COMMONWEALTH of VIRGINIA

DEPARTMENT OF EDUCATION
P.O. BOX 2120
RICHMOND, VA 23218-2120

College Partnership Laboratory School Standing Committee Members:

The Virginia Department of Education (VDOE) review committee, consisting of subject matter experts have reviewed the application and affirm that all required elements of the application, including the school's educational program, governance, management structure, financial plan (including sustainability plan), placement plan, and other assurances have been provided. Additional, specific review has been conducted by the agency's curriculum and policy teams.

More specifically, this application meets all needed requirements associated with the school's proposed curriculum and graduation requirements.

This application is complete and compliant.

Andrew Armstrong, Ph.D., Assistant Superintendent of Strategic Innovation

Jason Ellis, Director of Assessment

Jason A. Ellis

Jason A. Ellis (Apr 29, 2024 07:56 EDT)

Melissa Velazquez, Assistant Superintendent of Policy and Government Relations

Samantha Hollins, Ph.D., Assistant Superintendent, Department of Special Populations

Samantha Marsh Hollins

COMMONWEALTH of VIRGINIA

Office of the Attorney General
Richmond 23219

202 North Ninth Street
Richmond, Virginia 23219
804-786-2071
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Jason S. Miyares

MEMORANDUM

TO: Joan Wodiska, Chair
Standing Committee on College Laboratory Partnership Schools
Board of Education

FROM: Deborah A. Love DAL
Senior Assistant Attorney General

DATE: April 29, 2024

SUBJECT: Review of College Partnership Laboratory School Application:
George Mason University – Shenandoah Valley Rural Regional Lab School

The Office of the Attorney General (OAG) has completed its review of the revised application to establish a college partnership laboratory school, received from George Mason University for its partnership with Frederick County Public Schools and others (version named "GMU-Shenandoah Lab School Application Updated April 25_2024.pdf"). An earlier version of this application was also reviewed by OAG, with feedback to the Department on April 24.

In my view, all comments made by OAG have been satisfactorily addressed. In my view, there are no legal impediments to the Standing Committee's consideration of this application. I note that my review does not embrace curricular considerations, the financial plan, or budgeting aspects of the proposal, nor do I offer any opinion as to the merits of the application. This assessment applies to the application reviewed, and not to any subsequent changes.

If you have any questions, please contact me at the address above, by telephone at (804)786-3807, or by electronic mail at dlove@oag.state.va.us.

Last revision: *January 8, 2024*

Virginia College Partnership Laboratory School Application

Approved by the Virginia Board of Education
July 26, 2012
Updated August 31, 2022
Updated June 30, 2023
Updated January 8, 2024

School Name: The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data Science Computing and Applications

Date of Submission to Virginia Board of Education: April 4, 2024

Name of Authorized Official: **Maggie Ewell** **Date:** **04/02/2024**

Signature of Authorized Offici DocuSigned by: Margaret B. Ewell 9D1F585A4DEA498... **Date:**

Application Completion Instructions & Mailing Information

All applicants for a college partnership laboratory school should read the College Partnership Laboratory School Application Process before completing the application. The process is available on the Virginia Department of Education's website at the following link: https://www.doe.virginia.gov/teaching-learning-assessment/specialized-instruction/laboratory-schools

Complete the cover page and insert the name of the college partnership laboratory school into the footer before completing the application. Each gray section in the document must contain a response.

Completed applications and supporting documents must be submitted to labschools@doe.virginia.gov. The Department may return or reject applications that are incomplete.

Note: The *Virginia Freedom of Information Act* (FOIA), § 2.2-3700 et seq. of the *Code of Virginia*, guarantees citizens of the Commonwealth and representatives of the media access to public records held by public bodies, public officials, and public employees. Please be advised that documents submitted to the Virginia Department of Education are subject to FOIA and must be released in response to a FOIA request unless the records are exempt as specifically provided by law.

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Part A: Applicant Information

School Information

Lab School Name: **The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data Science, Computing and Applications**

Proposed Opening Date**: August 15, 2024**

Grades to be Served for the Full Term of the Contract (Check All That Apply) *			
Pre-K	☐	Sixth Grade	☐
Kindergarten	☐	Seventh Grade	☐
First Grade	☐	Eighth Grade	☐
Second Grade	☐	Ninth Grade	☐
Third Grade	☐	Tenth Grade	☑
Fourth Grade	☐	Eleventh Grade	☑
Fifth Grade	☐	Twelfth Grade	☑

*If the college partnership laboratory school intends to add or change grade levels at some point during the school's operation, provide this information in the education program section of the narrative.

If the college partnership laboratory school is going to have a specialized focus (e.g., Science, Technology, Engineering, Mathematics [STEM], at-risk students, special education, career and technical education, gifted education), describe the specialized focus and why this focus was chosen to address the needs of students in your location:

The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data Science, Computing and Applications (DCSA) led by George Mason University (GMU) is a collaborative project with seven partner school districts, one Governor's School and Laurel Ridge Community College (LRCC) in the Shenandoah Valley. The specialized focus this opportunity will include engaging hundreds of students from these ***rural and rural*** fringe districts access to Dual Enrollment Pathways in DCSA as well as create new teacher professional learning opportunities to build capacity in the Valley for high school teachers to teach Data Science and/or Computer Science elective courses. The seven-partner rural and rural fringe school divisions including *Clarke County, Fauquier County, Frederick County (Lead K-12), Page County, Shenandoah County, Warren County and Winchester City* along with the Governor School at Mountain Vista. GMU will leverage the expertise from faculty in the College of Science, College of Engineering and Computing, GMU Smithsonian Mason Conservation Center (SMSC), Laurel Ridge Community College (LRCC) and Shenandoah University (SU) to engage the students and teachers in this GMU-DSCA Lab School.

Why the focus on DSCA?

First, timely and effective use of data and computing provides a significant competitive advantage in today's society. All sectors including manufacturing, retail, healthcare, agriculture, education and more are using data-driven insights to respond to changes in markets, improve decision-making and operate more efficiently. With a need to expand the talent pool to address workforce needs, we need to create new programs designed to help students add DSCA expertise to their skillset while also helping community-based and nonprofit organizations take advantage of the data they possess. Also, with new developments on the new high school Data Science course, approved curriculum and Data Science Standards of Learning, Virginia's Students need to get ready for new post-secondary pathways in Data Science. Virginia was already well on its way to becoming a national leader on Data Science and Literacy.

Also, with Governor Youngkin's Executive Order on Artificial Intelligence issued in January 2024 (EO-30), the need to prepare the next generation workforce in the Commonwealth on opportunities presented by AI innovations from Data Science and Computing now becomes even more important. As the guidelines from EO-30 indicates "*Artificial intelligence (AI) brings tremendous potential to transform education at all levels. By enabling more efficient, universal, and deeper learning, AI can unlock new realms of knowledge that were previously unimaginable. This emerging technology promises to catalyze business innovation and economic growth for the Commonwealth. Virginia is well-positioned for this new era. The most critical national security and military intelligence institutions in the United States are headquartered in Virginia and the Commonwealth's colleges and universities lead the nation in technology research and development."* The innovative DSCA curriculum we propose will help to address some of these AI components through the college-credit coursework included. Also, aligning this novel DSCA coursework with DSCA apprenticeship and micro-credentialing opportunities, this proposal will help to support the EO-30 guidelines as well.

Why focus on the Shenandoah Valley?

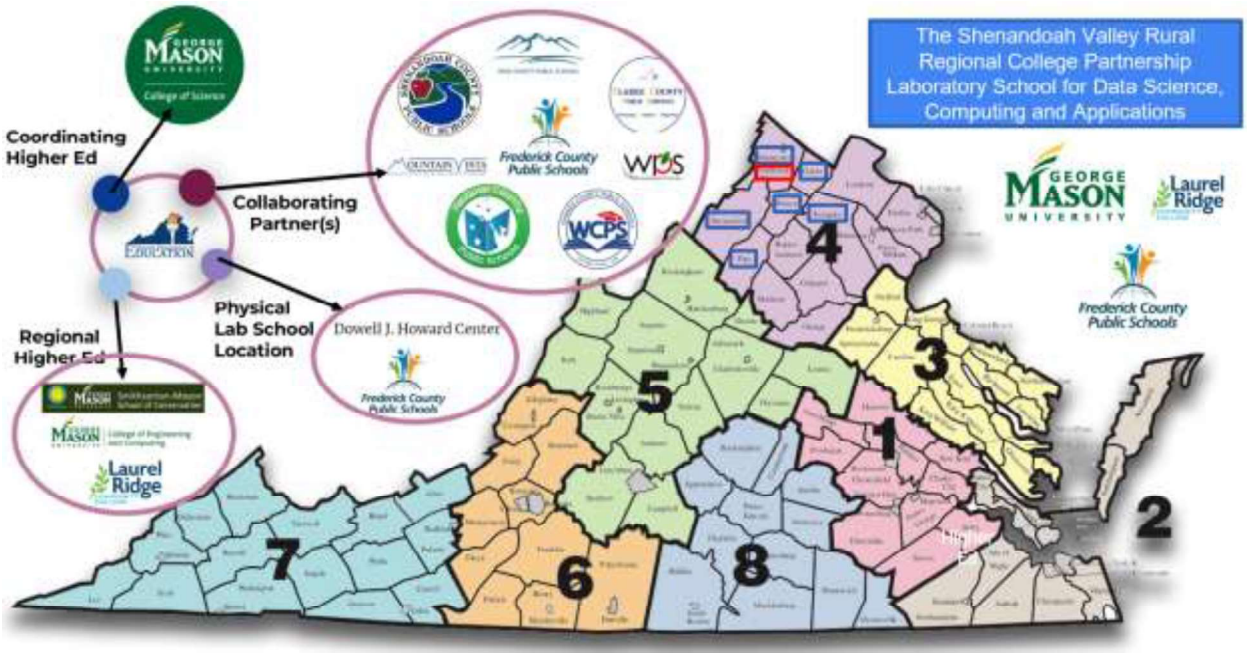
Rural schools face unique challenges when it comes to providing high-quality education environments for students. Limited tax bases, declining enrollments, and geographic isolation can all contribute to difficulties in maintaining and upgrading school facilities in rural communities. Right now, many rural communities in the United States are unable to find this on their own and need help and such insights also reinforce that the inequities faced by many rural schools extend to the physical spaces where teaching and learning happen each day. Targeted facilities investments such as the VDOE College Partnership Lab School opportunities could pay dividends in improving rural education.

Rural and Rural-fringe districts such as Shenandoah Valley are an often-overlooked part of the complex American education system, even though about 10 million students—or one in five nationally—attend a rural or a rural-fringe school. These districts are typically disregarded because of their small populations compared with larger single districts in more urban areas. Our proposed DSCA School will engage all components of the learning process—teachers, students, and families and cultivate positive bonds between each of these components. The proposed school will also help to equip the teachers with design learning experiences that fit the needs of their students in the lab school at Frederick County Public Schools and all the partner districts through project-based learning experiences in DSCA.

The proposed lab school will help build on successful best practices these regional partners have already established through two back-to-back Advancing Computer Science Education grants led by PI Dr. Padmanabhan Seshaiyer from GMU and Co-PI Dr. Deborah Crawford from Frederick County Public Schools and funded by the Virginia Department of Education (VDOE) that helped to enhance a regional partnership to create Shenandoah Valley Computer Science Regional Partnership which has impacted about 400 teachers and over 700 students in four years. As a part of this program, they also helped to develop a micro-pilot lab school component within this project where over 50 high school students over two years had the opportunity to engage in capstone projects, earning college credits, in the areas of DSCA.

If the college partnership laboratory school is going to be in partnership with local school division(s), name the school division(s) and describe the agreement between all the parties. Provide a copy of the agreement that set the terms and conditions of the relationship(s), including the distribution of responsibilities of the partnership briefly.

The proposed GMU College Partnership Lab School is illustrated in Figure below.



The proposed GMU College Partnership Lab School will be hosted physically at the **Dowell J. Howard** which is a rural public school in Winchester, Virginia that is part of Frederick County School District. It serves 500 students in 6^{th} – 12^{th} grades currently and it will host the proposed DSCA lab school. The students and teachers from the partner districts including Clarke County, Fauquier County, Page County, Shenandoah County, Warren County, Winchester City and Mountain Vista Governor's School, along with students from the Dowell J. Howard Center in Frederick County, will have an opportunity to also take college credits offered virtually and in-person through the regional higher education partners including GMU and LRCC. Additionally, teachers will have the opportunity as well to take part in professional learning opportunities from GMU and LRCC to enhance their own pedagogical practices to learn about integrating DSCA into their teaching.

George Mason University will serve as the fiscal agent for the project and will hire the DSCA lab school staff. All additional partner school districts have authorized an initial commitment and provided letters of support. Upon approval of this application, a member from each of the partnering districts will be nominated by the respective Superintendents to be on the DSCA Lab School Governing Board. The Principal at Dowell J Howard Center in Frederick County, Mr. Ben Thomson has already agreed to host the lab school and has been working with PI Seshaiyer at GMU and leadership at Frederick County under Superintendent Dr. George Hummer and Co-PI Crawford to set up the Lab School.

GMU College of Science will serve as the coordinating higher education member and will work closely with Frederick County Public Schools and LRCC leadership. The DSCA Lab school effort will be coordinated by Dr. Seshaiyer as the lead PI from GMU and Dr. Crawford as Co-PI from Frederick County public schools working with the following leaders and members from their respective leadership teams:

- Dr. George Hummer, Superintendent, Frederick County Public Schools
- Dr. Johanna Weiss, Vice President of Academic and Student Affairs, LRCC
- Dr. Fernando R Miralles, Dean, GMU College of Science
- Dr. Cody Edwards, Exec Dir, GMU Smithsonian Mason Conservation Center (SMSC)

The efforts will be coordinated with all the Superintendents and members of their respective leadership from the six partnering school districts including

- Mr. Rick Catlett, Superintendent, Clarke County
- Dr. Major Warner, Fauquier County
- Dr. Melody Sheppard, Superintendent, Shenandoah County
- Dr. Antonia M. Fox, Superintendent, Page County
- Dr. Chris Ballenger, Superintendent, Warren County
- Dr. Jason Van Heukelum, Winchester Public Schools
- Dr. Kelly A Huff, Regional Director, Mountain Vista Governor's School.

All applicants must provide current, signed letters of support from all partner local school divisions and institutions of higher education. Local school division letters of support should include signatures from at least the current School Board Chair and Superintendent, and should reference specifics of any financial commitment by the School Board on behalf of the Lab School.

All signed letters from the Superintendent offices of each partnering school district, the regional director of Mountain Vista Governor's School, the executive leader from GMU College of Science, the executive director of the GMU Smithsonian Mason School of Conservation, the Director of Student Leadership and Success from GMU College of Engineering and Computing and the Vice President of Academic and Student Affairs at Laurel Ridge Community College, are included.

Additionally, letters from the Dr. Sharon Johnson, CEO of Shenandoah Valley Workforce Development Board, Inc., Dr. Girum Urgessa, Director of Student Leadership and Success, GMU College of Engineering and Computing and Dr. Yolanda Shields, Governor appointee to the Workforce Development Board for the Commonwealth is included.

Contact Information

Name of Individual/Organization Submitting Application:	**George Mason University**
Name of Contact Person for Application:	Dr. Fernando R. Miralles-Wilhelm
Title/Affiliation with Individual/Organization Submitting Application:	Dean, College of Science

Office Telephone:	**703-993-3622**	Mobile Telephone: **N/A**	
Fax Number:	**N/A**	E-mail Address: **fmiralle@gmu.edu**	

Prior Experience

1. Has the applicant had any prior experience operating a college partnership laboratory school or similar school?
   Check one of the following: Yes ☒ No ☐

2. If the response to the question above is "yes," describe any prior experience with establishing and operating college partnership laboratory schools and/or similar schools. Provide information such as the name of the school, the state where it is located, years of operation, and contact information for the school. If the school is no longer operating, provide the reason(s) for closure:

   Dr. Seshaiyer from GMU has held leadership positions at GMU including the Director of the Center for Outreach in Mathematics Professional Learning and Educational Technologies (COMPLETE), a VDOE Center for Excellence established in 2010 and also the Director of the STEM Accelerator, a Center of Excellence in the College of Science at GMU (2013 - 2021) as well as the Associate Dean for Academic Affairs (2017 - 2021). He has also served as a Program Director at the National Science Foundation (2015 – 2017).

   During this time, he was also the College of Science lead and liaison for the Governor's School @ Innovation Park (GS@IP) which is a partial-day Academic Year Governor's School program with a focus on STEM disciplines. GS@IP serves the school divisions of Manassas City, Manassas Park City, and Prince William County and is housed on George Mason University Prince William Campus. Students attend science, mathematics, engineering, research, and computer science classes at GS@IP in the mornings then return to their base high schools in the afternoons to take courses in social studies, language arts, and electives as well as to participate in extracurricular activities. GS@IP has been in operation since 2010 and serves 166 gifted and talented students from 15 high schools in the three participating school divisions. Most classes are dual enrollment options through George Mason University. GS@IP classes meet Monday through Friday from 7:30-11:15 a.m. GS@IP has eight full-time faculty members, a counselor, a Director, and an Administrative Bookkeeper.

Dr. Crawford served on the original Advisory Board to create the Mountain Vista Governor's School which still operates and is part of the Shenandoah Valley Regional CS Partnership. Mountain Vista Governor's School (MVGS) is an academic year Governor's school for Math, Science, and Technology serving the following school districts including Clarke County, Culpeper County, Fauquier County, Frederick County, Rappahannock County, Warren County and Winchester City. The mission of MVGS is *to engage students in a technology-enhanced program, exploring connections within an integrated curriculum of advanced mathematics, science, and the humanities through collaborative research. MVGS challenges students to grow as critical thinkers, leaders, and innovators to maximize their future roles in a constantly changing global society*.

3. Describe the relevant experience of the applicant or members of the college partnership laboratory governing board:

- **Governor's School @ Innovation Park**
    - The purpose of GS@IP is to educate students in the STEM fields and prepare them to contribute to the global community of the 21st century. The instructional design of the program integrated strands in biology, chemistry, and physics with mathematics, with concepts of engineering and technology, and with laboratory research. Learning experiences focused on real-world research with mentorship opportunities in business, industry, government, and university settings. Dr. Seshaiyer has worked over the last decade very closely with the current and the former directors of the GS@IP school, highly qualified faculty and dedicated students from three school divisions united in a regional school housed in a university setting at GMU. He was also a part of the Superintendent's Committee from the three divisions, the Executive Committee consisting of the Deputy Superintendents and Principals and the School board committee working with other leadership from Mason's Provost and Admissions office.
- **VDOE ACSE Grant (2019 - Present)**
    - Shenandoah Valley Rural Regional College Partnership Laboratory School will be a data-focused lab school with an emphasis on advancing Data Science, Computing and Applications (DSCA) through innovative research and education. The proposed lab school will help build on successful best practices these regional partners have already established through two Advancing Computer Science Education grants led by Co-PIs Dr. Padmanabhan Seshaiyer from George Mason University (GMU) and Dr. Deborah Crawford from Frederick County Public Schools (FCPS) and funded by the Virginia Department of Education (VDOE) that helped to enhance a regional partnership to create Shenandoah Valley Computer Science Regional Partnership which has impacted about 400 teachers and over 700 students in four years. As a part of this program, they also helped to develop a micro-pilot lab school component within this project where over 30 high school students over two years had the opportunity to engage in capstone projects, earning college credits, in the areas of Data Science, Computing and Applications. These students have already had the experience of working with faculty mentors from GMU and all across the Commonwealth to work and apply DSCA skills to solve real-world problems.

- **Statewide and Federal Experience**
    - Dr. Seshaiyer has served as a Program Director at the US National Science Foundation and his funding portfolio included Computational Mathematics, Computational Data Science Programs, Workforce Development Programs and STEM Research and Innovation Programs. Dr. Seshaiyer is the only Higher Education in the state to be appointed by the Governor to two different boards including the VA STEM Advisory Board reporting to the Secretary of Education, Aimee Guidera and the VA Workforce Development Board reporting to the Secretary of Labor, Bryan Slater. PI Seshaiyer has been in communication with both secretaries who see this as a potential opportunity to serve hundreds of students and teachers from rural and rural fringe school districts and also to upskill and reskill the teacher workforce in state-of-the-art fields including DSCA.
- **Dowell J Howard Center** in the Frederick County Public School system serves as a specialized educational facility offering a variety of programs and services to meet the diverse needs of students in the Frederick County area by committing to a non-traditional process for earning various credentials that can include a high school diploma. This center is where the proposed Shenandoah Valley Rural Lab School will be hosted physically.

4. The Applicant agrees the completed Lab School Application was reviewed by Applicant's representative legal counsel and provides assurances that the proposed Lab School School's curriculum, programs and any related Lab School administration meet all federal and state statutory compliance requirements and the Applicant's obligations created therein.

The completed Lab School application was reviewed by the Office of Sponsored Programs at GMU that checks for compliance and assurances.

Contact Information – Institution of Higher Education Partner

Name of Contact Person for Application:	**Dr. Padmanabhan Seshaiyer**		
Title/Affiliation with the Institution of Higher Education:	**Professor and Director**		
Office Telephone:	**703-993-9787**	Cell Telephone:	**806-239-8738**
Fax Number:	**N/A**	E-mail Address:	**pseshaiy@gmu.edu**

Part B: Description of Proposed Laboratory School

The application narrative must contain all of the elements in § 22.1-349.5 of the *Code of Virginia*.

I. ELEMENT 1 – Executive Summary

1. Describe briefly, in no more than 500 words, the focus, goals and objectives of the proposed college partnership laboratory school. Highlight the innovations this school plans to bring to its educational vision for students and how this lab school adds value to the experience on behalf of K12 students and staff, university students and staff, and the greater community. This description will be used in public releases of information to interested parties, such as: the media, the State Board of Education, parents or guardians, school systems, and in various documents produced by the Governor's Office. It must be concise and relate directly to the mission of the school.

