	379	$114,670
Dental Hygienists	Some college/Assoc	4,469	6,740	2,271	51%	317	$81,450
Physical Therapists	Bachelor's or more	4,838	6,707	1,869	39%	243	$79,620
Emergency Medical Technicians and Paramedics	Some college/Assoc	4,490	5,997	1,507	34%	241	$30,640
Dentists, General	Bachelor's or more & Training/certification	3,479	4,576	1,097	32%	213	$184,110
Family and General Practitioners	Bachelor's or more & Training/certification	2,968	4,027	1,059	36%	165	$150,180
Speech-Language Pathologists	Bachelor's or more	2,833	3,581	748	26%	129	$73,580
Veterinarians	Bachelor's or more	2,171	2,987	816	38%	125	$85,420
Occupational Therapists	Bachelor's or more	2,468	3,235	767	31%	124	$80,770
Physical Therapist Assistants	Some college/Assoc	1,698	2,539	841	50%	110	$51,100
Physician Assistants	Bachelor's or more	1,965	2,647	682	35%	105	$79,910
Respiratory Therapists	Some college/Assoc	2,340	2,864	524	22%	97	$55,580
Physical Therapist Aides	Some college/Assoc & Training/certification	1,362	2,036	674	49%	88	$22,000
Opticians, Dispensing	Some college/Assoc & Training/certification	2,016	2,481	465	23%	86	$39,080

Internists, General	Bachelor's or more & Training/certification	1,512	2,065	553	37%	85	$162,330
Psychiatric Technicians	Some college/Assoc	4,377	4,441	64	1%	82	$24,230
Surgical Technologists	Some college/Assoc	2,116	2,487	371	18%	74	$41,300
Chiropractors	Bachelor's or more	1,531	1,963	432	28%	73	$59,000
Dietitians and Nutritionists	Bachelor's or more & Training/certification	1,263	1,474	211	17%	65	$53,870
Optometrists	Bachelor's or more	845	1,150	305	36%	60	$108,910
Healthcare Practitioner/Technical Workers, All Other	Bachelor's or more	1,193	1,373	180	15%	60	$34,700
Anesthesiologists	Bachelor's or more & Training/certification	932	1,261	329	35%	51	#
Surgeons	Bachelor's or more & Training/certification	867	1,158	291	34%	46	#
Obstetricians and Gynecologists	Bachelor's or more & Training/certification	746	1,025	279	37%	43	#
Athletic Trainers	Bachelor's or more	520	718	198	38%	38	$40,080
Occupational Therapist Assistants	Some college/Assoc	545	811	266	49%	35	$57,750
Pediatricians, General	Bachelor's or more & Training/certification	611	817	206	34%	33	$158,030
Psychiatric Aides	HS or less	1,106	1,243	137	12%	28	$23,940
Health Diagnosing/Treating Practitioners, All Other	Bachelor's or more	583	703	120	21%	23	$74,180
Recreational Therapists	Bachelor's or more	404	461	57	14%	20	$38,890

Psychiatrists	Bachelor's or more & Training/certification	484	563	79	16%	18	$161,780
Therapists, all other	Bachelor's or more	510	580	70	14%	18	$49,540
Audiologists	Bachelor's or more	358	515	157	44%	18	$67,700
Dietetic Technicians	Some college/Assoc & Training/certification	530	599	69	13%	16	$24,140
Radiation Therapists	Some college/Assoc	400	457	57	14%	14	$71,340
Podiatrists	Bachelor's or more & Training/certification	280	346	66	24%	13	$109,380
Oral and Maxillofacial Surgeons	Bachelor's or more & Training/certification	187	246	59	32%	12	#
Dentists, All Other Specialists	Bachelor's or more & Training/certification	204	255	51	25%	11	$136,780
Orthotists and Prosthetists	Some college/Assoc	201	225	24	12%	6	$66,970
Occupational Therapist Aides	Some college/Assoc	140	166	26	19%	5	$26,440
Respiratory Therapy Technicians	Some college/Assoc & Training/certification	175	179	4	2%	3	$48,210
Diagnostic Services							
Radiologic Technologists and Technicians	Some college/Assoc	5,348	6,786	1,438	27%	227	$56,790
Medical and Clinical Laboratory Technicians	Bachelor's or more	3,601	4,338	737	20%	144	$36,340
Medical and Clinical Laboratory Technologists	Bachelor's or more	4,152	4,733	581	14%	139	$54,370