The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data Science, Computing and Applications is a collaborative project between led by George Mason University and Frederick County Public Schools in partnship with six partnering rural and rural-fringe school districts in the Shenandoah Valley including Clarke County, Fauquier County, Page County, Shenandoah County, Warren County, Winchester Public Schools, Governor's School at Mountain Vista and Laurel Ridge Community College. This data-focused lab school has an emphasis on advancing Data Science, Computing and Applications across the Shenandoah Valley and the Commonwealth for students and teachers through innovative research, education and community engagement. The lab school will be hosted physically at the Dowell J. Howard Center in Frederick County Public Schools and will serve students each year as a full lab school. Lab school students and partner division faculty will have an opportunity to also take dual enrollment coursework and professional learning opportunities through the regional higher education partners including GMU Smithsonian Conservation Center and Laurel Ridge Community College. The proposed lab school will serve 50 students from grade 10, 50 students from grade 11 and 50 students from grade 12 selected who will have the opportunity to engage in DSCA through five common experiences including:

A. **Interdisciplinary Coursework Experience**: Students will be exposed to data-focused coursework from various aspects of STEM that applies to the real-world workplaces;
B. **Research and Creative Experience**: Students will work on specific, student-led research projects, where he/she works closely with the faculty across the commonwealth and other researchers helping them earn college credit through George Mason University;
C. **Design-thinking and Entrepreneurship Experience**: Students will learn to solve problems using a human-centered approach to problem solving and, in this process, learn to build viable business models;
D. **Work-based Learning Experience**: Students will be mentored by Big Data business and industry partners through a choice of work-based experiences and;
E. **Global and Multicultural Experience:** Data collaborations around global challenges where every student will interact with students from developing countries.

All students will also have the opportunity to earn directed online data analytics-focused certifications through companies such as Google and Amazon. Each year the students will take four core courses and a research innovations lab course in each grade 11th and 12th through a full-day program along with English, Social Studies and an elective. The proposed planning grant will help us to align the courses, certifications and credits between the three partners in the lab school. Proposed ideas to align and organize will include the Students in the lab school will also have the opportunity to earn an Associate's Degree from Laurel Ridge Community College, College credit from George Mason University, and Industry Certifications from partnering organizations. The proposed Lab School will offer a comprehensive high school curriculum while focusing on broad content areas in Data Science, Computing and Application (DSCA) content.

2. Sustainability Plan Overview

For College Partnership Laboratory Schools, sustainability requires constant refocusing and reinforcing of school models by engaging not just staff and students, but also community partners and other stakeholders, in both the "why" and "what" of the school. Describe your plan for initiating the school community and stakeholders to help you develop practices and next steps that will reinforce the proposed college partnership laboratory school model. Include the following factors in your response:

- What resources (e.g., financial, political capital, staff talents and interests) will support the proposed college partnership laboratory school model?
- What regular check-in structures are in place to ensure continued efficacy of the proposed college partnership school/programs?
- What community and/or non-profit partnerships will be developed?
- What public sector leaders and private corporations are interested in the proposed college partnership school's work?
- Who is the coalition/advisory group of supporters who will champion the school externally?
- What other financial resources will support the proposed college partnership laboratory school model?

Initiating the school community and stakeholders to develop practices and reinforce the proposed college partnership laboratory school model involves a comprehensive approach that fosters engagement, collaboration, and shared ownership. To sustain the proposed college partnership laboratory school model, various resources will be essential that includes financial resources, political capital and staff talent and interests.

- **Financial Resources**: Dr. Seshaiyer was a former Program Director at the National Science Foundation and has won over $18 Million in grant funding from a variety of agencies and foundations in the last two decades including the NSF, NIH, VDoE, NASA as well as foundation funding including Battelle Education, Whitaker Foundation, Simons Foundation and more. We plan to bring our experience from these to try to secure grants to sustain and support the proposed lab school starting in year 2. Some of the specific funding we plan to pursue will include:
    - **NASA** is committed to engaging, inspiring, and attracting future generations of explorers and building a diverse future STEM workforce through a broad set of programs, projects, internship opportunities, activities, and products that connect students and teachers to NASA's mission, work, and people. As a Minority Serving Institution, GMU has been informed about several upcoming opportunities to apply for NASA Minority University Research and Education Project (MUREP) Institutional Research Opportunity (MIRO) to promote STEM literacy to perform NASA-related research and education. During years 2-5, we will actively submit grant proposals to support activities of the proposed lab school as a part of the 2023 NASA Strategic Plan Objective 4.3 which is to "*Build the Next Generation of Explorers, establishes the agency priority on the importance of engaging students to become the diverse STEM workforce of the future.*"
    - The **National Science Foundation** is committed to expanding the opportunities in STEM to people of all racial, ethnic, geographic and socioeconomic backgrounds, sexual orientations, gender identities and to persons with disabilities. NSF is committed to building a diverse and capable workforce that is vital to maintaining the nation's standard of excellence in STEM. In the report titled "*The Missing Millions: Democratizing Computation and Data to Bridge Digital Divides and Increase Access to Science for Underrepresented Communities*" released by the NSF in 2021, substantial barriers to access to limited infrastructure and opportunities in rural communities were identified. It was also noted that faster progress in improving K-12 student performance in STEM will require mechanisms to bring the best research-based STEM pedagogy and practices to the classroom in every school in the country. During years 2-5, we hope to apply to the following NSF opportunities:
        - **NSF- Innovative Technology Experiences for Students and Teachers (ITEST)** Resource Center is expected to conduct outreach efforts to broaden participation. Specifically, GMU will apply for a ITEST Resource Center that will facilitate increased participation in STEM workforce development through expansion of ITEST to underrepresented geographic regions, community types such as rural and rural-fringe Shenandoah Valley: https://www.nsf.gov/pubs/2022/nsf22585/nsf22585.htm
        - **NSF - Robert Noyce Teacher Scholarship Program**: This aligns well with the proposed lab school efforts of serving as a hub for continuous teacher professional development in Data Science and Computing. This call invites innovative proposals that address the critical need for recruiting, preparing, and retaining highly effective elementary and secondary mathematics and science teachers and teacher leaders who persist as classroom teachers in high-need Local Education Agencies (LEA), (a.k.a. high-need school district and one of the eligibility criteria for applying to

this funding is under the **Rural** School Program under 20 U.S.C. 7351(b)). To achieve this goal, Noyce supports talented science, technology, engineering, and mathematics (STEM) undergraduate majors and professionals to become effective K-12 STEM teachers. It also supports experienced, exemplary K-12 STEM teachers to become teacher leaders who continue as classroom teachers in high-need school districts: https://www.nsf.gov/pubs/2023/nsf23586/nsf23586.htm

- **NSF – DRK-12: Discovery Research K-12 –** The goal of this program is to catalyze research and development that enhances all preK-12 teachers' and students' opportunities to engage in high-quality learning experiences related to the sciences, technology, engineering, and mathematics (STEM). Some of the focal areas of interest relevant to our proposed lab school are: Research and development activities to advance innovative approaches to support and sustain high-quality STEM teaching in ***rural preK-grade 12 schools***. Research and development that seeks to identify barriers rural students face in accessing high-quality STEM education, and development of innovative approaches to improving the participation and advancement of rural preK-grade 12 students in STEM studies.: https://www.nsf.gov/pubs/2023/nsf23596/nsf23596.htm

- The president's budget codifies a proposal for a **Rural Partnership Program** (RPP) with a $5 billion FY2022 request, with outlays over five years, placing the RPP within the Rural Development division of the U.S. Department of Agriculture (USDA-RD). Envisioned to "help rural regions, build on their unique assets and realize their vision for inclusive community and economic development," the RPP seeks to match the diversity of rural places across the U.S. and invest in local leaders, organizations, and strategies, giving communities a fighting chance to build resilience and prosperity on their own terms. As the proposed lab school evolves, we hope to actively pursue opportunities under this program.
- The **CHIPS and Science Act** (H.R. 4346) bill authorizes NSF to a) Support PreK–12 informal STEM opportunities, such as awards for "research on effective approaches to engaging students in PreK–12, including students from groups historically underrepresented in STEM and **rural** students" with a focus on "innovative before-school, after-school, out-of-school, and summer activities that are designed to encourage interest, engagement, and skills development in STEM." b) Increase efforts to advance **rural** STEM education including funds to support engaging rural educators, conducting research on effective STEM teaching in rural settings, leveraging community assets to support in-place learning in rural areas, and to support online STEM education for rural communities. The topics identified for the lab school will be aligned to the priority areas identified by the CHIPS and Science Act. We will be actively pursuing any related solicitations and funding opportunities that will come out of this new Act related to rural districts building on our strengths on Data and Computing.
- **VDOE Advancing Computer Science Education grants:** Superintendents Regions around the state of Virginia participated in a grant program to create professional learning opportunities for teachers to create effective lesson plans

for integrating computer science into the core curriculum. PI Seshaiyer and Co-PI Crawford have received this award four years in a row from VDOE that has helped to serve the Shenandoah Valley and impact over 400 teachers and over 700 students already. We hope to apply in the next cycle of these grants when the VDOE decides to announce it again.

The Shenandoah Valley Computer Science Regional Partnership that Drs. Seshaiyer and Crawford led, won two separate 2023 "Programs That Work" awards, one in the "Teacher" Category and the other in the "Student" Category for being exemplar programs in the state and for having successfully integrated components from distance learning STEM projects created during the pandemic to enrich ongoing courses and programs; and for having successfully engaged students from underserved groups in STEM courses, activities, and authentic research. The VMSC is an organization that supports efforts by school systems, teachers, parents, students, the Commonwealth of Virginia and other interested parties to achieve and sustain excellence in STEM education for Virginia's K-12 and higher education students. The VMSC has a board of 30 members representing corporate, educational, governmental, non-profit and scientific institutions in the Commonwealth. Collaboration with other organizations provides strong links for addressing ongoing mathematics and science educational concerns. The VMSC "Programs That Work" award recognizes exemplary STEM programs for which there is evidence of a positive impact on student or teacher learning.

- **Political Capital**:
  - **Congressional Earmarks**: Each year Congressional offices open up a round of earmarks (known as Community Projects in the House and Congressionally-Directed Spending in the Senate). In FY22, a proposal submitted by Dr. Seshaiyer from GMU titled Project ACCESS: **A**ddressing **C**ommunity needs through innovations in **C**omputing **E**ducation for **S**tudent **S**uccess, was selected by Senator Kaine to the Appropriations Committee for funding. While the proposal received good reviews and cleared the first step, the proposal was not included in the funding bills that were under consideration at that time. The request was to create a new postsecondary ecosystem called Project ACCESS that will create academic, research, curricular and outreach programs that will provide students with an opportunity to experience mentored research with creative experience on solving real-world community challenges in Virginia. Students who go through this program will engage in design and systems thinking and learn how to solve challenges using a user-centered approach so they can become better collaborators, communicators, critical thinkers and creative problem solvers. This year, Dr. Seshaiyer, as a part of his membership to the Governor's STEM Advisory board applied with a team from the board for FY23 Congressional earmarks to create STEM Hubs all across the state. The team was just recently informed that our congressionally directed funding request for $1 Million to start the VA STEM Ecosystem was passed with the most recent appropriations packages. By showing strong results in the first years of the lab school, we hope to continue to apply to such congressional earmarks to sustain funding for the Shenandoah Valley.
  - **Governor's Executive Order (EO) on AI**: Governor Glenn Youngkin today issued Executive Order 30 on Artificial Intelligence (AI), which implements AI

Education Guidelines for the classroom and AI Policy and Information Technology Standards that safeguard the state's databases while simultaneously protecting the individual data of all Virginians. The Governor's Executive Order combines strong protections for Virginia residents and businesses while recognizing opportunities presented by AI innovation. As one of the first states in the country to issue AI standards, Virginia is leading the way on AI guidelines and pilots. The Education Guidelines in this EO will establish guiding principles for the use of AI at all education levels to ensure that our students will be prepared for the jobs of tomorrow without sacrificing any current learning opportunities. The proposed lab school includes coursework for students to earn workforce electives and capstone experiences in Data and Computing in the age of AI. A team from SCHEV and the Secretary of Education Guidera's Office, is working on new initiatives aligned to the Governor's initiative and has already been in discussion with PI Seshaiyer on collaborating on integration of AI into the proposed curriculum framework. This can include potential funding for activities that we will apply to.

- **Virginia Career Works** mission is to advance economic stability and growth by preparing and connecting people who want to work with employers who need to hire through its training providers and network of professional partners. Virginia Career Works is Virginia's vital link between meaningful employment and growing businesses, changing lives; and advancing economic prosperity. In 2023, they ran a grants competition for several areas including Youth Outreach and Marketing Grant, Transportation to Learn Grant, Technical Skills Training Grant, Soft Skills Training Grant, and Supplemental Workforce Development Training Opportunity Grant. PI Seshaiyer is the only higher education board member on the Workforce Development Board that reports to the Secretary of Labor Bryan Slater who is extremely interested in initiatives that includes apprenticeships, digital badging and certifications such as those proposed in the lab school. We hope to apply for future opportunities in this space of grants from the Government. We also will work with
- **Go Virginia Funding**: The Growth & Opportunity (GO) Virginia is a bipartisan, business-led economic development initiative that is changing the way Virginia's diverse regions collaborate on economic and workforce development activities. GO Virginia supports programs to create more high-paying jobs through incentivized collaboration between business, education, and government to diversify and strengthen the economy in every region of the Commonwealth. The proposal lab school efforts will include writing proposals to the GO Virginia Board who are responsible for awarding allotted funds to relevant projects and overseeing Regional Councils, who submit project ideas to the Board for approval.
- **G3 Program**: Get a Skill. Get a Job. Get Ahead – G3 tuition assistance is for students living in Virginia who qualify for state financial aid with a household income that's less than $100,000. G3 is available for select programs in five of Virginia's most in-demand industries, including Early Childhood Education, Healthcare, **Information Technology**, Public Safety and Skilled Trades (construction and manufacturing). As the primary workforce training provider for the Commonwealth of Virginia, all 23 of Virginia's Community Colleges proudly offer G3 tuition assistance to its students. We will work closely with LRCC to assist the DSCA lab school students who wish to take advantage of the G3 opportunity as they continue to pursue a college pathway.

- **Staff Talents and Interests**:
  - **Digital Badging and Micro-Credentials**: In the age of rapid technological advancement and evolving skill requirements, digital badges and micro credentials provide a flexible, accessible, and effective way for individuals to enhance their capabilities in data science, computing for teachers, leadership, and many other fields. One of the novel innovations in our proposed lab school will be the development of digital badges and Micro-Credentials in data science, computing for teachers, and leadership that will be developed in conjunction with GMU and LRCC. These badges and Micro-Credentials will offer flexibility in learning for students, teachers, staff and leadership to acquire specific skills without committing to long-term, traditional educational programs. They also will serve as tangible evidence of skills and knowledge acquired. Also, the targeted approach can be more efficient and cost-effective. Most importantly these can be accessible, customizable and stackable.

Both Dr. Seshaiyer and Dr. Crawford have experience working with Virginia ASCD, an affiliate of the Association for Supervision and Curriculum Development (ASCD) to develop Micro-Credentials for various community engagement aspects of the high school data science curriculum. As the lab school evolves one of the goals will be to create a curated set of Open Educational Resources (OER) for school teachers that can provide valuable resources to enhance teaching practices and support professional development across the commonwealth and beyond. The lab school will help to create high-quality instructional materials and OER that can adapt content to meet diverse learning needs, and allow teachers to enhance their teaching practices to better support student learning and engagement. This material will be curated as digital badges and Micro-Credentials through GMU and LRCC and the lab school can become a hub to offer value-added services, such as premium support, professional development, certification programs, licensing and partnerships, consulting and training services, personalized coaching, or access to exclusive resources in Data Science and Computing, to individuals or institutions seeking to earn digital badges or Micro-Credentials.

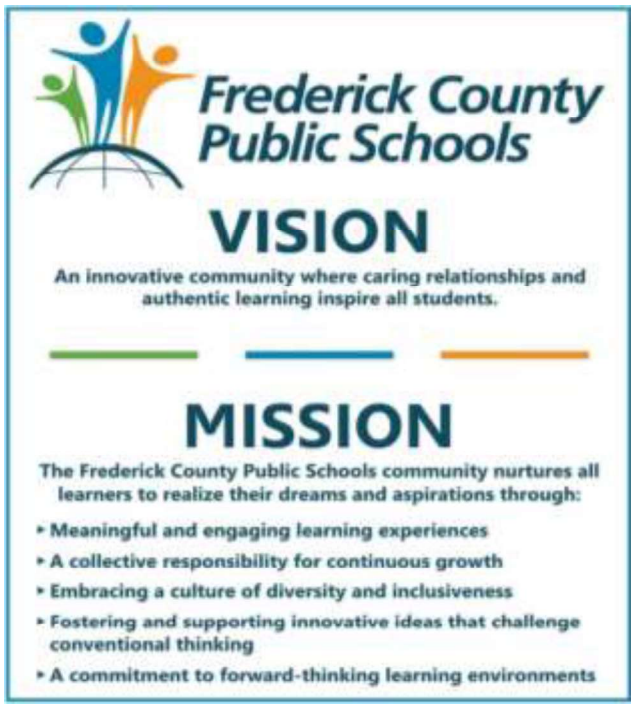
- **Working with Local Businesses**: Frederick County Public Schools and the DSCA Laboratory Schools will collaborate to reach out to the Winchester Economic Development Council and local businesses to set up apprenticeships and a job pipeline for students with credentials and experience earned in the lab school. As graduates are hired, the DSCA lab school plans to build partnerships with hiring businesses to contribute or reimburse the cost of the credentials earned by their hires. We will also work with the Virginia Career Works Shenandoah Valley region to collaborate on paid apprenticeship opportunities for the high school students from the lab school (**See letter from Sharon Johnson, Chief Executive Officer, SVWDB**)

II. ELEMENT 2 – Mission and Vision

The International Association of Lab Schools ("IALS") is a membership organization whose goal is to continually enhance the key principles of lab schools including (1) teacher preparation programs, (2) research, (3) curriculum development, (4) innovation, and (5) professional growth. State the mission and vision of the proposed college partnership laboratory school addressing these five key principles. The following components must be addressed:

1. A description of the college partnership laboratory school's mission and vision.

The DSCA Laboratory School as a school within Frederick County Public Schools exposes and seeks to enact the Frederick County Public Schools Mission and Vision from our division strategic plan: Inspire 2025: A Promise for Progress.



The Frederick County Public Schools Mission and Vision aligns well with the Mission of George Mason University which is innovative and entrepreneurial in spirit and utilizes its multi-campus organization and location near our nation's capital to attract outstanding faculty, staff, and students. Through this College partnership lab school, George Mason will:

- ***Educate*** the new generation of leaders for the 21st century—men and women capable of shaping a global community with vision, justice, and clarity.
- ***Encourage*** freedom of thought, speech, and inquiry in a tolerant, respectful academic setting that values diversity.
- ***Provide*** opportunities for innovative and interdisciplinary courses of study that enable students to exercise analytical and imaginative thinking and make well-founded ethical decisions.
- ***Nurture*** and support a highly qualified and entrepreneurial faculty that is excellent at teaching, active in pure and applied research, capable of providing a broad range of

intellectual and cultural insights, and is responsive to the needs of students and their communities.

- ***Maintain*** an international reputation for superior education and public service that affirms its role as the intellectual and cultural nexus among the Commonwealth, the nation, and the world.

2. An overview of how the college partnership laboratory school will comply with the following:

    - College Partnership Laboratory Schools, § 22.1-349.3 of the *Code of Virginia.*
    - *Standards of Quality* (SOQ), § 22.1-253.13:1 through § 22.1-253.13:8.
    - Virginia *Regulations Establishing Standards for Accrediting Public Schools in Virginia* (SOA), 8VAC20-131-390 through 400; 8VAC20-131-420 through 430.

Throughout the planning process, the planning team has engaged K-12 and Higher Education experts to ensure alignment with legislation concerning college partnership laboratory schools, standards of quality, and accreditation regulations. This collaboration has informed the proposed governance structure, academy program, assessment program, and monitoring and evaluation plan. Further details within each relevant section elucidate how the school intends to adhere to these statutes and regulations.

3. A description of any specific area of academic concentration.

The proposed College Partnership Laboratory School will provide an academic concentration in Data Science, Computing and Applications (DSCA). Students will engage in a variety of learning experiences, including project-based learning, inquiry-based learning, experiential learning, challenge-based learning, active learning that will also be supplemented by performance-based assessments, and hands-on learning opportunities. This direction will be informed by local and statewide initiatives for laboratory school collaborations including rural challenges in the Shenandoah Valley, teaching data and computing in the age of AI to align with Governor Youngkin's executive order EO-30. Students will have the chance to specialize in data science, computer science, information technology with an interdisciplinary STEM curriculum throughout their secondary education. The GMU Lab School will utilize expertise from the GMU College of Science, GMU College of Engineering and Computing as well as Laurel Ridge Community College STEM programs to support the laboratory school, offering content specialists to assist in developing curricular resources and field experiences in partnership with the Shenandoah Valley Schools.

4. The college partnership laboratory school's strategic academic goals and core philosophy in alignment with a performance-based assessment model.

The DSCA Laboratory School offers inquiry-based learning with project-based performance assessments along with competency-based assessments across Data Science, Computer Science I and II, Science (Environmental Science, Biology and/or Physics) aligned with the workforce data literacy and computing skill set.

Students will complete student-led research projects around data science and computing in COS 120 (10th Grade), COS 240 (11th Grade) and COS 400 (12th grade) using design thinking to address a problem of personal interest as in the Engineering Grand Challenges. Students will use design thinking, self-assessment, peer assessment and receive expert feedback from university mentors in the content area to reflect and revise their work in Data Science, CS and in Science with university professor instructors and mentors from GMU, the Smithsonian Mason School of Conservation (SMSC), Shenadoah University (SU) and Laurel Ridge Community College. Students will present their research in showcases, competitions, academic conferences and/or publications.

Learners will track their personalized growth and attainment of technical skills in the data cycle such as data acquisition and collection, data cleaning and processing, data visualization, data modeling and prediction, data analysis and communication for decision making along with data and use of computing tools in a dashboard using personalized software such as Quant Hub. A pre-assessment in Quant Hub assigns students to a personalized learning trajectory of modules with built in performance-based competency assessments. Students who choose to earn the Data Analytics Certificate will attain workforce certification based on the levels completed as evidenced by the performance-based certificate assessments.