Health Technologists and Technicians, All Other	Some college/Assoc	2,917	3,503	586	20%	117	$33,840
Veterinary Technologists and Technicians	Some college/Assoc	1,338	2,044	706	53%	94	$35,470
Diagnostic Medical Sonographers	Some college/Assoc	1,201	1,681	480	40%	67	$67,250
Cardiovascular Technologists and Technicians	Some college/Assoc	1,506	1,908	402	27%	63	$58,300
Nuclear Medicine Technologists	Some college/Assoc	442	507	65	15%	13	$65,680
Medical Secretaries	Some college/Assoc & Training/certification	6,265	8,967	2,702	43%	354	$32,530
Health Informatics							
Medical Records and Health Information Technicians	Some college/Assoc	3,927	4,742	815	21%	161	$33,080
Medical Transcriptionists	Some college/Assoc	1,698	1,805	107	6%	37	$33,000
Support Services							
Medical and Health Services Managers	Bachelor's or more	6,287	7,644	1,357	22%	290	$87,610
Healthcare Support Workers, All Other	Some college/Assoc	6,197	7,239	1,042	17%	199	$30,850
Veterinary Assistants and Laboratory Animal Caretakers	Some college/Assoc	3,478	3,967	489	14%	102	$23,910
Pharmacy Aides	Some college/Assoc	763	946	183	24%	30	$22,120
Medical Equipment Preparers	Some college/Assoc & Training/certification	912	1,057	145	16%	28	$28,240
Biotechnology R&D							
Biomedical Engineers	Bachelor's or more	462	905	443	96%	54	$92,340
Medical Scientists, Except Epidemiologists	Bachelor's or more	994	1,423	429	43%	49	$86,660

Bioscience is included as one of the sectors identified by the Virginia Economic Development Partnership as key for Virginia which includes the pharmaceutical, medical device, and biotechnology sectors. According to the information provided by the Weldon Cooper Center health care is not on VEDP's list.

Health care is required everywhere and it is one of the largest industries in Virginia, and in Albemarle County it is the second largest industry – after Education. Registered nurses are the largest health care occupation by far in Virginia and in our area. Other large occupations are also nursing-related, including nursing aides and LPNs.

The table below shows the Career Pathways as they relate to programs offered at Monticello High School Governor's Health Sciences Academy.

Health Sciences Career Pathways	
	Courses offered at Monticello High School, PVCC, or CATEC
Therapeutic Services	Principles of Biomedical Sciences (8379) Biotechnology Foundations (9050) Human Body Systems (8380) Dental Assistant I (8328) Dental Assistant II (8329) Emergency Medical Technician I (8333) Emergency Medical Technician II (8334) Emergency Medical Technician III (8335) 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)
Diagnostic Services	Principles of Biomedical Sciences (8379) Biotechnology Foundations (9050) Human Body Systems (8380) Dental Assistant I (8328) Dental Assistant II (8329) Medical Terminology (8383) Sports Medicine I (7660) Sports Medicine II (7662)
Health Informatics	Principles of Biomedical Sciences (8379) Biotechnology Foundations (9050) Human Body Systems (8380) Medical Terminology (8383)

	Pharmacy Technician 1 (8305) Pharmacy Technician II (8306)
Support Services	Principles of Biomedical Sciences (8379) Biotechnology Foundations (9050) Human Body Systems (8380) Dental Assistant I (8328) Dental Assistant II (8329) Medical Terminology (8383) Pharmacy Technician 1 (8305) Pharmacy Technician II (8306)
Biotechnology Research and Development	Principles of Biomedical Sciences (8379) Biotechnology Foundations (9050) Human Body Systems (8380)

E2. List of Requirements and E3. Benchmarks

- Academy graduates will earn one or more industry certifications or state occupational licenses, and/or demonstrate competencies on an assessment instrument recognized by postsecondary institutions.
- Academy graduates will earn at least nine transferable college credits by enrolling in dual enrollment or Advanced Placement courses offered at Monticello High School and/or enrolling in college courses at the University of Virginia or Piedmont Virginia Community College.

E4. Work-based experience

The Governor's Health Sciences Academy will be a great place to discover a career. We are committed to providing our students with a rigorous academic and technical education that incorporates classroom learning and real-world work-based learning experiences. Program offerings will include:

Internships The internship program will be available to high-achieving juniors and seniors interested in advancing classroom knowledge and gain real-world application experience in the workplace. Internships may be paid or unpaid; one to three days per week. Students will be responsible for transportation to and from their internship sites.

Internship Requirements: In addition to maintaining a satisfactory attendance rate and a minimum 2.5 overall GPA, successful applicants maintain a minimum B average in their Academy courses.

Career Shadow Program Shadow-a-Health-Professional Day The University of Virginia Health System, School of Medicine, and School of Nursing shadowing event is an opportunity for Governor's Health Sciences Academy students and undergraduates to explore careers in health care, with an emphasis on the impact of diversity and inclusiveness on healthcare practice and research. http://www.virginia.edu/mlk/Shadowing_2013.html

Classroom Speakers Series Each year, classroom learning and career exploration is enhanced by special guest presentations made by industry leaders, science and technology professionals, specific career field experts, and current events speakers.