The Data Hub will offer seminars, electives and training in data visualization and analysis software along with use in their Data Science courses. The following options will be uniquely available to DSCA Lab School students:

- **Online courses and tutorials** from platforms like Coursera, Udemy, and LinkedIn Learning offer courses specifically designed for beginners to advanced users in Tableau and Power BI. Students completing these courses will earn certificates of completion to demonstrate proficiency.
- **Certification Exams**: Students may elect to use Data Hub electives to earn professional certification exams for Tableau and Power BI. Certifications include "Tableau Desktop Specialist" or "Microsoft Certified: Power BI"and are used to validate skills and enhance students' workforce credentials.
- **The Data Science courses** will provide valuable hands-on experience and learning opportunities in tools: CODAP, Google Colab (Python), Tableau and Google Sheets.
- **Internships and Projects**: Participating in internships or working on real-world projects will involve students in using Tableau or Power BI to gain practical experience and showcase skills students have learned at the DSCA Lab School to potential employers or educational institutions.
- **Hackathons and Competitions**: Students will have opportunities to participate in data analytics competitions or hackathons to apply Data Science skills including use of tools such as Tableau or Power BI and others in solving real-world problems and potentially earn recognition or awards for their achievements. Example would include the Future Cities Competition, Frederick and JMU Regional Science and Engineering Fairs and Kaggle competitions.

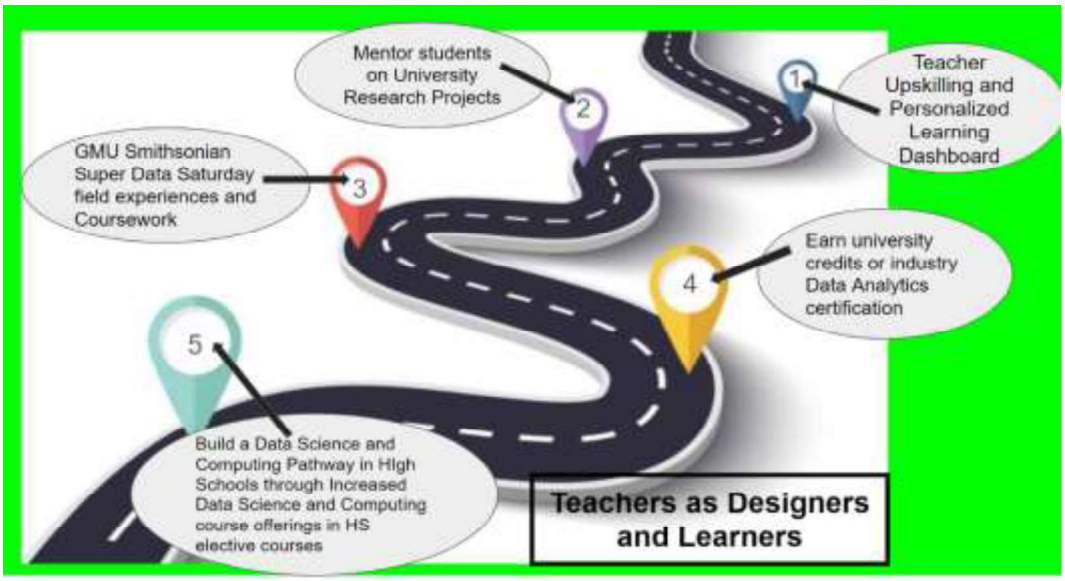
In all of these ways, DSCA Lab School learners will showcase proficiency through projects, certifications, and practical experience to demonstrate their growing expertise in Data Science and Computing.

5. Identify and describe in detail the college partnership laboratory school's targeted student population with the understanding that the college partnership laboratory school is open to any student of the Commonwealth

The DSCA Laboratory School is open to any student in the Commonwealth. Our anticipated target population includes 10-12 grade students from the Frederick/ Shenandoah region, including partner school divisions. Additionally, 10th-12th graders from the partnering divisions in the Shenandoah Valley Rural Regional Partnership will be participating in a career class at Laurel Ridge, GMU COS 120 research class, GMU COS 400 Capstone Experience Class, as well as opportunities at the Smithsonian-Mason School of Conservation

6. The innovative nature of the academic program or operational aspects that can model future best practices for other schools within the Commonwealth. For the purposes of this question consider innovation as the application of a promising or well-theorized educational principle that the university is poised to support within the academic environment of this school.

Teachers as Designers and Learners



The DSCA Laboratory School seeks to serve as a go-to Data Science and Computing Hub for teacher professional learning across the Commonwealth. Teachers within the lab school and from partnering divisions may participate in the following options: Quant Hub, In STEP (NC State), or similar dashboard for personalized learning to upskill data science and computing skills based on a preassessment, attendance at the research courses with their students, connecting with university experts in their fields through student research projects and business and industry partners, Google Data Analytics certificate support, classroom visits, monthly cohort support groups and lesson study around topics of interest.

Data Science teachers across the Commonwealth will benefit from the following facilitated by the DCCA Lab School team: Annual Data Science Teacher Institute, Data Science Summit with Business & Industry, Higher Education and High School panel representations to identify the emerging workforce skills to plan student pathway pipelines, Data Walks, an observation protocol, a DS Cohort led by and for supporting new DS teachers and lesson resources published on the GoOpenVA site under the DSCA Hub. The following roadmap shows Teachers as Designers and Learners within the DSCA Lab School environment.

III. ELEMENT 3 – Educational Program and Statutory Assessments

State the goals and objectives to be achieved by the college partnership laboratory school, which must meet or exceed Virginia Board of Education's Standards of Learning. Give thorough explanations and answer all sections completely.

1. A description of the college partnership laboratory school's academic program, educational theory, foundation of the model and proposed innovative offerings and how it is aligned with state standards.

The DSCA Laboratory School will focus on delivering a high quality high school program of studies to students. All courses will be in alignment with the studies prescribed Virginia Board of Education College Partnership Laboratory School Application Page 21, Virginia's Standards of Learning (SOL) and graduation requirements. The DSCA program will be learner-centered, typically inquiry and project-based using design thinking and the data cycle iterative processes. Two electives per year will offer student choice in goal setting and selection of workforce credentials, certificates and university mentored research projects and apprenticeships as part of career and personalized learning. The program and Data Hub space will model the collaborative work teams in the digital industry spaces. Classroom learning experiences will be designed based on research-based approaches to how educators deliver instruction featuring flexible grouping, hands-on learning, student reflection and use of feedback and student choice in how they access content and where possible how to demonstrate learning with projects and applications.

2. An overview of the curriculum design, courses of study, teaching approach, teaching methods, and a description of the learning environment to be used at the college partnership laboratory school. Include research-based instructional strategies and/or educational theories to ensure that student engagement and achievement are occurring that align with the school's mission. This section should embed these components (curriculum design, course of study, teaching approach and methods, learning environment) into a clear description of the student experience, or "day in the life" of a student enrolled in the laboratory school.

Creating an innovative College partnership laboratory school model requires a comprehensive approach to curriculum design, teaching methods, and learning environments. The proposed DSCA Lab School will include innovations around:

A. Curriculum Design: The curriculum will be designed to be interdisciplinary, data-driven, integrating subjects whenever possible to create connections between different fields of study. Project-based learning will be a central component, allowing students to engage deeply with topics and develop critical thinking, problem-solving, and collaboration skills. The curriculum will include both traditional academic subjects and practical, real-world skills such as digital literacy, communication, and creativity. Flexible pathways will be offered to accommodate diverse student interests and learning styles, including opportunities for internships, apprenticeships, and independent study projects.

B. **Courses of Study**: Core academic subjects such as English, mathematics, science, and social studies will be complemented by elective courses in areas such as data science,

technology, design thinking, entrepreneurship, arts, and humanities. Advanced courses will be offered to challenge high-achieving students and prepare them for college-level work. Career and technical education (CTE) pathways and workforce electives will be available for students interested in pursuing careers in DSCA.

C. **Teaching Approach**: Teachers will act as facilitators and guides, fostering student inquiry and exploration rather than simply delivering content. Differentiated instruction will be employed to meet the needs of diverse learners, with opportunities for both whole-group and individualized instruction. Student-centered learning will be emphasized, with a focus on student voice and choice in their educational experiences.
D. **Teaching Methods**: Inquiry-based learning will be used to encourage curiosity, critical thinking, and problem-solving skills. Flipped classroom techniques may be utilized, with students engaging in independent study outside of class and using class time for active learning and collaboration. Data and Computing will be integrated throughout the curriculum to enhance learning experiences and provide access to resources and tools.
E. **Learning Environment**: This will be designed to be flexible and adaptable, with spaces for collaboration, independent study, and hands-on projects. Emphasis will be placed on creating a positive and inclusive school culture, where all students feel supported and valued. The physical environment will reflect the school's commitment to innovation, with modern facilities and resources to support 21st-century learning.
F. **Research-based instructional strategies and educational theories** that align with the school's mission may include: (i) **Constructivism**, which emphasizes active learning and the construction of knowledge through experience; (ii) **Social-emotional learning** (SEL) strategies to promote students' well-being and interpersonal skills; (iii) **Growth mindset theory** to foster resilience and a belief in the potential for growth and improvement; (iv) **Culturally responsive teaching** practices to ensure that instruction is relevant and meaningful for all students; and (v) **Collaborative learning** approaches to encourage teamwork and communication skills.

By incorporating these elements into the curriculum, teaching approach, teaching methods, and learning environment, the GMU DSCA college partnership laboratory school can ensure that student engagement and achievement are occurring in alignment with its mission of innovation and excellence in education. The specific Data Science, Computing and Applications Laboratory School Program of Study is presented in the table below.

	Grade 10	**Grade 11**	**Grade 12**
Data Science (Math)	Algebra II /Honors Base School	Data Science I	Data Science & AI Innovations II** (**DE or College Credit**)
Computer Science	AP Computer Science Principles, Programming I Base School	Computer Science I (Python) AP CS A (Java) (science or math credit)	Computer Science II*(**DE**) AP CS A (Java)* (science or math credit)
Data in Disciplines (Science)	Chemistry/Honors 03106 Biology / Honors Base School	Earth Science Data Analytics (NASA) Bioinformatics (Bio)** Physics I	Earth Science Data Analytics (NASA) Bioinformatics (Bio)** Physics I / II*

Data Hub Lab (1-2 periods) Work-Based Learning: Research Internships/ Industry Credential/Industry Apprenticeship***	**College of Science 120 ** Virtual DSCA Course**	-College of Science 240 ** Innovations in Data Science, Computing and Applications -Data Analytics Certificate Level I or II -Personalized Learning in Tableau, Microsoft Power BI and/or Quant Hub for Data Science	-College of Science 400** -Work-Based Learning: Data Science -Data Analytics Certificate Level II -Personalized Learning in Tableau, Microsoft Power BI and/or Quant Hub for Data Science
Social Studies	General or AP World History Base School	General or AP US History	General or AP Government
English	English 10 or Honors Base School	English 11 General or Honors	English 12 General or Honors
Elective	**Career Exploration (Laurel Ridge Community College)** **Virtual DSCE Course**	Data Hub Lab Electives World Language (Virtual VA)	Data Hub Lab Electives World Language (Virtual VA) Work-Based Learning Apprenticeship

*Dual-enrolled **GMU College credit ***140 hours = .5 credit; 280 hours = 1 credit

3. A description of plans for identifying, evaluating, and successfully serving students with disabilities, students who are English Language Learners, students who are academically behind, and gifted students including the planned processes for compliance with applicable laws and regulations.

The DSCA Laboratory School will adhere to state and federal laws and policy to ensure that students who may have disabilities, learning gaps, need gifted services, or are English Learners are identified. Once identified, or if already identified prior to attending the laboratory school, the DSCA Lab school plans to work closely with participating base schools to ensure alignment with the school division's policies, procedures, evaluation processes, and formatting for their individual education plans and personalized learning plans where appropriate.

Once students have been selected from the lottery, the lab school will contact all participating schools of students selected. IEP teams will convene to determine whether the laboratory school is the least restrictive environment for the student, and what, if any, supplementary aids and services may be required should the student attend.

Initially, the DSCA Lab School will fund periods from at least one educator with a special education endorsement and one with a Multilingual Learner/EL endorsement to serve the student population. Each participating school division will be responsible for supporting their registered students with IEP accommodations that go beyond what would be provided in a collaborative setting

Provide details related to curriculum design, courses of study, teaching approach, teaching methods, and a description of the learning environment to be used at the college partnership laboratory school for students with disabilities, students who are English Language Learners, students who are academically behind, and gifted students . Include research-based instructional strategies and/or educational theories to ensure disabled student engagement and achievement are occurring that align with the school's mission. Please note that instructional services provided to K12 students with disabilities is governed and guided by existing K12 services and cannot be replaced by university disability resources.

Designing a curriculum, courses of study, and a learning environment that cater to the diverse needs of students with disabilities, English Language Learners (ELLs), academically behind students, and gifted students in a college partnership laboratory school requires a comprehensive and inclusive approach. The DSCA Team has focused on the following research-based priorities:

A. Curriculum Design:

- **Differentiated Instruction**: The curriculum has been designed to accommodate various learning styles, abilities, and needs. Teachers will provide multiple entry points and pathways for students to access content, demonstrate understanding, and apply skills through use pf personalized learning tools, dashboards, data investigations, projects and tasks that differentiate by design.
- **Universal Design for Learning (UDL):** Utilize principles of UDL to create flexible learning environments and instructional materials that are accessible to all students. This includes providing multiple means of representation, expression, and engagement.

B. Courses of Study:

- **Individualized Education Plans (IEPs)**: For students with disabilities, develop IEPs that outline specific learning goals, accommodations, and support services tailored to their unique needs. The DSCA team will collaborate with special education professionals, parents, and students to ensure IEPs are effectively implemented.
- **English Language (EL) Program**: The EL teacher will provide targeted instruction in English language proficiency for EL students. The EL teacher will also support DSCA teachers to provide scaffolded support and language-rich activities to facilitate language acquisition and academic success.
- **Accelerated and Enrichment Programs**: The DSCA lab school provides accelerated and enrichment programs for all students, including gifted learners, to provide opportunities for advanced coursework, independent study, research projects, and mentorship opportunities with college faculty.

C. Teaching Approach:

- **Inclusive Education**: Our mission is a culture of inclusion where all students feel valued, respected, and supported in their learning. Promote collaboration, peer mentoring, and peer support networks to create a sense of belonging and community.

- **Strengths-Based Approach**: Recognize and build upon students' strengths, interests, and talents. Encourage self-advocacy, self-determination, and positive identity development for all students.

D. Teaching Methods:

- **Collaborative Learning**: Incorporate cooperative learning strategies that encourage collaboration, teamwork, and peer interaction. Teachers will design opportunities for students to work together on projects, problem-solving activities, and hands-on experiments.
- **Differentiated Instruction**: Tailor instruction to meet the diverse needs of students by varying content, process, and product. Use tiered assignments, flexible grouping, and choices in products used in assessments to accommodate different learning profiles.
- **Multimodal Instruction**: The Data Hub and tools will be used to present information using a variety of modalities (e.g., visual, auditory, kinesthetic) to accommodate diverse learning preferences and abilities. Use multimedia resources, manipulatives, and technology tools to enhance engagement and understanding.

E. Learning Environment:

- **Accessible Facilities and Resources**: All physical spaces, instructional materials, and technology tools are accessible to students with disabilities. Assistive technology, adaptive equipment, and modifications will be provided as needed to support full participation and access to learning.
- **Positive and Supportive Climate**: Relationships are a first priority. The DSCA team seeks to create a safe, welcoming, and supportive learning environment where students feel comfortable taking risks, asking questions, and expressing themselves. Learners will develop a growth mindset culture that promotes resilience, perseverance, and academic risk-taking.

In summary, to ensure disabled student engagement and achievement, schools may adopt research-based instructional strategies and educational theories. These include Universal Design for Learning (UDL), which emphasizes proactive instruction design catering to all learners, including those with disabilities, by offering multiple means of representation, action, and engagement. Differentiated Instruction tailors teaching to diverse student needs, varying content, process, and product, allowing educators to address individual learning profiles and foster meaningful learning experiences. Collaborative Learning encourages peer interaction, social engagement, and cooperative problem-solving, providing valuable peer support and shared learning experiences for students with disabilities. A Strengths-Based Approach focuses on students' strengths rather than deficits, enhancing self-confidence, motivation, and academic achievement, creating a positive learning environment for all. Individualized Education Plans (IEPs) outline personalized academic and functional goals, accommodations, and support services, ensuring students with disabilities receive necessary assistance to reach their academic potential through collaborative development and implementation.

4. Who will be developing/designing/creating educational content and guidelines for the college partnership laboratory school? Provide a background on their credentials and experience.

The design, development and creation of the educational content and guidelines for the College Partnership Lab school will be coordinated by a planning team that will include PI Seshaiyer and Co-PI Crawford working with Dr. Julie Myers (Frederick County Public Schools) and Dr. Ia Gomez (Laurel Ridge Community College). Additionally, the planning team will establish an academic advisory committee with more members from GMU, Laurel Ridge Community College and the partner school districts who will be tasked with offering insights into educational content, pedagogical approaches, and course selections. This committee will comprise representatives from K-12 and higher education institutions, alongside subject matter experts from local businesses and non-profit organizations. The expertise of members of the planning committee are as follows:

- **Dr. Padmanabhan Seshaiyer** is a Professor in Mathematical Sciences and is the Director of the Center for Mathematics Professional Learning and Educational Technology (COMPLETE), a joint center between the College of Science and the College of Education and Human Development. His primary research focuses on computational mathematics, mathematical modeling, computational thinking, data science, teacher professional development and STEM education. Seshaiyer has worked on initiatives aimed at enhancing mathematics education through innovative teaching methods, curriculum development, and the integration of data literacy and technology. His work involves applying mathematical modeling and data science education techniques to address challenges in education, particularly in preparing teachers to enhance their own pedagogical practices and to equip students with the skills and knowledge needed to thrive in a data-driven world. His work also includes empowering teachers with the latest scientific findings on the learning characteristics of underrepresented populations, awareness of cultural differences, understanding of students with multiple learning styles, and the use of equitable and non-biased assessments. He has served as the PI for four ACSE grants from VDOE. He was also the lead higher education task force member for the Virginia Department of Education (VDOE) High School Data Science Standards of Learning and curriculum.

- **Dr. Deb Crawford** is an accomplished educator with a strong background in mathematics education and educational leadership. She holds a Ph.D. in Mathematics Educational Leadership from George Mason University, along with an M.Ed. in Educational Leadership (Administration) from the same institution. Currently serving as the Supervisor of Mathematics & World Languages in Frederick County, Dr. Crawford also works as an Adjunct at the Math Center in George Mason University. She holds the position of VDOE K-12 Lead on the Data Science Team and serves as a Co-Principal Investigator for four ACSE grants from VDOE. Additionally, Dr. Crawford is an active member of the Virginia Math & Science Coalition Board. Her previous roles include serving as Past-President of VCMS, as well as fulfilling positions such as Math Department Chair, Math Teacher, and Math Coach in Fairfax County Public Schools.

- **Dr. Juliette Myers** holds a Ph.D. in Educational Leadership from Virginia Tech, earned in 2008, as well as an Ed.S. in Educational Leadership from the same institution in 1998. Dr. Myers also holds an M.A. in Secondary Mathematics from Hollins College, obtained in 1995, and a B.A. in Fine Arts with a focus on Mathematics from the University of North Carolina, completed in 1988. Currently serving as the Director of Middle and Secondary Instruction at FCPS since 2014, Dr. Myers has demonstrated her expertise and commitment to educational excellence. Prior to her current role, she served as the Director of Curriculum and Instruction at Chesterfield County Public Schools from 2012 to 2014 and as Principal of Robius Middle School, an Expedentiary Learning School, from 2011 to 2012. Her leadership experience also includes serving as Principal of Glenvar Middle School in Roanoke County Public Schools from 2005 to 2011 and as Assistant Principal at Cave Spring Middle School from 1999 to 2005. Dr. Myers began her career in education as a High School Math Teacher at Cave Spring High School, where she taught from 1991 to 1999. In addition to her administrative roles, Dr. Myers has been actively involved in professional organizations, currently serving as President of the Virginia ASCD since 2022.

- **Dr. Ia Gomez** serves as the Dean of STEM at Laurel Ridge Community College, overseeing the Office of Academic and Student Affairs. She earned her B.S. in Biochemistry and later completed her Ph.D. in Biochemistry and Molecular Biology, both from the University of Cordoba, Spain. Dr. Gomez's educational background equips her with a deep understanding of the STEM disciplines, enabling her to effectively lead initiatives within the college unit. As Dean, she is committed to enhancing the quality of STEM education, promoting research opportunities, and supporting student success. Dr. Gomez's leadership at Laurel Ridge Community College exemplifies her dedication to advancing STEM fields and empowering students to excel in their academic pursuits.

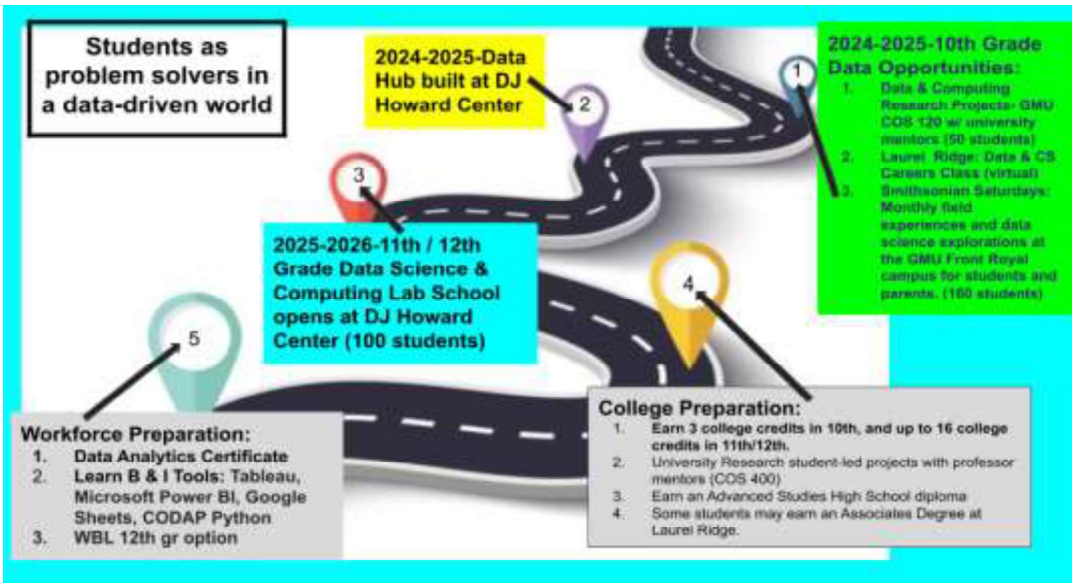
5. A description of how the curriculum and/or course of study will rely or build upon the local school division's sequence of study. Describe any prerequisite course work requirements as well as course requirements for graduation (if the college partnership laboratory school is to be high school).

All students will have the option to complete the state's requirements for either the standard diploma or advanced diploma. Some courses (e.g., World Language; Personal Finance) may use virtual or alternative delivery models, and some will be offered through interdisciplinary models (e.g., an integrated English 11 and US I as Humanities I). Coursework builds on the 9th and 10th grade programs at the base school. While Algebra II is preferred as a math prerequisite, students may take Algebra II at DSCA Lab School to increase access to all students. Prior experience in programming is preferred but not required.

6. A detailed description of the implementation process for the career exploration/pathways curriculum.

In the implementation process for the career exploration/pathways curriculum at the new DSCA lab school for, students are positioned as active producers and peer-reviewers, engaging deeply with content and each other. Through hands-on projects and real-world applications, they become adept problem solvers in a data-driven world, honing skills crucial for both apprenticeships and college preparation. The curriculum emphasizes workforce readiness alongside academic achievement, fostering a holistic approach to education that prepares students for success in their chosen paths beyond graduation. This is illustrated below.

Students as Producers and Peer-Reviewers



7. A detailed description of the process for documentation of the student's curriculum pathways throughout the lifecycle of the program.

The documentation process for students' curriculum pathways throughout the lifecycle of the program on data science, computing, and applications involves several key steps to ensure comprehensive tracking and assessment. Initially, students undergo an assessment to gauge their knowledge and interests in these fields. Based on this assessment, personalized curriculum pathways are developed, incorporating a mix of courses, projects, and experiential learning opportunities tailored to individual needs. Progress is regularly monitored through assignments, exams, projects, and performance evaluations. Additionally, students are encouraged to maintain portfolios showcasing their work and accomplishments. Apprenticeships, internships, research projects, and other experiential learning experiences complement academic learning. Continuous advising and support are provided to help students navigate challenges and make informed decisions. Formal assessments at key milestones measure learning outcomes and competency. Upon completion of the program, students graduate equipped with the skills and knowledge needed for careers in data science, computing, and related fields.

8. A description of planned procedures of how the college partnership laboratory school will provide assistance to students who are not performing at expected levels to ensure the continued progress of student growth. The applicant needs to define their "expected levels" of performance and delineate a plan for corrective actions in the event that pupil performance at the college partnership laboratory school falls below the standards outlined in the SOA. (*See* Part VIII of the SOA.)

The lab school plans to meet all required performance-based goals as required for core content areas under the Code of Virginia in alignment with the SOL. The school's emphasis on computer science, data science, and workplace readiness skills will also allow the school to meet additional goals and objectives set forth in the state legislature. While Economics and Personal Finance may be delivered in some alternative and virtual options, the state's objectives for that content and course will be thoroughly covered with students enrolled at the DSCA school. We will provide ongoing support and needed Tier 1 remediation in the following ways: the personalized learning dashboard allows self-paced completion of skills with mastery learning with a record of student growth over time, Data Hub support all day, small group and 1:1 with teachers in office hours. The lab school will define criteria for "expected levels" of performance, progress indicators and a comprehensive plan for corrective measures.

9. Information regarding the minimum and maximum enrollment per grade for the full term of the contract as well as class size and structure for each grade. (*See* § 22.1-253.13:2 of the *Code of Virginia*.)

Enrollment per Grade					
Grade Level	**2024-2025 Year 0**	**2025-2026 Year 1**	**2026-2027 Year 2**	**2027-2028 Year 3**	**2028-2030 Year 4 Year 5**
Grade 10 (Transition)	50	50	50	50	100
Grade 11 Full Lab School	0	50	50	50	100
Grade 12 Full Lab School	0	50	50	50	100

Students are served from across the Commonwealth based on a lottery system including Frederick high schools and programs, James Wood High School, Millbrook High School, Mountain Vista Governor's School, NREP, Sherando High School and all independent schools located in the Frederick County boundaries.

10. The proposed calendar which includes at least 180 days of school and sample daily schedule which outlines proposed benchmarks for any innovative school schedule(s).

The DSCA Laboratory School will follow the Frederick County Public Schools calendar linked in below. This is also added in the Appendix.

- **2024-25 School Year (See Appendix A)**

11. For each grade or course in the college partnership laboratory school, provide a detailed description of how the SOL and the corresponding SOL Curriculum Framework will be used as the foundation for curricula to be implemented. Include within the description how the goals and objectives of the curricula will meet or exceed the SOL.

DSCA Program of Studies with SOL Courses/SCED Codes/DE Course Codes

	Grade 11	VA SOL SCED CODES DE Course	**Grade 12**	VA SOL SCED CODES DE Course
Data Science (Math/Stats)	Data Science I or, Algebra II / Data if not previously taken	Data Science SOL 02911 Algebra II 02056	Data Science & AI Innovations II** (**DE or College Credit**)	
Computer Science	Computer Sci Programming I (Python) AP CS A (Java)		Computer Science Programming II*(**DE**) Python AP CS A (Java)*	
Data in Disciplines (Science)	Earth Science Data Analytics (NASA) Bioinformatics (Bio)** Physics I	Earth Science I/SC/Honors 4210 Biology AP Biology/Lab BIO 101/102 Physics I 4510 AP Physics 1 4570 PHY 201	Earth Science Data Analytics (NASA) Bioinformatics (Bio)** Physics I / II*	Earth Science I/SC/Honors 4210 AP Biology/Lab BIO 101/102 Physics I 4510 AP Physics 2 4574 PHY 202
Data Hub Lab (1-2 periods)	-College of Science 240 **		-College of Science 400**	

Work-Based Learning: Research Internships/ Industry Credential/Industry Apprenticeship***	Innovations in Data Science, Computing and Applications -Data Analytics Certificate Level I or II -Personalized Learning in Tableau, Microsoft Power BI and/or Quant Hub for Data Science		-Work-Based Learning: Data Science -Data Analytics Certificate Level II -Personalized Learning in Tableau, Microsoft Power BI and/or Quant Hub for Data Science	
Social Studies	General or AP US History	Virginia & U.S. History AP US History 2319 2360	Virginia and U.S. Government 2440 AP Government & Politics PLS 211/212	2440 04151 04157
English	English 11 General or Honors	1150	English 12 General or Honors	1160
Elective	Data Hub Lab Electives World Language (Virtual VA) Personal Finance (virtual)	Personal Finance 6121 World Language	Data Hub Lab Electives World Language (Virtual VA) Work-Based Learning Apprenticeship	

*Dual-enrolled **GMU College credit ***140 hours = .5 credit; 280 hours = 1 credit

12. Provide a detailed description of how the college partnership lab school will meet all state and federal testing requirements (including at least 95% participation in the *All Students* group and in each student group) and state test administration requirements. Include in the description who (the role) will provide oversight of the testing program in the college partnership laboratory school, who will ensure technology requirements are met, who will provide training to test examiners, proctors and others to ensure test security is maintained, the frequency of training, and how training will be tracked. Also include the process by which test record data quality will be maintained and verified. (Virginia SOL Assessment Program, SOL Test Administration & Development, ESSA Consolidated State Plan, Standards of Quality)

The Lab School Director will work with the DJ Howard Center DDOT and the Frederick County Division Director or Testing to plan and implement all requirements of the Virginia Assessments Program. The DDOT will attend all state level assessment training, and oversee administration of the Virginia assessment program. These staff will

coordinate training of all other instructional staff in accordance with state and federal guidelines. Frederick County Public Schools will ensure the DSCA Lab School meets all state and federal requirements for assessment participation, technology, and test security. Tracking of assessment participation, need for participation, and performance will be maintained in the student information system. Student record uploads to the state assessment system will be conducted in accordance with state guidelines. Additional spreadsheets or digital dashboards may be utilized for tracking purposes to monitor participation rates, pass rates, and any need for expedited retakes. The DDOT and Director of Testing will work closely with educators to ensure that students needing testing accommodations follow state and federal processes to seek approval for any and all accommodations needed. In all of these protocols. the DSCA Lab School will strive to effectively meet all requirements for both the Virginia Assessment Program and the federal accountability metrics.

13. If the college partnership lab school intends on requesting compliance waivers for Board evaluation and approval prior to implementation for any Virginia SOL Assessment Programs or Test Administration & Development, ESSA Consolidated State Plan or Standards of Quality, include details on the following:

No waivers are being requested for the GMU Shenandoah Valley DSCA Laboratory School programs.

14. Provide a description of the school's balanced assessment plan to include all formative and summative assessments, their purpose, their administration periods (when they will be administered), how and when the data will be reported and to whom, who will analyze the data, and when, and how the data will be used to monitor and inform instruction.

The DSCA Laboratory School team will collaborate to create a balanced assessment plan to effectively evaluate students' understanding, skills, and progress in STEM subjects: Data Science, Mathematics and Statistics, Computational Thinking, Science, and Engineering design process. Components include:

- **Formative Assessments**: These assessments occur throughout the learning process and provide ongoing feedback to both students and teachers. They help identify students' strengths and weaknesses, allowing for timely adjustments in instruction. Formative assessments can include science labs, Colab notebooks, class discussions, personalized dashboard feedback in software programs, and peer and self-assessment.
- **Summative Assessments**: Summative assessments are used to evaluate students' learning at the end of a unit, course, or academic year. These assessments measure overall proficiency and mastery of specific skills and concepts. Examples of summative assessments in a Data Science and Computing Applications Lab School might include workforce Data Analytics credentials or certificates earned, final research projects, presentations, and articles submitted for competitions, publications and presentations to authentic audiences such as Business and Industry community partners.
- **Performance Tasks**: Performance tasks require students to apply their knowledge and skills to solve real-world problems or complete hands-on projects from research projects, online certifications and dashboard technical competencies. These tasks

assess students' ability to think critically, collaborate with others, and demonstrate practical application of the iterative Data Cycle components to acquire/collect big data, clean and process data, pose questions from exploratory data analysis, create visualizations, conduct data analysis, modeling to predict and communicate findings for decision making to inform an audience. . Examples of performance tasks include the Engineering Grand Challenges design projects, science experiments, coding challenges, and mathematical modeling activities.

- **Portfolios**: Portfolios are collections of students' authentic work that showcase their achievements, growth, and learning over time. In the DSCA Lab School, portfolios may include samples of students' lab reports, coding projects, design prototypes, research projects, dashboards in data visualization software like Tableau and reflections on their learning experiences.
- **Rubrics and Criteria for Evaluation**: Clear rubrics and criteria will be shared with students in all projects to assess consistently and to provide timely, specific and useful feedback. Rubrics outline specific criteria for success and provide a framework for evaluating students' performance on various tasks and projects. Rubrics can assess both content knowledge and skills such as problem-solving, communication, and collaboration. Data Analytics dashboards will provide clear checklists and rubric criteria required for mastery.
- **Authentic Assessment:** Authentic assessments mirror real-world challenges and situations, providing students with opportunities to apply their Data Science and Computing knowledge and skills in meaningful contexts. Authentic assessments may include simulations, case studies, industry projects, and apprenticeships with Business and Industry partners that allow students to experience the relevance and application of their emerging Data Science skill set beyond the classroom.
- **Multiple Assessment Methods**: The DSCA Lab School will create a balanced assessment plan using multiple assessment methods to capture different aspects of students' learning. By using a variety of assessment types and allowing some student choice in which products are included, teachers can obtain a comprehensive understanding of students' strengths, weaknesses, and progress.
- **Adaptive Assessment**: Adaptive assessment techniques adjust the level of difficulty of questions based on students' responses, allowing for personalized evaluation and targeted intervention. Adaptive assessments in the personalized Data dashboard program allow for students to work at their own pace in a mastery learning competency-based approach to learning technical skills and concepts. The Quant Hub dashboard and certificate programs can help identify students' individual learning needs and tailor instruction accordingly.

By incorporating these components into a balanced assessment plan, educators can effectively evaluate students' understanding, skills, and growth in Data Science and Computing Applications while promoting engagement, critical thinking, and real-world application of data literacy.

15. Describe how program effectiveness will be measured. The description should include measures by which the program will be measured, and the targets for improvement over time. Student performance data should be one of the measures and student performance targets should be established for each of the first five years. The applicant must address how all measures will be established and documented in the first year of operation and how the data will be measured over the successive four-year period before the contract of such school is renewed by the Board.

The effectiveness of the program will be measured through a comprehensive set of metrics to ensure thorough evaluation. One key measure will be student performance data, encompassing academic achievements, such as grades, test scores, and completion rates. Additionally, student engagement and satisfaction surveys will gauge students' experiences and perceptions of the program. Furthermore, retention rates and post-graduation outcomes will be tracked to assess the program's success in preparing students for their chosen career paths.

Working with the lab school governing board a strategic plan will be developed during the planning year 2024 which will outline the overarching goals and objectives of the lab school, serving as a roadmap for its development and growth. Importantly, the goals and objectives established in this plan will directly inform the methods by which program effectiveness will be measured. Student performance will undoubtedly be a key area of focus within these measurement methods. By aligning program effectiveness measures with the goals and objectives outlined in the strategic plan, the lab school can ensure that its efforts are targeted towards achieving its overarching mission and vision for student success.

Targets for improvement over time will be established for each measure to drive continuous enhancement of the program. For student performance data, targets may include year-over-year improvements in average grades, increased standardized test scores, and higher rates of course completion. Similarly, targets for student engagement and satisfaction may focus on achieving higher survey scores and increased participation in extracurricular activities.

Over the successive four-year period, data will be continually measured and monitored to track progress towards the established targets. Regular assessments will be conducted to evaluate the effectiveness of interventions and initiatives implemented to improve program outcomes. Adjustments to strategies and interventions will be made as needed based on ongoing data analysis and feedback.

Documentation of all measures and their corresponding data will be maintained systematically to ensure transparency and accountability. Reports summarizing program effectiveness and progress towards targets will be generated regularly and shared with stakeholders, including the governing lab school board, to inform decision-making and support the renewal process. By establishing clear measures, targets, and processes for data collection and analysis, the program will be well-positioned to demonstrate its effectiveness and drive continuous improvement over time.

16. Who will provide oversight to ensure that the college partnership laboratory school will meet the long-range planning and continuous improvement requirements in SOA (8VAC20-131-400) application of the school quality indicator performance levels to actions?

The DSCA Team along with the governing board will provide SOA oversight as a school within Frederick County Public Schools: GMU PI, Dr. Padmanabhan Seshaiyer, Frederick County Co-PI Dr. Deb Crawford along with members from the leadership including Dr. George Hummer, Superintendent, Director of Secondary Instruction, Assistant Superintendent of Instruction Dr. Jim Angelo, Dr. Julie Myers and Ben Thompson, Principal, Dowell J Howard Center.

17. Details on how the college partnership laboratory school plans to involve parents or guardians and community members within the school.

Parents will play a crucial role in shaping the DSCA Lab School through various avenues of involvement. This includes having parent representatives on the DSCA Advisory Board to ensure their perspectives are incorporated into decision-making processes. Additionally, parents will have the opportunity to provide input into the design of the school's application process, ensuring it reflects their needs and preferences. Multiple virtual informational sessions will be conducted to keep parents informed and engaged, while 10th-grade recruiting activities will be open to parents and their children. These activities include seminars on Careers in Data Science and Computing at Laurel Ridge and Super Data Saturdays at the Smithsonian-Mason Conservation Center. Furthermore, yearly surveys will be administered to parents to gather feedback and suggestions for improvement. Parents will also have the chance to participate in job shadowing opportunities with their children in the Data Science and Computing fields, fostering deeper involvement and understanding of the program.

The following components should be addressed if applicable to the college partnership laboratory school:

18. A detailed description of any alternative accreditation plan, in accordance with the SOA (8VAC20-131-420), for which the college partnership laboratory school will request approval from the Board.

Not applicable

19. A general description of any incentives/partnerships that the college partnership laboratory school intends to have with school divisions to enhance both the educational program of the college partnership laboratory school and the partnering school division(s).

The college partnership laboratory school aims to establish partnerships with school divisions to enhance educational programs for both the laboratory school at Frederick County and for all students in the Commonwealth. These incentives/ partnerships include opportunities for students to earn college credits, engagement in apprenticeship programs, and participating in high school mentored research programs through programs such as the Aspiring Scientist Summer Internship Program (ASSIP) at GMU. Additionally, students will have access to faculty members at both 2-year (LRCC) and 4-year (GMU) institutions as well as Shenandoah Univ and Old Dominion Univ, enriching their educational experience and fostering academic growth.

20. If the college partnership laboratory school plans to use **virtual learning** in its educational program, a description of how virtual learning will be used and estimates of how many students will participate.

The DSCA Laboratory School will utilize virtual learning as a means for GMU, Laurel Ridge and SU university professors to mentor students on their projects based on the research interests of the students in GMU COS 120, 240, 400. Virtual VA World Language electives will be options for students needing World Language credit for an Advanced Studies diploma. Additionally, 20 virtual mentorships with business and industry partners, per year participation in virtual competitions and connecting with online credential coursework to supplement learning in class are examples of flexible use of virtual learning in the DSCA Lab School. For the research courses through GMU, LRCC and SU, we will have 150 students utilize virtual learning per year.

21. If the college partnership laboratory school plans to provide co-curricular and extracurricular programs and how they will be funded and delivered.

The lab school intends to offer select co-curricular and extracurricular opportunities including Future City, Science and Engineering Fair, COMAP High School Competition, STEM and Robotics club, Hack-A-Thons, Video game competitions, National Ocean Sciences Bowl and more. Funding for these clubs will be integrated into the annual budgeting process, supplemented by student fees supported by donations of materials, funds, and volunteer time. We are also hoping to establish relationships with local organizations and businesses to enhance the capacity for providing enriching club experiences of high quality. Funding may also be sourced from various avenues, including grants, donations, foundations and partnerships with local businesses or organizations. Additionally, budget allocations from the school division or college/university partners may contribute to funding these programs. The lab school students will continue to be able to also access home school extracurriculars (sports, music etc.).

IV. ELEMENT 4 – Lab School Governance

The following components must be addressed:

1. Background information on the proposed founding governing board members and, if identified, the proposed school leadership and management team. (See §§22.1-289 through 22.1 -318.2 of the *Code of Virginia*.)

The DSCA Laboratory School will build on the existing Shenandoah Valley CS Regional Partnership, founded in 2019 with eleven school division, Governor's School, and 4-year institutions (GMU, SU) and two-year Community College (LRCC). The school will be governed at three different levels that include:

- The **Level 1 Governing Board of the DSCA Lab School** will be co-chaired by Dr. Hummer, Superintendent of Frederick County Public Schools and Dr. Fernando Miralles-Wilhelm, Dean of George Mason University. They will work with a group of academic leaders including Dr. Cody Edwards, Executive Director at SMSC, George Mason University, Dr. Juliette Myers, Director, Frederick County Public Schools and Dr. Johanna Weiss, Vice President of Academic Affairs at Laurel Ridge Community College and; a group of members representing Workforce Development in Shenandoah Valley including Dr. Sharon Johnson, CEO of the Shenandoah Valley Workforce Development Board, and Dr. Yolanda Shields, CEO of Yes builds and an Appointed Member of the Governor's Workforce Development Board and Shenandoah University. Completing the board will be a high school teacher Mr. Brian Thomas from James Wood High School, two parent representatives and one senior student representative from Frederick County Public Schools. This group will provide diverse expertise and perspectives for guiding the school's strategic direction and operations (See attached letters and **Appendix B** that provide the details of each Board member.)
- The **Level 2 Superintendent's Committee** is composed of superintendents from seven participating school divisions along with the Regional Director of the Governor's School at Mountain Vista. Members of this committee include Mr. Rick Catlett from Clarke County, Dr. Major Warner from Fauquier County, Dr. George Hummer, Superintendent of Frederick County Public Schools, Dr. Melody Sheppard from Shenandoah County, Dr. Antonia M. Fox from Page County, Dr. Chris Ballenger from Warren County, Dr. Jason Van Heukelum from Winchester Public Schools, and Dr. Kelly A Huff, who serves as the Regional Director of the Mountain Vista Governor's School. This committee facilitates collaboration and decision-making among these educational leaders to enhance the quality of education across the region.
- The **Level 3 DSCA Lab School Planning Committee** consists of Dr. Padmanabhan Seshaiyer, Principal Investigator from George Mason University, Dr. Julie Myers, Director of Frederick County Public Schools, Dr. Ia Gomez, Dean of Laurel Ridge Community College, Dr. Deb Crawford, Co-Principal Investigator from Frederick County Public Schools and Mr. Ben Thompson, Principal, Dowell J Howard Center. This committee will collaborate to design, develop and implement plans for the DSCA Lab School, drawing on their expertise in various areas to ensure its success and effectiveness in meeting educational objectives.

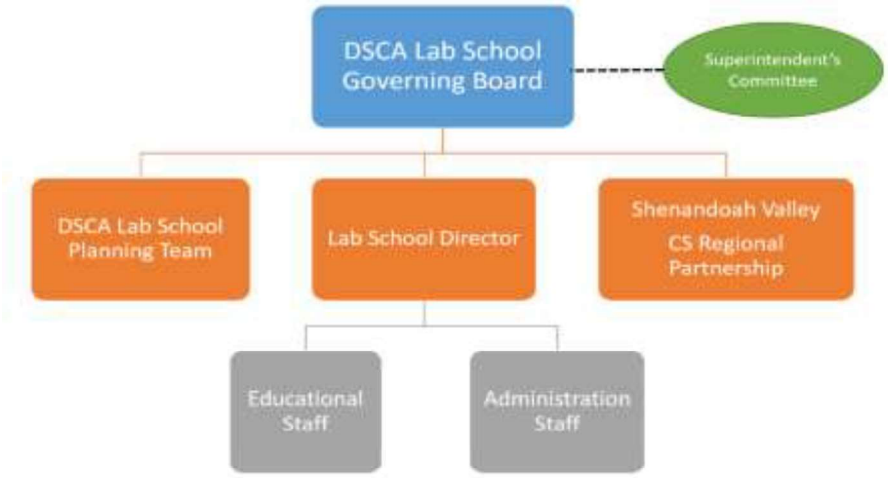
The proposed founding Governing Board is set to collaborate closely with the **Shenandoah Valley CS Regional Partnership**, an existing initiative facilitated by

VDOE Advancing CS Education Grants and led by PI Seshaiyer and Co-PI Dr. Crawford. This partnership includes representatives from each committed school division and various partners that will include: Dr. Jessica Nail from Clarke, Ms. Angie Ashley from Fauquier, Dr. Deb Crawford (also serving as Co-PI) from Frederick, Ms. Leigh Ann Pettit from Page, Mr. Tim Taylor from Shenandoah, Ms. Katie Grimley from Warren, and Ms. Katie Lockhart from Winchester. Additionally, representatives from educational institutions include Dr. Padmanabhan Seshaiyer from GMU (serving as PI), Dr. Chase Mathison from Shenandoah University, and Ms. Heather Burton from LRCC. This collaboration aims to leverage the expertise and resources of its members to advance computer science education in the Shenandoah Valley region effectively.