Field Trips and Tours Organized by teachers and the career specialist, field trips and tours provide off-site and hands-on learning experiences. Academy students will participate annually in the following opportunities: CBIC Tech Tour http://cvillebic.org/tech-tour, Shenandoah Valley Biotechnology Symposium, and various tours available by local industry leaders and private businesses.

Additional Training Opportunities Students will have additional opportunities available throughout the year, during spring and summer breaks. (1) PVCC Spring Break Health Sciences Academy, (2) Lebanon Valley College Health and Biomedical Sciences Summer Camp, and (3) The University of Virginia Medical Center and Martha Jefferson Hospital Junior Volunteer Program. Students interested in these opportunities will need to complete an application and submit for review in the winter/early spring prior to admission. (See Appendix D-Training Opportunities Beyond the Classroom for Students.)

F. Academy daily schedule

The Academy will serve students for part of their day. Students will participate in the Academy coursework for two blocks of their academic schedule within each Academy year. The remaining six blocks will be taught outside the Academy at Monticello High School or at a location that best serves their academic needs. (See Appendix E-Bell Schedules.)

G. Assurance from the fiscal agent

A statement of assurances has been signed by Albemarle County Public Schools Superintendent on behalf of the Governor's Health Sciences Academy stipulating that the Monticello High School Governor's Health Sciences Academy Planning Committee has reviewed provisions of Administrative Procedures Guide for the Establishment of Governor's Health Sciences Academies and agrees to follow the guidelines set forth in the document (See Appendix B-Statement of Assurances).

H. Materials and Equipment to be provided to accomplish goals and objectives

The Governor's Health Sciences Academy will utilize the initial grant funds to purchase additional equipment for each career pathway. Further, financial support will be provided by the school division, state equipment funds, donations from local industry and higher education partners, and the Carl D. Perkins Career and Technical Education Act of 2006 (Perkins IV).

Equipment purchased with state and federal funds will follow state purchasing guidelines, and will be selected from the state-approved equipment list for career and technical education programs. Equipment purchased through the Perkins Grant will meet all applicable grant regulations.

Since the program will be a partnership with local organizations that already have much of the required equipment, resource sharing agreements may be developed among the partnering organizations.

IV. Administrative Procedures

A. Partnerships

Albemarle County Public Schools has established community partnerships with the School of Medicine at the University of Virginia, U.Va. professors, Virginia Biotechnology Association, and Piedmont Virginia Community College to support and enhance instructional opportunities.

The Planning/Advisory Board will address the following goals:

1. Providing active guidance on an ongoing basis in order that the Academy forges a partnership among local hospitals, the University of Virginia, Piedmont Virginia Community College, local biotech partners, local medical offices, and Albemarle County Public Schools.
2. Developing a shared vision for an integrated and relevant curriculum that will engage students in problem solving, research and development, and outreach;
3. Providing advice on decisions to be made;
4. Making decisions on how to best proceed with events and/or activities; and
5. Bridging connections with our community to foster clinical opportunities and internships for our students.

Monticello High School is also working in collaboration with the middle schools and additional high schools in Albemarle County in order to share the vision and intent of the Academy and making students aware of the existence of this new opportunity for those interested in healthcare careers. Our goal is to inform students of the various opportunities available to students enrolled in the Academy.

B. Student recruitment, selection criteria, and admissions

All students must apply for admission to the Governor's Health Sciences Academy. The application process consists of basic demographic information, faculty and parent recommendations, and writing samples. Every application will be reviewed by a team of teachers and administrators. The review team uses a rubric to identify applicants qualified for the Academy. The team will meet at various times to determine students that will be accepted into the Academy based on the information provided from the applicant and recommendation forms as well as student responses received during interviews. The criteria used for selecting students will be adapted to the Governor's Health Sciences Academy. (See Appendix F-Application, Admissions Timeline, and Selection Criteria.)

C. Code of student conduct and attendance

The Monticello High School Governor's Health Sciences Academy's student discipline, attendance, and safety policies will conform to the policies and practices established by the Albemarle County School Board and/or the provider of services (i.e., college/university and business). (See Appendix G-Admissions Agreement.)

D. Transportation

Students who attend Albemarle County Public Schools and are accepted into the Governor's Health Sciences Academy at Monticello High School will be provided bus transportation if they are zoned to attend Monticello High School. Transportation will be provided by Albemarle County Public Schools Department of Transportation and will be in compliance with all applicable federal and state regulations. Students zoned to attend other high schools within the division must provide their own transportation to Monticello High School daily.