The DCSA management team will include the Lab School Planning committee and the Lab School Director along with an administrative assistant, a system administrator and three teachers.

2. A well-defined organizational chart showing the roles and responsibilities of all positions included as well as the relationship of the school's governing board to the administrative staff of the college partnership laboratory school. This organizational chart should include the functional reporting structure, including lines of authority and reporting between the school's governing board, school leadership, school management, teaching staff and any functional administrative teams. Also include related functions such as advisory boards, parents/guardians, and teacher councils or external organizations that will play a role in managing the school.

The following description below can be found in the Lab School Legal Operations Document. The organizational chart for the lab school will include three levels described earlier. The Lab School Director will be responsible for the day-to-day operations of the Lab School and will work closely with the Principal Ben Thompson at Dowell J Howard center. The Director will report directly to the DSCA Lab School Governing board, ensuring alignment with strategic goals. The Director will also oversee the educational staff who will teach and administrative staff members including a part-time admin and a systems admin facilitate efficient communication and management within the organization's structure. The organization structure of the DSCA Lab School is illustrated below:



3. A clear description of the functions, roles, and duties of the governing board and its proposed composition and bylaws, the location of the public meeting space, and how it will comply with regulations such as the Freedom of Information Act. The description must detail the specific role of the governing board in the operation and oversight of the college partnership laboratory school.

   In this preliminary By laws document, we outline the envisioned responsibilities and obligations of all the different entities in the organizational structure for the lab school. The lab school governing board will include a clerk who will work with the lab school Director to oversee the fulfillment of all Freedom of Information Act (FOIA) requests and establish a platform for the dissemination of documents before and after board meetings. To ensure transparency, all board documents will be accessible through links posted on the lab school's official website. Furthermore, meetings will take place at the college partnership lab school at Dow J Howard and will be open to the general public.

4. A description of the governing board's relationship with the affiliated public or private institution of higher education and its Board of Visitors, any local school boards, parents/guardians, and community organizations.

   The proposed lab school governing board brings together vital stakeholders from the GMU, LRCC alongside representatives from each participating school division. Superintendents from these divisions play an important role in providing input on key decisions as the DSCA lab school's design progresses, initially through the Superintendent's committee and eventually to the established DSCA governing board. Similarly, PI Seshaiyer and Co-PI Crawford will provide regular updates on the DSCA lab school's development to the higher education leadership at GMU and LRCC.

5. Explain the decision-making processes the governing board will use to develop school policies.

   The decision-making process for developing school policies by the DSCA lab school governing board entails several steps. Initially, the lab school Director will propose recommendations for school policies working with the DSCA planning committee. These proposals will be presented to the Shenandoah Valley Regional CS Partnership who will present to their respective Superintendents for review and feedback. Following this, the recommendations will be compiled by the Director and the Planning team which will then be brought forward to the lab school governing board who has the authority to create, manage and operate the lab school. This comprehensive approach ensures that proposed policies undergo thorough review and consideration from relevant stakeholders before being finalized and implemented.

6. Portray how the governing board will involve parents/guardians and community members in governing the school.

   Parents/Guardians and Community Members will play vital roles in the governance of the school. Through their participation in the election of school board members for each participating school division, they indirectly contribute to the selection process for the lab DSCA school governing board. GMU will select the members of the governing board. Additionally, they will have the opportunity to engage in the Business and Community Member Advisory Groups, providing valuable input and perspectives. Specifically, for parents, they will have the chance to participate to share insights and recommendations for consideration by the Planning team and

Superintendent's committee as needed. This inclusive approach ensures that the voices of parents and community members are heard and valued in the governance of the school.

7. Admissions Policy (see 22.1-349.3 of the *Code of Virginia*.) Provide a detailed description of the overall college partnership laboratory school lottery process. The detailed process description should include a) strategy and methodologies for process design, b) public communication strategies, c) process implementation, and c) ongoing management of the following topic areas:

   (1) marketing strategies to reach all demographic groups residing in the Commonwealth,
   (2) admitting students to the college partnership laboratory school,
   (3) management of the enrollment lottery waiting list,
   (4) managing statutorily allowed preferences,
   (5) managing student withdrawals and transfers, and
   (6) audit process.

   See *Best Practices for Administration of Lottery* from the CPLS Standing Committee for more information.

Once convened, the Governing Board will approve the recruitment plan for the DSCA Lab School, which encompasses several vital elements. These include distributing flyers to all 10th graders in participating schools making information available online for any interested student, highlighting the opportunities in Careers in Data Science and Computing at LRCC. Additionally, the plan involves offering a student-led research program focused on data science and computing, conducted virtually through GMU COS 120 for 2 credits. Informational sessions for parents and students will be hosted at parent nights, virtual sessions, and at Dowell J Howard during an Open House in the Data Hub. Furthermore, flyers will be shared via Peach Jar to all high school students, inviting them to attend Super Data Saturdays at the SMSC facility.

V. ELEMENT 5 – Laboratory School Management Structure

The following components must be addressed:

1. A detailed staffing chart showing all planned positions for the college partnership laboratory school. This organizational chart should include all planned positions for the school's leadership team, administration team, teaching staff, teaching assistants/pre-licensure student teachers, specialized instructional support positions and any other and any positions. This staffing chart should include (1) Position Title, (2) Brief Overview of the Position Responsibilities and SCED assignment, if any, (3) Licensure Requirements, if any, (3) Planned Hiring Date, (4) Number of Positions Required (5) Reporting Relationship, and (6) Position Professional Development Requirements, if any.

The proposed DSCA lab school day to day operations staff will include the Director of the Lab School, a part-time administrative assistant, a full-time Systems Administrated and lab technician and three lab school teachers. All Lab School staff will be employees of GMU. Below we describe each position with their role in detail.

- **DIRECTOR OF THE LAB SCHOOL**
  - ***Overview of Position***: As the Director of the Lab School, the appointed individual will assume a pivotal role in overseeing the day-to-day operations of this innovative high school college partnership laboratory. Their responsibilities will span a wide spectrum, encompassing various facets of management, coordination, and leadership. They will be tasked with ensuring the smooth functioning of all operational aspects, from academic programs to administrative procedures. This includes managing faculty and staff, overseeing curriculum development, coordinating with partner institutions, liaising with stakeholders, and maintaining the overall integrity and effectiveness of the educational environment. Additionally, the Director will play a crucial role in fostering a culture of collaboration, innovation, and excellence within the school community, aligning its objectives with the broader mission and vision of the institution. They will serve as a guiding force, driving initiatives to enhance student learning outcomes, promote academic achievement, and cultivate a supportive and inclusive learning environment conducive to personal and intellectual growth.
  - ***Licensure Requirements:*** Licensure requirements for the DSCA lab school Director typically include a combination of educational attainment, professional experience, and administrative credentials. A bachelor's degree in education, educational leadership, or a related field is usually a minimum requirement, a master's degree or higher is preferred. Additionally, relevant experience in teaching, educational administration, and curriculum development is essential. Strong leadership skills, communication abilities, and a demonstrated commitment to innovative educational practices are often considered crucial qualifications for the role.
  - ***Planned Hiring Date***: Jan 1, 2025
  - ***Reporting Relationship:*** Will report to the Lab School Governing Board
  - ***Position PD Requirements:*** Ongoing professional development and adherence to ethical standards in education are expected for maintaining licensure.

- **ADMINISTRATIVE ASSISTANT**
    - Overview of Position: As the administrative assistant reporting to the Lab School Director, the individual will play a crucial role in supporting the efficient functioning of the school's administrative operations. Their responsibilities will involve providing comprehensive administrative support to the Director and assisting in the smooth execution of various tasks and initiatives. This includes managing schedules, coordinating meetings and appointments, handling correspondence, and maintaining accurate records and documentation. The administrative assistant will also be responsible for managing communication channels within the school community, responding to inquiries, and facilitating communication between staff, students, parents, and external stakeholders. Additionally, they may assist in organizing events, managing budgets, and coordinating logistics for school activities and programs. With strong organizational skills, attention to detail, and proficiency in office software and communication tools, the administrative assistant will ensure that the Director's office operates efficiently and effectively, enabling them to focus on strategic priorities and leadership responsibilities. Their role will be integral to the smooth functioning of the Lab School, contributing to its overall success and effectiveness in fulfilling its educational mission.
    - ***Planned Hiring Date:*** August 15, 2024
    - ***Reporting Relationship:*** Will report to the PI, Co-PI until a Director of the Lab school is selected after which they will report to the Director.
    - ***Position PD Requirements:*** Professional development opportunities may include workshops or courses in areas such as, project management, budgeting, and personnel management. Ongoing training and development in emerging trends and best practices in education administration are also essential to ensure effectiveness in supporting the DSCA lab school director and managing daily operations of the lab school.

- **LAB SCHOOL SYSTEM ADMINISTRATOR AND TECHNICIAN:**
    - ***Overview of Position***: As the Lab School Technology Systems Administrator, the individual will hold a critical role in ensuring the seamless operation and integration of technology within the high school lab environment. Their primary responsibilities will involve managing and maintaining the school's technological infrastructure, including hardware, software, networks, and systems. This entails overseeing the installation, configuration, and troubleshooting of computer systems, peripherals, and software applications used in the lab school. The Technology Systems Administrator will also be responsible for implementing security measures to safeguard sensitive data and ensure compliance with regulatory requirements. Additionally, they will play a key role in providing technical support and training to faculty, staff, and students, helping them leverage technology effectively to enhance teaching, learning, and research activities. With a strong understanding of emerging technologies and trends, the Technology Systems Administrator will continuously evaluate and recommend innovative solutions to optimize the lab school's technological capabilities and support its educational objectives. Also, assisting as the Lab Technician, the individual will serve as a hands-on

facilitator, supporting the practical aspects of laboratory-based learning experiences. Their responsibilities will involve preparing materials, equipment, and resources for laboratory sessions, ensuring they are properly set up and maintained. The Lab Technician will also provide assistance and guidance to students and instructors during lab activities, helping to troubleshoot technical issues and ensure safety protocols are followed. Additionally, they will be responsible for inventory management, including ordering, organizing, and maintaining supplies and equipment needed for lab experiments and demonstrations. Collaborating closely with faculty, the Lab Technician will contribute to the development and refinement of laboratory exercises, experiments, and projects, aligning them with curricular objectives and educational standards. Their role will be instrumental in fostering a dynamic and engaging learning environment within the lab school, where students can explore, experiment, and apply theoretical concepts in real-world contexts.

- ***Licensure Requirements:*** The licensure requirements for a systems administrator in the DSCA lab school typically will focus more on technical qualifications and certifications rather than traditional educational licensure. Generally, a bachelor's degree in computer science, information technology, or a related field is expected. Additionally, professional certifications such as CompTIA A+, CompTIA Network+, CompTIA Security+, Cisco Certified Network Associate (CCNA), or Microsoft Certified: Azure Administrator Associate may be required or preferred. Experience with system administration, network management, cybersecurity, and database management are essential. Candidates should also demonstrate proficiency in relevant programming languages, operating systems, and software applications commonly used in educational environments. Given the nature of the school, we will also expect this position to have teacher licensure to teach dual enrollment in Computer Science topics.
- ***Planned Hiring Data:*** August 15, 2024
- ***Reporting Relationship:*** Will report to the PI, Co-PI until a Director of the Lab school is selected after which they will report to the Director.
- ***Position PD Requirements:*** Professional Development on specialized licensure or certifications related to educational technology or data management may be required for this position each year. Continuous professional development to stay updated with the latest technologies and best practices in systems administration is crucial for maintaining licensure and ensuring effective support for the lab school's computing infrastructure.

- **LAB SCHOOL PERMANENT TEACHING FACULTY:**
  - **Overview of Position**: The Lab School teachers hired for the DSCA college partnership lab schools play a crucial role in preparing students for success in the fields of data science, computing, and related disciplines. Their role encompasses several key responsibilities tailored to the specific focus areas of data and computing:
    - **Curriculum Development and Implementation**: These teachers collaborate with educational partners and industry professionals to develop and implement curriculum that reflects current trends,

technologies, and best practices in data science and computing. They design engaging and relevant lessons that integrate theoretical concepts with hands-on, practical applications, ensuring that students develop essential skills and competencies in data analysis, programming, and computational thinking.

- **Instruction and Assessment:** Lab School teachers deliver instruction using a variety of instructional strategies and methodologies, catering to the diverse learning needs and preferences of students. They facilitate interactive and experiential learning experiences, such as coding workshops, data analysis projects, and simulations, to deepen students' understanding and mastery of key concepts. Additionally, they design and administer assessments to evaluate student progress and provide timely feedback for continuous improvement.
- **Integration of Technology**: Given the focus on data and computing, Lab School teachers leverage technology extensively in their teaching practices. They incorporate software tools, programming languages, data visualization platforms, and other digital resources into their instruction to enhance student learning and engagement. They also teach students how to use technology responsibly and ethically, emphasizing principles of data privacy, security, and digital citizenship.
- **Industry Partnerships and Experiential Learning**: Teachers foster partnerships with industry professionals, research institutions, and technology companies to provide students with real-world exposure and experiences in data science and computing. They organize guest lectures, industry visits, internships, and collaborative projects that enable students to apply their skills in authentic settings and gain insights into career pathways and opportunities.
- **Professional Development and Growth**: Lab School teachers actively engage in professional development activities to stay abreast of emerging trends, research findings, and educational innovations in data science and computing. They participate in workshops, conferences, and training programs to enhance their subject matter expertise, pedagogical skills, and technology proficiency, ultimately benefiting their students and the broader educational community.

Overall, Lab School teachers in data and computing college partnership lab schools play a pivotal role in equipping students with the knowledge, skills, and mindset needed to thrive in the digital age and pursue further education or careers in data science, computing, and related fields.

- ***Licensure Requirements:*** Licensed in the content they will teach will be the most crucial ingredient for this position. A bachelor's degree in computer science, information technology, or a related field is often the minimum requirement with an approved teacher education program, which includes coursework in education theory and practice, as well as student teaching experience. In addition to educational credentials, teaching faculty should have in-depth knowledge and expertise in areas such as programming languages, data science, computer systems, cybersecurity, data analysis, and related topics. Professional certifications in relevant technologies may also be beneficial.

- ***Planned Hiring Date:*** Aug 15, 2024
- ***Reporting Relationship:*** Will report to the PI, Co-PI until a Director of the Lab school is selected after which they will report to the Director.
- ***Position PD Requirements:*** This may involve attending workshops, conferences, or continuing education courses through LRCC and GMU related to computer science education and pedagogy.

2. Detailed plans for the recruiting and developing school leadership and staff including a timelines/calendar for recruiting, recruiting strategies, plan for recruiting and supporting a diverse staff, and the position responsible for college partnership laboratory school staff selection. Also include a plan for onboarding/orientation of new staff members and what entity is responsible.

The recruiting and developing School Leadership and staff plan for the proposed DSCA lab school will include:

- ***Timelines/Calendar for Recruiting***:
  - Initial planning phase through the planning grant in July 2024 - August 2024, will include identifying staffing needs, establish recruitment timeline, and develop job descriptions.
  - Recruitment phase (Sept - Dec 2024): Using the left-over funds form the planning grant and the lab school start up funds upon approval, we will advertise positions, conduct interviews, and select candidates.
  - Onboarding phase (Jan - June 2025): We will orient new staff members and facilitate their transition into their roles and in a staggered way based on their positions.
- ***Recruiting Strategies***: We will utilize multiple channels for advertising vacancies, including online job boards, professional networks, educational institutions, and industry associations. We will also actively engage in targeted outreach to attract diverse candidates, including underrepresented groups in data science and computing fields. We will also collaborate with partnering school divisions, to identify and recruit qualified candidates. We also hope to leverage our current Shenandoah Valley CS Regional Partnership and their respective newsletters, social media platforms and digital marketing strategies to increase visibility and reach a broader audience of potential applicants.
- ***Plan for Recruiting and Supporting a Diverse Staff***: During the planning grant phase in 2024, we will develop inclusive job descriptions that emphasize the organization's commitment to diversity, equity, and inclusion. We will offer diversity training and professional development opportunities for hiring managers and interview panels to promote fair and equitable hiring practices. We will also provide ongoing support and mentorship for new hires, particularly those from underrepresented backgrounds, to ensure their success and retention within the organization.
- ***Position Responsible for Staff Selection***: The DSCA Planning committee and the Lab School Director will oversee the selection process for all staff positions, including the administrative assistant, systems administrator, and teaching faculty. The Director will work closely with a designated hiring committee comprised of key stakeholders to review applications, conduct interviews, and make hiring decisions.

- ***Plan for Onboarding/Orientation of New Staff Members***: New staff members will participate in a comprehensive onboarding program designed to familiarize them with the organization's mission, values, policies, and procedures. The Lab School Director, in collaboration with the DSCA Planning team, will coordinate and facilitate the onboarding process for new hires. The onboarding program will include orientation sessions, training workshops, mentorship opportunities, and introductions to key personnel and resources. Ongoing support and professional development will be provided to help new staff members acclimate to their roles and contribute effectively to the organization's goals and objectives.
- ***Entity Responsible***: The Lab School Director and DSCA planning team will be primarily responsible for overseeing the recruitment, selection, and onboarding processes for all staff members. Human resources personnel from Frederick County Public Schools may also provide support and guidance throughout the hiring and onboarding phases.

By implementing these detailed plans and strategies, the DSCA college partnership laboratory school can effectively recruit and develop a talented and diverse team of school leadership and staff members who are committed to advancing the school's mission and providing high-quality education to students.

The breakdown of the requested budget for the startup year and five following years are included in the DSCA Lab School Budget document.

3. Assurance that the applicant will meet the conditions of § 22.1-349.9 of the *Code of Virginia* which states that the college partnership laboratory school personnel will be employees of the Institute of Higher Education and/or the Eligible Entity and be granted the same employment benefits given to professional, licensed personnel in public schools in accordance with the agreement between the college partnership laboratory school and the Board.

The personnel of the DSCA Lab School will be directly hired and employed by GMU as the IHE. Lab school employees will have opportunities for co-teaching alongside GMU and LRCC staff when appropriate. All licensed personnel will be recruited by GMU either as adjunct faculty or adjunct professional development staff. The onboarding process will be tailored to incorporate elements of both GMU and Frederick County Public Schools' onboarding procedures, ensuring compliance with GMU policies and K-12 instructional guidelines at the laboratory school.

4. List the qualifications and appropriate licenses and endorsements that each position must have to perform the job function(s) for the college partnership laboratory school's leadership and proposed teachers and other staff. Provide information about what entity is responsible for submitting licensure requests to VDOE and ensuring staff maintain their license during their renewal cycle. If individuals have already been identified for specific positions, provide their names, qualifications and/or teaching license number as an Appendix – Laboratory School Teacher/Staff Information.

During the planning grant (by Dec 2024), we hope to identify and fill the DSCA lab school leadership and faculty positions with the relevant hires to start on Jan 1, 2025. Careful consideration will be given to selecting educators with data and computing experience with

a passion for interdisciplinary approaches and working with students of diverse abilities. Candidates must also demonstrate a willingness to collaborate with higher education partners including GMU and LRCC as well. Below are the license and endorsement requirements expected for prospective hires:

- **Lab School Director**: Administrative License and Teaching License;
- **Systems Admin and Data Lab Technician**: Network Specialist 3, Teaching License, VA BIT and/or CS Teaching endorsements
- **Teachers (Faculty)**: endorsement in the content area for which they are providing instruction. Some positions will need to obtain multiple content endorsements.
- **School Counselors**: We will work with the Principal, Mr. Ben Thomson to engage the Dowell J Center counselors who all have license in School Counseling

5. Describe the plan to meet the conditions in § 22.1-349.9 of the *Code of Virginia*, which states that "teachers who work in a college partnership laboratory school shall hold a license issued by the Board or, in the case of an instructor in the Board-approved teacher education program of the institution of higher education, be eligible to hold a Virginia teaching license. Teachers working in a college partnership laboratory school shall be subject to the requirements of §§ 22.1-296.1, 22.1-296.2, and 22.1-296.4 that are applicable to teachers employed by a local school board."

   The DSCA Lab School Team will work with GMU, the fiscal agent, for processing hiring and general human resource services, utilizing George Mason University's hiring policies, including meeting state legal requirements for licensure or alternative licensure.

6. Describe the school's leadership and teacher employment policies by identifying which entity's employment policies pertain to which particular position and describe the process of notification to all school employees of the terms and conditions of employment. If possible, provide a sample of the human resource policy for the school that is consistent with state and federal law.

   The DSCA Laboratory governing board will adopt policies from George Mason University found in **Appendix C** that can be used for K-12 instructors to insure that there is alignment between both K-12 and higher education policies.

7. Describe the plan for annual performance evaluations, including who will be conducting the evaluations for each position and what evaluation standards will be used for each position. Such performance evaluation plans must be consistent with the policies of the institution of higher education.

The plan for annual performance evaluations for the lab school director, administrative assistant, systems administrator, and teaching faculty at the DSCA College Laboratory School will adhere to the policies of GMU, to ensure consistency across all evaluations. Each position will have designated evaluators and specific evaluation standards tailored to their roles as follows:

- **LAB SCHOOL DIRECTOR**:
  - ***Evaluators***: The Lab School Director's performance evaluation will be conducted by a DSCA planning committee comprising representatives from GMU, Frederick County Public Schools, and other relevant stakeholders.
  - ***Evaluation Standards***: The Director's performance will be assessed based on criteria such as leadership effectiveness, strategic planning, collaboration with partners, staff management, financial management, and adherence to the school's mission and goals.
- **LAB SCHOOL ADMINISTRATIVE ASSISTANT**:
  - ***Evaluators***: The Lab School Director who will be the immediate supervisor of the Administrative Assistant will conduct the performance evaluation.
  - ***Evaluation Standards***: The evaluation will assess the Assistant's performance in areas such as administrative support, organizational skills, communication, teamwork, and responsiveness to the needs of staff and stakeholders.
- **LAB SCHOOL SYSTEMS ADMINISTRATOR AND TECHNICIAN**:
  - ***Evaluators***: The Systems Administrator and technician's performance evaluation will be conducted the Lab School Director with expertise in technology and systems administration, possibly including PI Seshaiyer, Co-PI Crawford and the Principal of Dowell J Howard.
  - ***Evaluation Standards***: The evaluation criteria will include technical proficiency, system maintenance and troubleshooting skills, responsiveness to IT issues, adherence to security protocols, collaboration with staff and stakeholders, and contribution to technological advancements within the lab school.
- **LAB SCHOOL TEACHING FACULTY**:
  - ***Evaluators***: The performance evaluation of teaching faculty will be conducted by the DSCA planning committee together with Lab School Director.
  - ***Evaluation Standards***: The evaluation will assess the teaching faculty members' effectiveness in areas such as curriculum delivery, student engagement, assessment practices, professional development participation, collaboration with colleagues, adherence to educational standards, and contribution to student success and achievement.

8. A plan that addresses the qualifications of the teachers and administrators at the college partnership laboratory school, including compliance with state law and regulations regarding Board licenses and endorsements. (*See* § 22.1-349.9 of the *Code of Virginia*.)

In the proposed DSCA College Partnership Lab School, adherence to standards of quality mandates that all positions necessitating licenses and endorsements be strictly followed. As described earlier, the roles require specific licenses and endorsements, along with the type of licensure deemed essential. All eligibility criteria for educators and administrators within the college partnership laboratory school will align with Frederick County Public Schools policies and procedures, in accordance with state regulations. All K-12 educators will possess teaching licenses, while administrative personnel will hold administrative licenses. Opportunities will be extended to educators to pursue additional endorsements aimed at augmenting their skill sets. These endorsements will correspond to the specific content areas taught, as mandated in secondary education standards.

9. Provide an overview of the high quality professional development programs associated with the mission and proposed instructional program. Describe how faculty and staff will access the professional develop and if the school is providing professional development days, reimbursements for tuition, registration, travel, and substitutes, if needed. (*See* § 22.1-253.13:5 of the *Code of Virginia*.)

The proposed DSCA lab school aims to enhance the quality of its professional development programs by harnessing a variety of data science and computing resources. These resources include tapping into (1) the professional learning materials provided by the Shenandoah Valley CS Regional Partnership Grant, (2) the array of professional learning resources accessible through Virtual Virginia, (3) resources developed for the high school Data Science Class that PI Seshaiyer and Co-PI Crawford has led for the state made available for the DSCA lab school, and (4) deliberate internal cultivation of professional learning priorities and allocation of resources within the lab school.

The Shenandoah Valley CS Regional Partnership has been actively curating a selection of opportunities available on Canvas and Go Open VA, enabling educators and service professionals to enhance their skill sets and pursue continuous improvement. Additionally, Virtual Virginia's Professional Learning branch, managed at the state level, offers various opportunities for educators to further develop their skills and explore diverse interests. With the integration of the high school data science curriculum as well as the research innovation, design thinking classes from GMU and workforce electives from LRCC, the DSCA lab school will prioritize supporting educators not only in their initial preparation but also in ongoing professional development efforts, benefiting educators across the region, including those within the school itself.

Through collaborative efforts between educators and professors, opportunities for collective and individual growth will be explored and pursued. Furthermore, the school will establish specific professional learning priorities as integral components of its continuous improvement plan. These priorities may be addressed through the aforementioned opportunities or outsourced as needed, based on available expertise. For instance, a primary goal of the school will be to ensure all teachers receive training on various educational frameworks including project-based learning, inquiry-based learning, challenge based learning, experiential learning, learning by doing, 5E instructional design and more. Accordingly, funds will be allocated to ensure educators can undergo training on these frameworks during the inaugural year, fostering both individual growth and team cohesion within the school community.

10. An explanation of any partnerships or contractual relationships central to the college partnership laboratory school's operations or mission, including information regarding any partnerships with school divisions to provide educational or ancillary services. Contractual relationships include procuring the services of an education management organization, food services, transportation, school health services, custodial services, and security services. (*See* § 22.1-349.3 C of the *Code of Virginia*.)

The DSCA Lab school will contract with Frederick County to procure services of education management organizations, transportation, food, health, custodial and security services. Each year the students will take four core courses and a CTE research innovations lab course in each grade 11th and 12th through a full-day program.

The proposed planning grant will help us to align the courses, certifications and credits between the three partners in the lab school. All students will also have the opportunity to earn directed online data analytics-focused certifications through companies such as Google and Amazon.Proposed ideas to align and organize will include the Students in the lab school will also have the opportunity to earn an Associate's Degree from LRCC, DE credit from GMU and Certifications from partnering organizations. The proposed Lab School will offer a comprehensive high school curriculum while focusing on broad content areas in DSCA content.

11. Information and materials indicating how parents/guardians, the community, and other stakeholders were involved in developing the application for the college partnership laboratory school. A description of how parental involvement and communication will be used to support the educational needs of the students, the school's mission and philosophy, and its educational focus.

Upon approval of this application for intial start-up and per-pupil funding, we will build on the stakeholder summits for DSCA governing board, parents, community members, and Frederick County Public Schools) through the planning grant to create the application, process and procedures and communication plan. A survey for students and parents will be given as part of the application process with data used to evaluate the process the first year to use in future year adjustments.

12. Provide a draft of a *Student Code of Conduct*, student handbooks, and other governing policies that addresses student behavior, discipline, and participation in school activities. Include policies and procedures governing suspension and expulsion of students. The plan should identify the role of teachers and administrators in discipline and mentoring. The plan must also identify disciplinary policies for special education students. Also describe how a parent could appeal the decision of a school administrator through a grievance process. Provide any drafts as Appendix – Student Handbook.

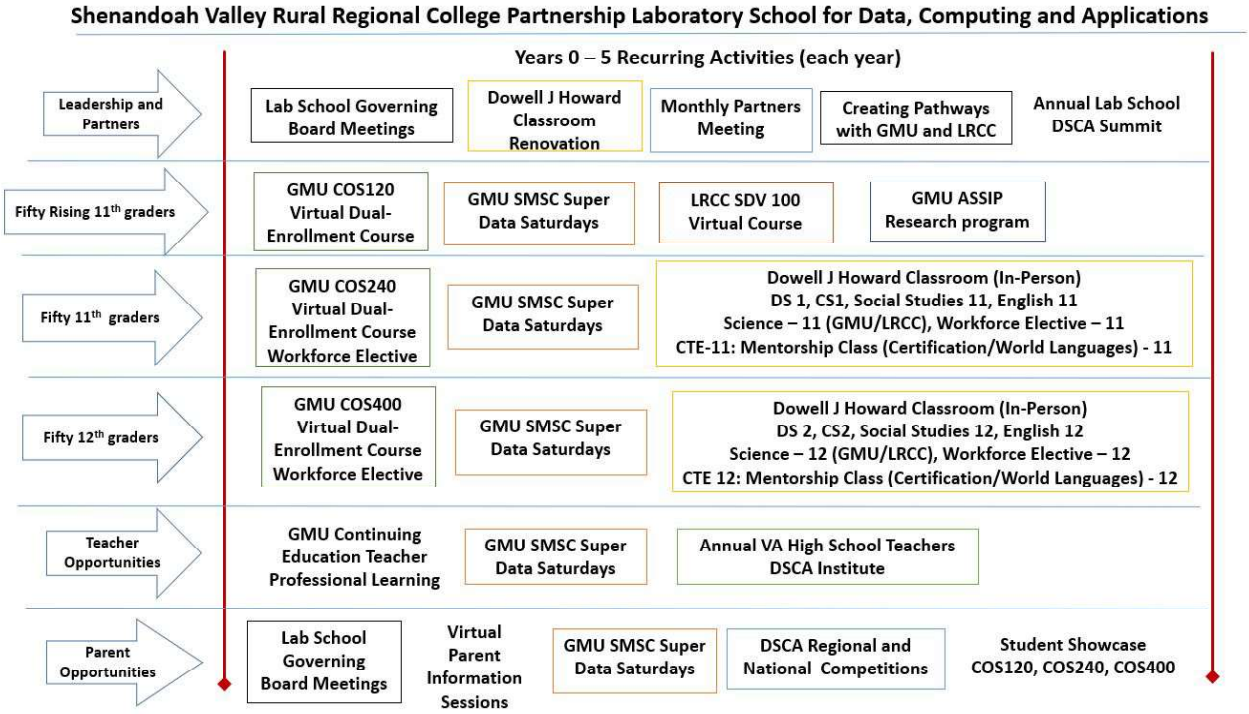
This handbook sets forth the Frederick County Public Schools division rules and expectations for student conduct in our schools, as well as other helpful information necessary for students to reach the ultimate goal of high school graduation. These are each **hyperlinked** below. Refer to **Appendix D**.

- Acceptable Computer System Use (323R)
- Access to Education
- Administration of Medications to Students (437P)
- Administration of Surveys and Questionnaires (619P)
- Character Education
- Child Abuse and Neglect Reporting (508P)
- Code of Student Conduct (402R-A)
- Compulsory Attendance/Exclusions and Exemptions from School Attendance (405P)
- Discipline for Actions Occurring Outside of School
- Disciplining Students with Disabilities (402R-B)
- Disciplining Students with Disabilities for Infliction of Serious Bodily Harm (402R-C)
- Disposition of Records
- Eating Disorders
- Electronic Mail, Social Media and Networking (567R-B)
- FCPS Rapid Communication System
- Health Screenings
- Homeless Students (405R-B)

- Homeless Transportation
- Homework (314P)
- Human Rights (218P)
- Insurance for Injuries
- Loss, Theft or Damage of Personal Property
- Make-Up Work, Late Arrival/Early Release From School (410R)
- Notice of Non-Discrimination
- Offsite Instruction and Virtual Courses (310P)
- Online Payment System
- Emergency Procedures
    i. 221P - School Crisis, Emergency Management and Medical Emergency Response Plan
    ii. 221R - School Crisis and Emergency Management Plan
    iii. 223P - Safety Drills
    iv. School Emergency Guide
- Equal Education Opportunity/Non-Discrimination (403P)
- Evaluation, Grade Assignment and Reporting to Parents
    v. 316P - Evaluation and Grade Assignment
    vi. 316R-A - Evaluation and Grade Assignment
    vii. 316R-B - Reporting to Parents
- Parental Responsibility and Involvement Requirements
    viii. §22.1-279.3. Parental responsibility and involvement requirements (Excerpted from the Code of Virginia (1950), as amended)
    ix. 617P - Parental and Family Engagement
    x. 627P - Parental Rights and Responsibilities
- Police Drug Dogs
- Policy Manual
- Portable Communication Devices (219R)
- Sex Offender and Crimes Against Minors Registry Information (226P)
- Prohibition Against Harassment and Retaliation (429P)
- Prosecution of Juveniles as Adults
- Remedial Instruction (326P)
- Returned Checks
- School Bus Safety and Driver Responsibilities (702R-A)
- School Guidance and Counseling Programs (324P)
- School Nutrition Services Accounts
- Student Absences, Excuses, Dismissals (410P)
- Student Fees, Charges and Collections (729P)
- Student Fee Waiver or Reduction Form (729P - Appendix)
- Student Scholastic Records and Transcripts
    xi. 416P - Student Scholastic Records
    xii. 416R-A - Student Scholastic Records
    xiii. 416R-B - Student Transcripts
- Student Search and Seizure (439P)
- Title I
- Video Surveillance
- Work Permits/Employment Certificates

13. A detailed school start-up plan that identifies major tasks, timelines, and responsible individuals for accomplishing each task noted in the start-up plan.

A detailed timeline with tasks/activities and responsible members is in Appendix G.



The illustration indicated the various project activities and milestones that is being proposed for various stakeholders including leadership from all partner districts, students in 10th grade, 11th grade and 12th grade as well as teacher and parent opportunities. The program activities are color coded to be either:

- **Curricular**: College course credit opportunity through GMU Innovations in Research in Data and Computing (COS120) and Innovations in Data Science in the age of AI (COS240)
- **Research**: College course credit opportunity to do research on data and computing through GMU Aspiring Scientist Summer Internship Program (ASSIP) research program and a human centered design thinking capstone experience (COS400)
- **Career**: Course work on College Success Skills through LRCC (SDV 100) which will provide overviews of college policies, procedures, curricular offerings and assists students toward college success through information regarding effective study habits, career and academic planning, and other college resources available
- **Professional development**: Continuing education and Professional learning and Annual VA High School Data Science and Computing to enhance pedagogical practices for teacher upskilling and reskilling
- **Outreach**: GMU Super Data Saturdays that will attract students, teachers and parents to come to GMU-SMSC campus
- **Community based**: Parent information session on the state-of-the-art developments in DSCA related areas and continue to get their input to enhance the curriculum with community-based projects.
- **Competitions**: DSCA Regional and National Competitions (e.g. Future City, STS Regeneron, Technovation Girls, Cyberpatriot, National Robotics Challenge)

- **Workforce Elective**: Students will have the opportunity to earn additional certifications, apprenticeship opportunities and internship opportunities with involvement of the Shenandoah Workforce Development.

Assessing the effectiveness of the DSCA lab school will indeed require a longitudinal study to comprehensively understand its impact over time. Such a study would track students' academic progress, career outcomes, and overall development from enrollment through post-graduation stages. GMU will help to lead these longitudinal studies that will typically involve collecting data at multiple points throughout students' educational journey to analyze trends and identify patterns of success. By collecting and analyzing data over the five years of the lab school, a longitudinal study can help to provide a comprehensive understanding of the effectiveness of the DSCA lab school in preparing students for future career pathways in Data Science and Computing.

14. A general description of any operational incentives/partnerships that the college partnership laboratory school intends to have with school divisions to enhance both the educational program of the college partnership laboratory school and the partnering school division(s).

The proposed DSCA College Partnership Laboratory School endeavors to establish operational incentives and partnerships with school divisions to enrich both its educational program and the partnering school divisions' offerings. By providing space for the college partnership laboratory school, DSCA offers a valuable resource to the partnering school divisions, particularly in the Shenandoah Valley rural region experiencing growth. Integrating the statewide developments in high school data science and computing will not only to cultivate high-quality future educators but also to address the teacher shortage within surrounding school divisions. Moreover, the laboratory partnership school aims to collaborate with continuing and professional studies to support partner divisions in jointly planning learning opportunities and enhancing educator capacity in data and computing. Some specific programs we plan to include:

- **Opportunities for Students**: The DSCA lab school offers a range of exciting opportunities for the students to engage in research, apprenticeships, and internships.
    - **Research Opportunities**: The DSCA lab School students and all those from the partnering school districts will have the opportunity to work closely with the GMU ASSIP (Aspiring Scientist Summer Internship Program) as well as earn college credit through completion of this through coursework on Research on Data Science, Computing, AI Innovations, machine learning, data analysis, cybersecurity, and software development. Through these experiences, students can develop critical thinking, problem-solving, and research skills while making meaningful contributions to the field. They can also work alongside faculty, graduate students, and industry professionals on cutting-edge research initiatives exploring various aspects of data science and computing.
    - **Apprenticeships**: The lab school is partnering with the Shenandoah Valley Workforce board to identify apprenticeship programs where high school students can gain practical, hands-on experience working in data science and computing-related roles. These apprenticeships may be conducted in collaboration with local businesses, research institutions, and technology

companies. Apprenticeship opportunities may include roles such as data analyst, software developer, cybersecurity specialist, and data scientist to serve business and industry in the Shenandoah Valley. Students will work under the guidance of experienced professionals, acquiring valuable skills and industry insights while contributing to real-world projects.

- **Internships:** The DSCA school students will have the opportunity to participate in internships with industry partners, gaining exposure to professional environments and applying their skills in data science and computing in real-world settings. Internship opportunities may be available at technology firms, research laboratories, government agencies, and other organizations involved in data-driven industries. Students will have the chance to work on projects, collaborate with professionals, and build their professional networks. These opportunities provide high school students with valuable hands-on experiences, exposing them to the diverse career paths and opportunities available in data science and computing fields.
- **Certifications**: In addition, the DSCA labs school also will offer opportunities for high school students to pursue certifications in data and computing fields. These certifications provide students with formal recognition of their knowledge and skills, enhancing their competitiveness in the job market and college admissions process. Students can pursue certifications in various areas of data science and computing, including:
    - **Data Analysis and Visualization**: Certifications in data analysis and visualization equip students with the skills to collect, analyze, and interpret data to make informed decisions. These certifications often cover topics such as statistical analysis, data visualization techniques, and data-driven decision-making.
    - **Programming and Software Development**: Certifications in programming and software development focus on programming languages such as Python, Java, and C++, as well as software development methodologies and practices. These certifications demonstrate students' proficiency in coding and software development, essential skills in today's technology-driven world.
    - **Cybersecurity**: Certifications in cybersecurity prepare students to protect digital assets and systems from cyber threats. These certifications cover topics such as network security, ethical hacking, risk management, and security policies and procedures.
    - **Database Management**: Certifications in database management train students in designing, implementing, and managing databases to store and retrieve data efficiently. These certifications cover database concepts, SQL programming, database administration, and data modeling.
    - **Cloud Computing**: Certifications in cloud computing focus on cloud platforms such as Amazon Web Services (AWS), Microsoft Azure, and Google Cloud Platform. These certifications demonstrate students' proficiency in deploying, managing, and securing cloud-based solutions.

- **Opportunities for Teachers**: The DSCA lab school offers exciting opportunities for teachers across all partnering districts. Firstly, teachers will have access to professional development opportunities provided by GMU, LRCC and the Shenandoah Valley CS Regional Partnership. These programs will equip educators with the latest knowledge and skills in data science and computing, allowing them to enhance their teaching practices and better prepare students for the future.

  Additionally, teachers will have the unique opportunity to serve as adjunct faculty in the lab school. This role enables them to directly engage with students in a hands-on learning environment, applying their expertise in data science and computing to real-world scenarios. By teaching in the lab school, educators can further deepen their understanding of these subjects while also inspiring and mentoring the next generation of innovators and problem solvers.

  Overall, these opportunities empower teachers to continually grow and develop professionally, fostering a collaborative and enriching educational ecosystem within the lab school. By leveraging the expertise of both GMU and the Shenandoah Valley CS Regional Partnership, teachers can stay at the forefront of advancements in data science and computing, ultimately benefiting their students and enhancing educational outcomes across partnering districts.
- **Opportunity for Educational Research**: The DSCA lab school presents an invaluable opportunity for educational research, offering a fertile ground for GMU faculty and graduate students to delve into various aspects of student learning and the effectiveness of professional development for teachers. By leveraging the unique environment of the lab school, researchers can explore a myriad of topics related to data-driven education and computing. This could include investigating the impact of innovative teaching methods on student outcomes, assessing the efficacy of technology integration in the classroom, and examining best practices for teaching data science and computing concepts across different grade levels.

  Furthermore, the lab school provides a dynamic setting for conducting longitudinal studies and action research, allowing researchers to observe trends and developments over time and implement interventions to improve teaching and learning practices. Faculty and graduate students can collaborate with teachers and administrators within the lab school to design and implement research studies, collect and analyze data, and disseminate findings through publications and presentations.

  Additionally, the lab school can serve as a platform for evaluating the effectiveness of professional development programs for teachers. Researchers can assess the impact of various training initiatives on teacher knowledge, pedagogical practices, and student outcomes. This research can inform the design and delivery of future professional development opportunities, ensuring that educators receive the support and resources they need to effectively integrate data and computing concepts into their teaching.

  Overall, the lab school in data and computing holds immense potential as a research site, providing valuable insights into student learning and teacher professional development in the context of emerging technologies and data-driven education. Through collaborative research efforts, GMU faculty and graduate students can contribute to the advancement of knowledge in these critical areas and ultimately enhance educational outcomes for students and teachers alike.

15. Describe how the college partnership laboratory school plans to adhere to the requirements of the health and safety laws and regulations of the federal and state governments. Address how the proposed college partnership laboratory school will meet the following requirements including the process to notify parents of health and safety situations
    - Fire & Safety Regulations
    - Severe Weather/Natural Disaster
    - Student Missing/Hiding/Runaway/Abduction
    - Terrorist/Hostage Situation
    - Possession of Weapons
    - Bomb Threats/Explosions
    - Food Inspections
    - Student Medical Issues/Medical Emergencies

See Frederick County Public Schools Handbook (**Appendix D**). The DSCA Lab School will comply with Frederick County Public Schools policy. Emergency Procedures including School Emergency Guide and School Crisis, Emergency Management and Medical Emergency Response Plan can be found in **Appendix E.**

VI. ELEMENT 6 – Financial and Operations Information

The following components must be addressed:

1. A description of the college partnership laboratory school's financial plan and policies, including financial controls and audit requirements for the school in accordance with generally accepted accounting principles

   The DSCA Lab School team will use the fiscal agent's (GMU) fiscal policies, to include financial controls and audit requirements. These policies already align to local, state, and federal standards. The governing board for the DSCA Lab School may choose to adopt certain fiscal policies and procedures, but these policies will serve as a baseline, and only adopted fiscal policies and regulations will override a fiscal agent policy.

2. Revenue projections for the college partnership laboratory school for Years One (1) through Five (5). Include detailed information including estimated amounts as well as any assumptions and/or formulas used to calculate the figures for the following categories of potential revenue:
   - Start-up grants
   - Operational per-pupil funds from the College Partnership Laboratory Schools Fund
   - State ADM funds – Include the formula used for calculating allotments.
   - Local Per Pupil Funds – Include the formula used for calculating allotments.
   - Federal Funds
   - Operational Grants
   - Foundations*
   - Private Funds*
   - Other Funds *
   - In-Kind/Non-Monetary Goods or Services*

   *If you are depending on these sources of funding to balance your operating budget, provide documentation, such as signed statements from donors, foundations, etc., on the Availability of these funds.

An illustrative itemized DSCA Lab school operating costs includes:

$ in 000's	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Lab School Operating Costs							
Personnel	40	526	527	528	528	529	2,678
Non-personnel Expenses	16	173	172	172	172	172	877
Staff development	-	31	31	31	31	31	155
Equip/Tech/Furniture	738	130	130	129	129	128	1,384
Admin Fee	206	190	190	190	190	190	1,156
Total Lab School Operating Costs	**1,000**	**1,050**	**1,050**	**1,050**	**1,050**	**1,050**	**6,250**

Note that for years 1 – 5, budget has been capped for DSCA lab school to have an annual enrollment of 150 students with a cost per pupil of $7000.