E. Staff recruitment, selection, and assignment

The Governor's Health Sciences Academy shall hire personnel who meet the Virginia teacher licensure requirements and/or postsecondary faculty qualification. ACPS Human Resources guidelines will be followed when recruiting and hiring personnel for the Academy.

F. Staff development

The Albemarle County Public School system provides opportunities for teacher participation in engaging professional development activities. To assist in providing high-quality Science, Technology, Engineering and Mathematics (STEM) instruction to prepare students for Academy coursework, Academy teachers will be provided with opportunities to participate in staff development focusing on STEM. Teachers will participate in summer institutes, conferences, workshops, and in-building professional development opportunities to expand their use of project-based and experiential learning strategies. Teachers will be required to integrate the content and strategies learned into classroom modules and lessons. Opportunities for learning

during the school year will be provided through observations of classroom instruction. Follow-up activities and resources will be provided and communicated with teachers. Teachers will be provided an instructional planning period. Training will support research-based instructional strategies to STEM curriculum. Where applicable, business partners will also assist in providing teacher training. Teachers will collaborate with postsecondary and business partners to create real-world STEM opportunities for students to apply what they have learned.

G. Staff evaluation

Staff will be evaluated according to the human resources policies of ACPS. ACPS's 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.

H. Parent, student, and community involvement

Parents, students, and the community will be actively involved in Academy program planning. Student and parent informational meetings, parent-teacher conferences, and business partnerships will be among the resources used to encourage student, parent, and community involvement with Academy initiatives.

Beginning in middle school, all prospective Academy students will have the opportunity to participate in pre-Academy programs, including site tours, open houses, and a half-day summer institute that will be coordinated by the Academy director.

Students will complete career assessments in middle school, and throughout high school, under the guidance of school counselors, college and career specialists, and classroom instructors who will monitor individual career pathways identified by the students.

During high school, students will work with school counselors to complete career assessments and create academic and career plans outlining intended courses of study. These career plans will be reviewed annually prior to course registration and adjusted as needed to meet the needs and interests of the student. Postsecondary pathways will also be reviewed and discussed. School admission requirements, industry certifications and credentialing options, career studies, associate or technical college degrees, and advanced college degree programs will also be reviewed with students and parents.

Local businesses and educational institutions will be instrumental in providing resources and opportunities for students enrolled in the Academy, while providing data that will be essential to ensuring that Academy program options are aligned with postsecondary education and industry needs.

V. Documentation of insurance, budget, and other fiscal information

Budget Narrative

A. Personnel - Total: $54,500

Director currently oversees the program and will spend 50 percent of their time supervising staff, overseeing implementation of curriculum, programs, and activities. $30,000 will be used to cover 50 percent of this individual's annual salary.

Faculty will create and implement lesson plans on a daily basis. Three sections of FTE will be used for teachers to instruct Academy students. $24,500 will be used to cover three sections for the coursework.

B. Staff Development - Total: $1,000

The Faculty will attend conferences in Virginia (VAST and ASCD conferences) in order to continue their work to improve teaching, learning, and leading the way. Three faculty members will attend one of the two conferences.

C. Summer Component Activities - Total: $3,000

Work over the summer includes writing curriculum to be used for Academy courses. Curriculum taught in the Academy will be through the lens of medicine and summer work will provide opportunities for faculty to create lessons that will be engaging to students interested in healthcare professions.

D. Materials and Supplies - Total: $2,500

Six EKG Probe sensors each costing $155 have been purchased. In addition, several new labs have been purchased from Carolina Scientific or Ward's Science in order to enhance the experiences of Academy students. Kidney dialysis labs, First Aid and CPR training materials, and biotechnology materials have been purchased.

E. Equipment - Total: $79,000

Students enrolled in the Academy will each receive a laptop. Each laptop is $600 and 50 laptops were purchased for this first year. Additional laptops were purchased for use in the classroom and for each STEM laboratory cart. Seven STEM laboratory carts were purchased in order to provide laboratory experiences in classrooms not equipped for such activities. $48,945 was invested in the purchase of STEM laboratory carts for the Academy curriculum.

F. Facilities - Total: $60,000

Renovations to Monticello HS continue in order to facilitate the Academy's student's flexibility within the classrooms and the Academy space. Accommodations are being implemented to allow students an area for collaboration at various times during the school schedule. The renovations incorporate furniture and space allocation to encourage the students to gather in support of projects and classwork on a flexible basis.

In-Kind – Advisory Board members will allocate time to meet four times during the academic year. Within this funding, 40 members have been included at $100 for their time. The remaining amount is allocated for various time committed throughout the year for guest speakers, UVA students travel, time and expenses, as well as field experiences. (See Appendix H for Budget.)

(See Appendix I for Insurance.)

APPENDICIES