Annual Enrollment (# of pupils)		150	150	150	150	150	150
Cost per pupil ($)		$7,000	$7,000	$7,000	$7,000	$7,000	$8,333

Currently GMU has a Lab School Planning grant awarded for $199,980 and is requesting a startup for $1M. All the details are available in the year by year hyperlinked at budget and budget justification.

We hope to actively apply to secure outside funding in Years 2 – 5 which are itemized below in the table ($ in 000's)

Outside Funding							
Local share			50	75	150	200	475
Grant funding			-	250	500	1,000	1,750
Congressional earmark						500	500
Philanthropic funding			-	25	50	100	175
Higher education institution support				25	50	100	175
Business & industry partner contributions				25	50	100	175
Fundraising and development				25	50	100	175
Subtotal Other Funding	-	-	**50**	**425**	**850**	**2,100**	**3,425**

3. Budget expenditure projections for the college partnership laboratory school for Years One (1) through Five (5). Include detailed information including estimated amounts as well as any assumptions and/or formulas used to calculate the figures for the following categories of potential expenditures or include other categories as needed:
    - Total Personnel (for total number of staff)
    - Employee Benefits Total
    - Staff Development Total
    - Materials & Supplies
    - Office Supplies
    - Instructional Supplies
    - Classroom, Computer and Other Equipment
    - Facilities (Insurance, Utilities, Phone/Internet, Rent, Construction, Maintenance and Repair, Technology Maintenance, Transportation, Fuel, Marketing)
    - Food/Cafeteria

    A Sample Budget Expenditure Worksheet is included at the end of this document. Complete a Budget Expenditure Worksheet for each year. Include additional information that showcases all assumptions for your budgetary calculations. For example, the Year 1 may include 10 teachers, but the plan is to add 2 teachers each year, and the increase in Expenditure is seen in the budget. Explain below, in detail, the budget calculations for years budget for Years Two (2) through Five (5).

All the details are itemized and provided year by year hyperlinked at budget and budget justification. This includes total operating costs for the lab school for a total of $6,249,565 which is itemized below including the startup cost of $1M in Year 0.

Yr 0	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5
$999,999	$1,049,976	$1,049,976	$1,049,891	$1,049,732	$1,049,991

4. Include substantiation of anticipated fundraising contributions, if applicable.

As described in Question 2 in Element I on sustainability, the DSCA lab school planning team will be actively applying for a variety of statewide and federal funding opportunities. PI Seshaiyer has served as a former Program Director at the National Science Foundation and has obtained over $18M in funding over the last two decades. Also, with Co-PI Crawford, he has been able to secure close to a $1M in funding for supporting a variety of teacher programs. Please refer to our fundraising strategies to help sustain the DSCA lab school.

5. Provide a description of the insurance coverage that the school will obtain. Types of insurance include general liability, health, and property.

As employees of GMU, health insurance will be provided for DSCA employees through Frederick County Public Schools, as delegated by George Mason University, fiscal agent. The costs for this and other employee benefits are factored into the budgets included. In addition, the applicant will secure estimates for general liability, catastrophic accident liability, student accident liability, and educators' legal liability at specified levels. Also, for the in-person activities at GMU-SMSC, appropriate paperwork will be completed working with the office of risk management at GMU.

6. Provide justification for each type of insurance coverage sought and evidence that the applicant has consulted with the affiliated public or private institution of higher education to ensure that the level of coverage is satisfactory.

Safety is a top priority at George Mason University. Safety, Emergency, & Enterprise Risk Management (SEERM) and the Department of Police and Public Safety are committed to creating an environment in which everyone in our community can thrive. Frederick County Public Schools will work closely with GMU to ascertain that the level of coverage meets all needed requirements for the DSCA lab schools.

- We will abide by the Mason's Minors on Campus policy that contains links to other elements of Mason's minors policy can be found here: https://universitypolicy.gmu.edu/policies/minors-on-campus/
- All members of the DSCA lab school will be made familiar with GMU's and Frederick County Public School's recommended procedures on how to prepare for and respond to emergencies that may occur on campus.

7. Does the applicant have access to an existing facility suitable for a school with relevant local safety and health standards, such as fire, building, and sanitation available to students?

Check one of the following: **Yes** ☑ **No** ☐

If the answer is yes to the question above, provide the following information each location:

Full address: Dowell J Howard Center (website)

Dowell J. Howard Center
156 Dowell J. Circle
Winchester, VA 22602
Phone: 540-722-2134
Fax: 540-662-9112
Ben Thompson

Describe the facility in which the school will be located. Include information on how the site is appropriate to the mission and instructional program for the college partnership laboratory school.

The Dowell J. Howard Center is a facility within the Frederick County Public Schools system and it serves as an educational center offering specialized programs and services. The center plays a vital role in promoting inclusion, equity, and access to quality education for all students within the Frederick County Public Schools system.

Has the school obtained a valid Certificate of Occupancy for Education?
Yes. DJ Howard is a fully-operational center in Frederick County Public Schools.

Description of the Facility:
Total square feet: The square footage of the DJHC main building is 69,073 sf.

- The house is 1,200 sf and the tower is 144 sf.
- Number of Classrooms: 19
- Number of Restrooms: 15

Other Rooms:

- Cafeteria- 1
- Auditorium: 0
- Gymnasium: Exercise/Weight Room – 1
- Music Room: 0
- Art Room: 1
- Laboratory: 10

Ownership: **Fee Simple**
Frederick County Public Schools owns the DJ Howard Center

Describe the method of finding a facility if one is not readily available currently including information about the spatial needs of the school to best suit your adopted educational program and instructional methodologies.

The Principal of Dowell J Howard is already in communication with PIs and is excited to be hosting this DSCA lab school.

If the college partnership laboratory school is going to be a partnership with an existing local school district, provide a describe the facility space including total square footage, number of classrooms, restrooms and Other Rooms that will be dedicated to the college partnership laboratory school.

DSCA Laboratory School Space in Dowell J Howard Center:

- One to Two interior Classrooms
- Restroom (interior)
- Space in Student Lounge/Cafeteria
- Access to gymnasium
- Data Hub (CTE Lab-currently Carpentry)
    - Two offices and a restroom within the lab
- 2 Modulars w/ restroom

Provide a comprehensive facilities plan, including any backup or contingency plans. Facilities information must include:

(1) the provision of suitable instructional space.
(2) provisions for library services.
(3) provisions for the safe administration and storage of student records and medications.
(4) information regarding compliance with building and fire codes and compliance with the federal Americans with Disabilities Act.
(5) general information on emergency evacuation plans.
(6) information regarding site location and preparation.
(7) the structure of operation and maintenance services; and
(8) financial arrangements for facilities, including any lease arrangements with school divisions or other entities and whether debt will be incurred.

Is the applicant a public, nonsectarian, nonreligious school in the Commonwealth established by a public institution of higher education, public higher education center, institute, or authority; or an eligible institution, as defined in § 23.1-628 related to the Tuition Assistance Grant Program?

Describe a sound facilities plan, including backup or contingency plans. Facilities information includes (1) the provision of suitable instructional space; (2) provisions for library services; (3) provisions for the safe administration and storage of student records and medications; (4) information regarding compliance with building and fire codes and compliance with the federal Americans with Disabilities Act; (5) general information on emergency evacuation plans; (6) information regarding site location and preparation; (7) the structure of operation and maintenance services; and (8) financial arrangements for facilities, including any lease arrangements with school divisions or other entities and whether debt will be incurred.

- **Library Services** The building currently does not have a dedicated library space. The laboratory school plans to explore potential library services through digital library subscription services through the fiscal agent, partnership with the GMU and Laurel Ridge libraries, and/or partnership with the nearest branch of the Handley and Bowman Library System, which services a number of the participating counties.
- **Storage and Administration** of Records/Medication The Data Science and Computing Applications Laboratory School plans to follow the Frederick County Public School's and all state policies in regarding storage and administration of records and medication. As the school opens and develops, the governance structure of the school may choose to adopt its own policies in this area in accordance with state and federal law if needed.
- **Fire Codes and ADA Compliance** As a division-owned building, the Frederick County Public Schools building was built according to ADA policies, and includes ramp access, automatic doors where needed and other building features to ensure compliance with ADA policy. The building was also developed to meet fire code regulations. The DSCA Laboratory School will follow all policies adopted by Frederick County Public Schools to ensure that appropriate fire prevention and safety strategies and practices are leveraged, and that any adjustments to the building noted as necessary through annual fire safety inspections are adopted. Emergency Evacuation Plans Emergency evacuation plans currently exist and are posted in each room in the DJ Howard Center, and will be updated as needed in partnership with the safety and security department for Frederick County Public Schools to ensure alignment with current state and federal guidelines for evacuation plans for high school students and staff.
- **Site Location and Preparation** Frederick County Public Schools is providing the CTE lab, the offices, restroom, up to two interior classrooms and cement pad and cinder block foundation for two modulars outside the CTE lab to host the DSCA Laboratory School. The space has classrooms already fully ready to host students, with tables and chairs, etc. The planning team is working with Buildings and Grounds to identify building adjustment needs and organizing that work into phases, to renovate the CTE lab into a state-of-art Data Hub. During Phase 1 in the start-up Year 0, the HVAC will be replaced and the carpentry lab workstation removed and a restroom and two offices cosmetically updated. Lab stations, flexible furniture, and equipment such as computers, presentation stations, 3D printers, View Sonics, interactive whiteboards and industry digital visualization and analysis software will be installed.

8. A description of whether transportation services will be provided. If transportation is to be provided, indicate whether the school will contract for transportation with the local education agency or another entity. Indicate whether transportation will be provided to all students attending the school.

   The DSCA Lab School will contract for transportation with the local education agency, Frederick County Public Schools. Transportation will be provided to all students attending the school from their base schools including students from independent schools based on residency within Frederick County. Transportation for other students will be paid by the respective school division partner.

9. A description of transportation services for students with disabilities. (Section 22.1-221 A of the *Code of Virginia* states that "[e]ach disabled child enrolled in and attending a special education program provided by the school division pursuant to any of the provisions of § 22.1-216 or § 22.1-218 shall be entitled to transportation to and from such school or class at no cost if such transportation is necessary to enable such child to obtain the benefit of educational programs and opportunities.")

   As needed, appropriate transportation service accommodations will be provided by the partnering division, Frederick County Public Schools, in accordance with each student's individual education plan (IEP) as determined by the IEP team.

10. A description of food service operations and all other significant operational or ancillary services to be provided, including any special provisions and responsible individuals administering free and reduced breakfast and/or lunch.

    Dowell J. Howard provides free breakfast and lunch to all students, including lab school students. We have one food service employee that provides meals to all of our students.

VII. ELEMENT 7 – Lab School Closure Placement Plan

The following information must be provided:

1. Identification of a name or position of a member of the school's leadership who will serve as a single point of contact for all activities that may need to take place in order for the school to close, including but not limited to the transfer of students to another school, the management of student records, and the settlement of financial obligations. Include contact's name, title, email address, and phone number.

   The Data Science and Computing Laboratory School Director, to be hired following funding, will serve as the single point of contact for all activities that may need to take place in order for the school to close.

   Until we hire that person in year, PI Seshaiyer will serve in this role.

   Dr. Padmanabhan Seshaiyer
   Professor and Director
   George Mason University
   Email: pseshaiy@gmu.edu
   Phone: 8062398738

2. A draft notification process for parents/guardians of students attending the school and teachers and administrators of the termination or revocation of the contract.

   Should the contract for the DSCA university partnership lab school be terminated or revoked, the school will send notice to families within 48 hours of the school's notification. At the same time, information will be shared with families around the options for alternative public schools' students can attend, as detailed below. The information will be disseminated through email and physical letters sent home with students or mailed, should the notification come during the summer.

3. A draft notification process to parents or guardians of students attending the college partnership laboratory school of alternative public school placements within a set time period from the date of termination or revocation of the contract.

   If notified that the contract for the university partnership lab school was revoked or terminated, students and their families would receive notification of the option to take classes at their geographically zoned high school. They would also receive notification of different specialty programs they might consider transferring to, should the family continue to desire a specialty experience. Some examples in the area include:

   - Mountain Vista Governor's School
   - The Handley High School Innovation Center
   - Other programs at DJ Howard Center
   - Laurel Ridge Data Science and CS certificate

   In addition, the DSCA governing board for the school would convene a special session to consider whether the school could continue as a joint operated school. If this was deemed a realistic option, the converted laboratory partnership school would also be listed as an option for attendance.

4. A detailed plan for ensuring that student records are provided to the parent or guardian, or another school identified by the parent or guardian within a set time period. If the student transfers to another school division, provisions for the transfer of the student's record to the school division to which the student transfers upon the request of that school division. (*See* § 22.1-289 of the *Code of Virginia*).

   Should the DSCA Laboratory School close, any and all student records will be provided to the parent or guardian. These will be exported from the student information system (Infinite Campus) and sent electronically, or if requested, physically, to student parents and guardians. Additionally, once notification is provided on where students are transferring, the transcripts will be sent to those schools. In most cases, this will be the geographically zoned high school in the division in which the student is enrolled, so the contacts will already be in place to help create a smooth process for students and their families.

5. A detailed placement plan for school employees that details the level of assistance to be provided within a set period of time from the termination or revocation of the contract.

   If the contract is revoked, the following protocols will guide the placement of laboratory school teachers, and employees: Lab School Teachers and Staff would have the option to transfer to another open position in any of the Frederick County base schools, programs, or central office of a similar position level. The FCPS HR tram would employ existing protocols within Frederick County to advise all DSCA Lab School employees of their rights and options for continued employment.

6. A close-out process plan related to the college partnership laboratory school financial obligations and audits, the termination of contracts and leases, and the sale and disposition of assets within a set period of time from the termination or revocation of the contract. The plan shall include the disposition of the schools' records and financial accounts upon closure.

   If funded, the DSCA Laboratory School governing Board will create and publish a close-out plan that is reviewed by the GMU legal counsel and HR departments and will be available to the public.

VIII. ELEMENT 8 – Other Assurances and Requirements

The following information should be provided:

1. A detailed description of the college partnership laboratory school's policies and procedures for compliance with the federal *Family Educational Rights and Privacy Act* and records retention schedules consistent with guidance issued by the Library of Virginia.

   The DSCA Lab School's governing board, once convened, will approve policies in compliance with the federal Family Educational Rights and Privacy Act and records retention schedules consistent with guidance issued by the Library of Virginia.

2. Evidence that the proposed college partnership laboratory school programs, services, and activities will operate in accordance with all applicable federal and state laws and regulations, including the Virginia Freedom of Information Act.

   The DSCA Lab School's governing board will ensure that the laboratory school programs, services, and activities will operate in accordance with all applicable federal and state laws and regulations, including the Virginia Freedom of Information Act.

3. A listing of all waivers to state regulations needed for the college partnership laboratory school at the time of its opening. This does not preclude a college partnership laboratory school from requesting additional waivers once the school is operational. (*See* §8VAC20-131 of the *Code of Virginia*.)

   No waivers are being requested by the DSCA Lab School Team.

5. A detailed description of any collaborative partnerships that may be made with public school divisions to enhance opportunities for all Virginia students, from preschool to postsecondary. An educational program provided to students enrolled in a public school division pursuant to a collaborative partnership between the college partnership laboratory school and the public school division shall be considered to be the educational program of the public school division for purposes of the SOA. (*See* § 22.1-349.3 G of the *Code of Virginia*.)

   Building on the strength of the Shenandoah Valley Computer Science Regional Partnership, the DSCA Lab School will continue to provide opportunities for learners in the region. In addition to the lab school serving Frederick County students directly, a number of opportunities exist for collaborative partnerships with neighboring public school divisions.

   Currently, the Lab school proposal includes the following opportunities for 9th and 10th graders and their parents and teachers to build interest in Data Science and Computing in each of the seven Valley school divisions:

- Seminars on Careers in Data Science, Computing and AI held at Laurel Ridge Community College
- Super Data Saturdays held at the Smithsonian-Mason Conservation Center campus
- Student-Led Research Projects: Innovations in Data Science and AI & Computer Science through GMU COS 120 college class (10th Graders)
- A 2-day Summer Institute for Data Science high school teachers

Additional opportunities will be designed and phased in over the next four years by the Shenandoah Valley Rural Regional Partnership working with the DSCA Lab School governing board.

6. A detailed description of all agreements that the applicant may need in the contract with the Board related to the release of the college partnership laboratory school from state regulations, consistent with the requirements in § 22.1-349.3 B of the *Code of Virginia*, including the approval of an Individual School Accreditation Plan. Section 22.1-349.4 of the *Code of Virginia* states that "[i]f the college partnership laboratory school application proposes a program to increase the educational opportunities for at-risk students, the Board of Education may approve an Individual School Accreditation Plan for the evaluation of the performance of the school."

   Not applicable at this time.

7. A detailed description of how the applicant and members of the governing board will disclose any conflicts of interest, which would include a personal interest in any transactions involving the college partnership laboratory school, including information regarding the frequency with which such disclosures will be made. (*See* § 2.2-3114 of the *Code of Virginia*.)

   All members associated with the DSCA Lab School will adhere to the GMU process and procedures (see **Appendix G**) that will require them to discloes any conflicts of interest.

8. Conflict of interest disclosure(s) by the applicant and/or members of the governing board in the proposed school. This includes any relationships that parties may have with vendors performing services at the school.

   Not applicable at this time.

Part C: Assurances

Assurances in the *Code of Virginia*: The assurances in the *Code of Virginia* represent the policies and procedures that must be developed and addressed in the application by the college partnership laboratory school to carry out the provisions of the law. By signing and submitting this application for a college partnership laboratory school, the applicant expressly assures the Board of the following:

1. No tuition will be charged to students attending the college partnership laboratory school, except as described in subsection E of § 22.1-349.3 of the *Code of Virginia*.

2. The school will be nonreligious in its admission policies, employment practices, instruction, and all other operations.

3. The proposed college partnership laboratory school programs, services, and activities will operate in accordance with all applicable federal and state laws and regulations (including the federal *Americans with Disabilities Act*, the federal *Individuals with Disabilities Education Improvement Act*, Section 504 of the federal *Rehabilitation Act of 1973*, and the *Virginia Freedom of Information Act*) and constitutional provisions prohibiting discrimination on the basis of disability, race, creed, color, gender, national origin, religion, ancestry, or need for special education services.

4. The applicant will take all actions necessary to enter into a contract with the Board no later than nine (9) months prior to the opening date of the college partnership laboratory school.

5. The school leadership of the college partnership laboratory school will be retained on contract no later than six (6) months prior to the opening date of the school.

6. An assurance that the applicant will meet the condition in § 22.1-349.9 of the *Code of Virginia*, which state that "teachers who work in a college partnership laboratory school shall hold a license issued by the Board or, in the case of an instructor in the Board-approved teacher education program of the institution of higher education, be eligible to hold a Virginia teaching license. Teachers working in a college partnership laboratory school shall be subject to the requirements of §§ 22.1-296.1, 22.1-296.2, and 22.1-296.4 applicable to teachers employed by a local school board."

7. All initial requests for waivers from the Board will be made no later than six (6) months prior to the opening date of the school. (This does not preclude a college partnership laboratory school from working with the local school board to request additional waivers once the school is operational.)

8. The applicant must assure knowledge of the *Virginia State and Local Government Conflict of Interest Act* (§ 2.2-3100 et seq. of the *Code of Virginia*) and the *Virginia Public Procurement Act* (§ 2.2-4300 et seq. of the *Code of Virginia*).

Assurances approved by the Virginia Board of Education: By signing and submitting this application for a college partnership laboratory school, the applicant expressly assures the Board of the following:

1. If this application is approved, the applicant will take all actions necessary to enter into a contract with the Board not later than nine (9) months prior to the opening date of the college partnership laboratory school.

2. If the application is approved, the leadership of the college partnership laboratory school will be retained on contract no later than six (6) months prior to the opening date of the school.

3. All initial requests for waivers from the Board will be made by the local school board, on behalf of the applicant, no later than six (6) months prior to the opening date of the school. (This does not preclude a college partnership laboratory school from working with the Board to request additional waivers once the school is operational.)

4. The applicant assures knowledge of the *Virginia State and Local Government Conflict of Interest Act* (§ 2.2-3100 et seq. of the *Code of Virginia*) and the *Virginia Public Procurement Act* (§ 2.2-4300 et seq. of the *Code of Virginia*).

Pursuant to the requirements, I hereby certify that to the best of my knowledge, the information in this application is correct; the applicant has addressed all application elements that pertain to the proposed college partnership laboratory school; and that the applicant understands and will comply with the assurances listed above.

Name of Authorized Official: Maggie Ewell

Title: Director, Pre-Award

Signature of Authorized Offic DocuSigned by: Margaret B. Ewell 9D1F585A4DEA498...

Date: 4/2/2024

APPENDIX SECTION

Student Policy Handbook

The student policy handbook for the DSCA full lab school at the Dowell J Howard center will align to the FCPS Calendar Handbook that is distributed at the beginning of every school year. It also includes the following (selected) Policies, Regulations & Procedures:

- Absences from School
- Bring Your Own Device (BYOD)
- Bullying/Intimidation/Harassment
- Cheating and Plagiarism
- Child Abuse and Neglect
- Corporal Punishment
- Distributing Materials in Schools
- Dress Codes
- Drugs, Alcohol, Tobacco
- Environmental Concerns
- Equity
- Fees for Supplies and Activities
- Field Trips
- Firearms and Weapons
- Holidays
- Instructional Materials
- Internet Use
- Military Recruiter Access to Student Information
- Public Information Act
- Religious Expression
- Searches on and off School Property
- Sexual Harassment
- Social Media
- Student Records and Information
- Teacher Qualifications
- Title IX: Gender Discrimination
- Use of Animals in Instruction
- Using Athletic Fields and Schools after Hours
- Visitors to Schools
- Withdrawal process

BUDGET SUMMARY
Budget Expenditure Worksheet – Complete for Years 0 – 5

Details of the breakdown by year can be found at DSCA Budget and Budget Justification.

Personnel - Salaries	Number	Rate	Run Rate Annual Cost
Director	5	$ 80,000.00	$400,000
PI	5	$ 14,392.20	$71,961
PI-GMU Fringes	1	$ 5,254.00	$5,254
Co-PI	5	$ 14,400.00	$72,000
Administrative assistant (Part-time)	6	$ 40,000.00	$240,000
Additional Teachers for 8 sections	40	$ 6,000.00	$240,000
High School Teacher Instructors - 3 for DJH School	15	$ 80,000.00	$1,200,000
Lab Technician/IT Teacher/System Admin	5	$ 89,750.00	$448,750
Total Personnel Costs			**$2,677,965**

Non-Personnel	Number	Rate	Run Rate Annual Cost
Student snacks	6	$ 5,000.00	$30,000
Office supplies	6	$ 5,000.00	$30,000
Lab School Operation Devices (Computers for Logisti	3	$ 2,000.00	$6,000
College tuition costs (per credit hours)	2,000	$ 175.00	$350,000
Workforce Data Analytics Certificate	200	$ 200.00	$40,000
Transportation	5	$ 70,000.00	$350,000
GMU - SMSC Super Data Saturdays	5	$ 14,350.00	$71,750
Total Non-Personnel Costs			**$877,750**

Staff Development	Number	Rate	Run Rate Annual Cost
Teacher support/training (High School DSCA Summit)	5	$ 20,000.00	$100,000
Travel	30	$ 1,750.00	$52,500
Total Non-Personnel Costs			**$152,500**

Equip/Tech/Furniture	Number	Rate	Run Rate Annual Cost
Data Hub Lab Classroom Technology/Equipment	1	$ 397,500.00	$397,500
Data Hub Lab Facilities/Renovation (HVAC)	1	$ 400,000.00	$400,000
Data Vizualization Software Licences	1	$ 104,150.00	$104,150
Classroom Furniture and Presentation Stations	1	$ 66,000.00	$66,000
Modulars & Lab	12	$ 20,000.00	$240,000
Bathroom/Office Renovation	1	$ 20,000.00	$20,000
SMSC Classroom Rental	5	$ 15,000.00	$75,000
Custodial	1	$ 80,500.00	$80,500
Total equipment/technology/furniture			**$1,383,150**

Administrative Fees	Number	Rate	Run Rate Annual Cost
** List all costs (examples below)*			
University administrative fees			$1,158,200
Total admin fees - GMU Lab School Indirect Cost			**$1,158,200**
Total Operating Costs			**$6,249,565**

Annual Expenditures

The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data Science, Computing and Applications (DCSA)

An illustrative itemized budget spreadsheet showing expected expenses in high level categories for the DSCA Lab School is shown below for a total of $6,249,565 (approximately $6.25) over six years that includes $1 M of start-up funds in Year 0.

$ in 000's	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Lab School Operating Costs							
Personnel	40	526	527	528	528	529	2,678
Non-personnel Expenses	16	173	172	172	172	172	877
Staff development	-	31	31	31	31	31	155
Equip/Tech/Furniture	738	130	130	129	129	128	1,384
Admin Fee	206	190	190	190	190	190	1,156
Total Lab School Operating Costs	**1,000**	**1,050**	**1,050**	**1,050**	**1,050**	**1,050**	**6,250**

Note that in Years 1 – 5, the annual amounts are based on an annual enrollment of 150 students with a cost per pupil of $7000 which computes to $1,050,000 per year. Next, we provide the breakdown of the annual expenditures by year along with a budget justification.

We do plan to apply for statewide, federal, congressional earmark, philanthropic funding and also pursue higher education, business and industry external support along with fundraising from community as described in the application.

Outside Funding							
Local share			50	75	150	200	475
Grant funding			-	250	500	1,000	1,750
Congressional earmark						500	500
Philanthropic funding			-	25	50	100	175
Higher education institution support				25	50	100	175
Business & industry partner contributions				25	50	100	175
Fundraising and development				25	50	100	175
Subtotal Other Funding	-	-	50	425	850	2,100	3,425
Total Funding	1,200	450	500	875	1,300	2,100	6,425

Annual Expenditure Sheet - Year 0
Budget Expenditure Worksheet

Personnel - Salaries	Number	Rate	Run Rate Annual Cost		Yr 0
Administrative assistant (Part-time)	1	$ 40,000.00	$40,000		$40,000
Total Personnel Costs			**$40,000**		**$40,000**

Non-Personnel	Number	Rate	Run Rate Annual Cost		Yr 0
Student snacks	1	$ 5,000.00	$5,000		$5,000
Office supplies	1	$ 5,000.00	$5,000		$5,000
Lab School Operation Devices (Computers for Logisti	3	$ 2,000.00	$6,000		$6,000
Total Non-Personnel Costs			**$16,000**		**$16,000**

Staff Development	Number	Rate	Run Rate Annual Cost		Yr 0
Total Non-Personnel Costs			**$0**		**$0**

Equip/Tech/Furniture	Number	Rate	Run Rate Annual Cost		Yr 0
Data Hub Lab Classroom Technology/Equipment	1	$ 200,000.00	$200,000		$200,000
Data Hub Lab Facilities/Renovation (HVAC)	1	$ 400,000.00	$400,000		$400,000
Data Vizualization Software Licences	1	$ 3,650.00	$3,650		$3,650
Classroom Furniture and Presentation Stations	1	$ 66,000.00	$66,000		$66,000
Modulars & Lab	2	$ 20,000.00	$40,000		$40,000
Bathroom/Office Renovation	1	$ 20,000.00	$20,000		$20,000
Custodial	1	$ 15,000.00	$8,000		$8,000
Total equipment/technology/furniture			**$737,650**		**$737,650**

Administrative Fees	Number	Rate	Run Rate Annual Cost		Yr 0
University administrative fees			$206,349		$206,349
Total admin fees - GMU Lab School Indirect Cost			**$206,349**		**$206,349**

Total Operating Costs			**$999,999**		**$999,999**

Annual Expenditure Sheet - Year 0
BUDGET JUSTIFICATION

PERSONNEL COSTS

Budget requests a total of $40,000 towards Personnel Costs.

- PI and Co-PI – Dr. Padmanabhan Seshaiyer from GMU and Co-PI Deb Crawford from Frederick County Public Schools will dedicate their efforts on all the proposed project activities for the startup Year 2024 and their efforts will be supported through the Lab school planning grant that has been already awarded.
- An Administrative Assistant will be hired for $40,000 through a part-time position to assist the PIs during the Startup year 2024.

NON- PERSONNEL COSTS

Budget requests a total of $16,000 for the startup year. This includes

- Snacks for in-person classes at SMSC, Parent, Student, Board, Community Activities ($5000)
- Office Supplies for the lab school ($5000)
- Three dedicated laptops for the PI, Co-PI and the Lab School Office ($6000).

STAFF DEVELOPMENT

In Year 0, we are not requesting any budget for Staff Development. However, we will be hosting the following through the Lab School Planning grant that has already been awarded.

- Teacher Professional Learning that will include Personalized Professional Learning for 7 Teachers to become content experts in Data and Computing to teach in Lab School years 1-5.
- Virginia High School Data Science Summit to train more teachers from the partner districts in the Shenandoah Valley to be able to integrate Data and Computing in their courses.
- Personalized dashboard for 7 Teachers and staff upskilling in DSCA based on pre-assessment data
- Travel to Conferences for the PI and Co-PI to disseminate our work as well as travel to VDOE and other Lab School sites to learn and share best practices.

EQUIPMENT/TECHNOLOGY/FURNITURE

Budget requests $737,650 during the startup year to set up the data hub and the infrastructure for the full lab school. The expenses include:

- A Data Hub innovations lab that will be modeled after those at GMU, LRCC and Shenandoah University ($20000)
- A Data Hub Lab facilities HVAC will play a critical role in creating and maintaining the controlled environment necessary for the reliable operation of sensitive electronic

equipment as well as Temperature Control, Humidity Regulation, Air Filtration, Air Circulation and Environmental Monitoring ($400000)

- In year 0, some of the basic data science and computing software to be used will be purchased and installed ($3650)
- Classroom Furniture and Presentation Stations for Teachers and Students in Data Hub will be purchased ($66,000)
- Two rental modules and labs will be purchased for $20000 each ($40,000)
- Budget requests renovation of bathrooms and office ($20,000)
- Budget requests support for custodial services ($8,000)

FACILITIES AND ADMINISTRATIVE COSTS (F&A)

George Mason University has a predetermined F&A rate of 26% , Modified Total Direct Costs (MTDC), approved by the Office of Naval Research for off campus remote other sponsored activities. Participant support costs and SMCC classroom rentals have been excluded from the MTDC base. A total of $206,349 is requested from VDOE in the Year 0 to cover costs associated with the operation of the lab school that include the use of University resources such as legal counsel, human resources and payroll, technology support services, server space and equipment, facilities, utilities, risk management and insurance, sponsored programs administration, etc.

Annual Expenditure Sheet - Year 1
Budget Expenditure Worksheet

Personnel - Salaries	Number	Rate	Run Rate Annual Cost		Yr 1
Director	1	$ 80,000.00	$80,000		$80,000
PI	1	$13,023	$13,023		$13,023
PI-GMU Fringes	1	$ 951.00	$951		$951
Co-PI	1	$ 14,400.00	$14,400		$14,400
Administrative assistant (Part-time)	1	$ 40,000.00	$40,000		$40,000
Additional Teachers for 8 sections	8	$ 6,000.00	$48,000		$48,000
High School Teacher Instructors - 3 for DJH School	3	$ 80,000.00	$240,000		$240,000
Lab Technician/IT Teacher/System Admin	1	$ 89,750.00	$89,750		$89,750
Total Personnel Costs			**$526,124**		**$526,124**

Non-Personnel	Number	Rate	Run Rate Annual Cost		Yr 1
Student snacks	1	$ 5,000.00	$5,000		$5,000
Office supplies	1	$ 5,000.00	$5,000		$5,000
College tuition costs (per credit hours)	400	$ 175.00	$70,000		$70,000
Workforce Data Analytics Certificate	40	$ 200.00	$8,000		$8,000
Transportation	1	$ 70,000.00	$70,000		$70,000
GMU - SMSC Super Data Saturdays	1	$ 14,500.00	$14,500		$14,500
Total Non-Personnel Costs			**$172,500**		**$172,500**

Staff Development	Number	Rate	Run Rate Annual Cost		Yr 1
Teacher support/training (High School DSCA Summit)	1	$ 20,000.00	$20,000		$20,000
Travel	6	$ 1,750.00	$10,500		$10,500
Total Non-Personnel Costs			**$30,500**		**$30,500**

Equip/Tech/Furniture	Number	Rate	Run Rate Annual Cost		Yr 1
Data Hub Lab Classroom Technology/Equipment			$40,000		$40,000
Data Vizualization Software Licences	1	$ 20,500.00	$20,500		$20,500
Modulars & Lab	2	$ 20,000.00	$40,000		$40,000
SMSC Classroom Rental	1	$ 15,000.00	$15,000		$15,000
Custodial	1	$ 15,000.00	$15,000		$15,000
Total equipment/technology/furniture			**$130,500**		**$130,500**

Administrative Fees	Number	Rate	Run Rate Annual Cost		Yr 1
University administrative fees			$190,352		$190,352
Total admin fees - GMU Lab School Indirect Cost			**$190,352**		**$190,352**

Total Operating Costs			**$1,049,976**		**$1,049,976**

Annual Expenditure Sheet - Year 1
BUDGET JUSTIFICATION

PERSONNEL COSTS

Budget requests a total of $526,124 in Year 1 towards Personnel Costs.

- PI Dr. Padmanabhan Seshaiyer from GMU will dedicate equivalent of 0.60 summer months to help coordinate the efforts of the Full Lab School operations. Fringes (FICA Only for summer, adjunct, non-student wages is 7.3%) in the amount of $951 is included for a total amount requested as $13,023 in Year 1.
- Co-PI Deb Crawford from Frederick County Public Schools will work closely with the PI at GMU and also help coordinate the efforts of the Full Lab School operations. Budget requested is $14,400 in Year 1 for her efforts.
- A new Lab School Director will be identified and will start to serve in their capacity. A budget of $80,000 is requested in Year 1.
- Administrative Assistant will continue to be supported for $40,000 through a part-time position to assist the PIs during Year 1.
- Teachers for eight sections (four social studies and four English) will be identified and compensated for their services in the amount of $6000 per section ($48,000) in Year 1.
- Three dedicated DSCA Lab School will be identified in Year 1 and selected as teaching faculty for the school. Budget requests $80,000 per teacher for a total of $240,000.
- A Lab Technician and Systems Administrator who is also licensed to teach dual enrollment will be identified and selected in Year 1. Budget requests $89,750 in Year 1.

NON- PERSONNEL COSTS

Budget requests a total of $172,500 for Year 1 that includes:

- Snacks for in-person classes at SMSC, Parent, Student, Board, Community Activities ($5000)
- Office Supplies for the lab school ($5000)
- College Tuition Costs through GMU for 2 credits of COS120 for 50 tenth graders, 3 credits of a SMSC Science elective for 50 juniors and seniors and 3 credits of COS400 for 50 juniors and seniors. Budget requests support for 8 credits per student for 50 students at $175 per credit ($70,000)
- Budget requests for 20 juniors and 20 seniors support to earn workforce data analytics certification at $200 per student ($8,000)
- Budget request transportation of students selected from different high schools to travel to the DSCA lab school located Dowell J Howard center with Frederick transportation ($70,000)
- Budget requests support for hosting DSCA Super Data Saturdays activity at GMU-SMSC campus ($14,500)

STAFF DEVELOPMENT

In Year 1, the principal request is to support the following in the amount of $30,500.

- Virginia High School Data Science Summit to train more teachers from the partner districts in the Shenandoah Valley to be able to teach high school data science or to continue to integrate Data and Computing in their courses ($20, 000)
- Travel to Conferences for the PI and Co-PI to disseminate our work as well as continue travel to VDOE and other Lab School sites to learn and share best practices. ($10,500)

EQUIPMENT/TECHNOLOGY/FURNITURE

Budget requests $130,500 during the Year 1 to continue the set up the data hub classroom technology, equipment and infrastructure for the full lab school. The expenses include:

- A Data Hub innovations lab that will be continued to be modeled with new innovations ($40,000)
- In year 1, more foundational data science and computing software will be purchased and installed to be used for the lab school coursework ($20.500)
- Budget requests continuation of payments for two rental modules and labs purchased in Startup year for $20000 each ($40,000)
- Budget requests support for two rooms at GMU-SMSC facility to host in-person activities for lab school students ($15,000)
- Budget requests continued support for custodial services ($15,000)

FACILITIES AND ADMINISTRATIVE COSTS (F&A)

George Mason University has a predetermined F&A rate of 26% , Modified Total Direct Costs (MTDC), approved by the Office of Naval Research for off campus remote other sponsored activities. Participant support costs and SMCC classroom rentals have been excluded from the MTDC base. A total of $190,352 is requested from VDOE in the Year 0 to cover costs associated with the operation of the lab school that include the use of University resources such as legal counsel, human resources and payroll, technology support services, server space and equipment, facilities, utilities, risk management and insurance, sponsored programs administration, etc.

Annual Expenditure Sheet - Year 2
Budget Expenditure Worksheet

Personnel - Salaries	Number	Rate	Run Rate Annual Cost		Yr 2
Director	1	$ 80,000.00	$80,000		$80,000
PI	1	$13,023	$13,674		$13,674
PI-GMU Fringes	1	$ 998.00	$998		$998
Co-PI	1	$ 14,400.00	$14,400		$14,400
Administrative assistant (Part-time)	1	$ 40,000.00	$40,000		$40,000
Additional Teachers for 8 sections	8	$ 6,000.00	$48,000		$48,000
High School Teacher Instructors - 3 for DJH School	3	$ 80,000.00	$240,000		$240,000
Lab Technician/IT Teacher/System Admin	1	$ 89,750.00	$89,750		$89,750
Total Personnel Costs			**$526,822**		**$526,822**

Non-Personnel	Number	Rate	Run Rate Annual Cost		Yr 2
Student snacks	1	$ 5,000.00	$5,000		$5,000
Office supplies	1	$ 5,000.00	$5,000		$5,000
College tuition costs (per credit hours)	400	$ 175.00	$70,000		$70,000
Workforce Data Analytics Certificate	40	$ 200.00	$8,000		$8,000
Transportation	1	$ 70,000.00	$70,000		$70,000
GMU - SMSC Super Data Saturdays	1	$ 14,250.00	$14,250		$14,250
Total Non-Personnel Costs			**$172,250**		**$172,250**

Staff Development	Number	Rate	Run Rate Annual Cost		Yr 2
Teacher support/training (High School DSCA Summit)	1	$ 20,000.00	$20,000		$20,000
Travel	6	$ 1,750.00	$10,500		$10,500
Total Non-Personnel Costs			**$30,500**		**$30,500**

Equip/Tech/Furniture	Number	Rate	Run Rate Annual Cost		Yr 2
Data Hub Lab Classroom Technology/Equipment			$40,000		$40,000
Data Vizualization Software Licences	1	$ 20,000.00	$20,000		$20,000
Modulars & Lab	2	$ 20,000.00	$40,000		$40,000
SMSC Classroom Rental	1	$ 15,000.00	$15,000		$15,000
Custodial	1	$ 15,000.00	$15,000		$15,000
Total equipment/technology/furniture			**$130,000**		**$130,000**

Administrative Fees	Number	Rate	Run Rate Annual Cost		Yr 2
University administrative fees			$190,404		$190,404
Total admin fees - GMU Lab School Indirect Cost			**$190,404**		**$190,404**

Total Operating Costs			**$1,049,976**		**$1,049,976**

Annual Expenditure Sheet - Year 2
BUDGET JUSTIFICATION

PERSONNEL COSTS

Budget requests a total of $526,822 in Year 2 towards Personnel Costs.

- PI Dr. Padmanabhan Seshaiyer from GMU will dedicate equivalent of 0.60 summer months to continue to help coordinate the efforts of the Full Lab School operations. Fringes (FICA Only for summer, adjunct, non-student wages is 7.3%) in the amount of $998 is included for a total amount requested as $13,023 in Year 2. (Note: Mason provides annual merit increases to Faculty and Staff. An escalation factor of 5% has been included for all personnel each year.)
- Co-PI Deb Crawford from Frederick County Public Schools will work closely with the PI at GMU and also continue help coordinate the efforts of the Full Lab School operations. Budget requested is $14,400 in Year 1 for her efforts.
- Budget requests continued support of the Lab School Director to serve in their capacity. A budget of $80,000 is requested in Year 2.
- Administrative Assistant will continue to be supported for $40,000 through a part-time position to assist the PIs during Year 2.
- Teachers for eight sections (four social studies and four English) will continue their services in the amount of $6000 per section ($48,000) in Year 2.
- Three dedicated DSCA Lab School will continue their services in Year 2 as teaching faculty of the lab school. Budget requests $80,000 per teacher for a total of $240,000.
- A Lab Technician and Systems Administrator identified in Year 1 will continued to support the efforts of the lab school in Year 2. Budget requests $89,750.

NON- PERSONNEL COSTS

Budget requests a total of $172,500 for Year 2 that includes:

- Snacks for in-person classes at SMSC, Parent, Student, Board, Community Activities ($5000)
- Office Supplies for the lab school ($5000)
- College Tuition Costs through GMU for 2 credits of COS120 for 50 tenth graders, 3 credits of a SMSC Science elective for 50 juniors and seniors and 3 credits of COS400 for 50 juniors and seniors. Budget requests support for 8 credits per student for 50 students at $175 per credit ($70,000)
- Budget requests for 20 juniors and 20 seniors support to earn workforce data analytics certification at $200 per student ($8,000)
- Budget request transportation of students selected from different high schools to travel to the DSCA lab school located Dowell J Howard center with Frederick transportation ($70,000)
- Budget requests support for hosting DSCA Super Data Saturdays activity at GMU-SMSC campus ($14,500)

STAFF DEVELOPMENT

In Year 2, the principal request is to support the following in the amount of $30,500.

- Virginia High School Data Science Summit to train more teachers from the partner districts in the Shenandoah Valley to be able to teach high school data science or to continue to integrate Data and Computing in their courses ($20, 000)
- Travel to Conferences for the PI and Co-PI to disseminate our work as well as continue travel to VDOE and other Lab School sites to learn and share best practices ($10,500)

EQUIPMENT/TECHNOLOGY/FURNITURE

Budget requests $130,000 during the Year 2 to continue the set up the data hub classroom technology, equipment and infrastructure for the full lab school. The expenses include:

- A Data Hub innovations lab that will be continued to be modeled with new innovations ($40,000)
- In year 2, more foundational data science and computing software will be purchased and installed to be used for the lab school coursework ($20.000)
- Budget requests continuation of payments for two rental modules and labs purchased in Startup year for $20000 each ($40,000)
- Budget requests support for two rooms at GMU-SMSC facility to host in-person activities for lab school students ($15,000)
- Budget requests continued support for custodial services ($15,000)

FACILITIES AND ADMINISTRATIVE COSTS (F&A)

George Mason University has a predetermined F&A rate of 26% , Modified Total Direct Costs (MTDC), approved by the Office of Naval Research for off campus remote other sponsored activities. Participant support costs and SMCC classroom rentals have been excluded from the MTDC base. A total of $190,404 is requested from VDOE in the Year 0 to cover costs associated with the operation of the lab school that include the use of University resources such as legal counsel, human resources and payroll, technology support services, server space and equipment, facilities, utilities, risk management and insurance, sponsored programs administration, etc.

Annual Expenditure Sheet - Year 3
Budget Expenditure Worksheet

Personnel - Salaries	Number	Rate	Run Rate Annual Cost		Yr 3
Director	1	$ 80,000.00	$80,000		$80,000
PI	1	$14,358	$14,358		$14,358
PI-GMU Fringes	1	$ 1,048.00	$1,048		$1,048
Co-PI	1	$ 14,400.00	$14,400		$14,400
Administrative assistant (Part-time)	1	$ 40,000.00	$40,000		$40,000
Additional Teachers for 8 sections	8	$ 6,000.00	$48,000		$48,000
High School Teacher Instructors - 3 for DJH School	3	$ 80,000.00	$240,000		$240,000
Lab Technician/IT Teacher/System Admin	1	$ 89,750.00	$89,750		$89,750
Total Personnel Costs			**$527,556**		**$527,556**

Non-Personnel	Number	Rate	Run Rate Annual Cost		Yr 3
Student snacks	1	$ 5,000.00	$5,000		$5,000
Office supplies	1	$ 5,000.00	$5,000		$5,000
College tuition costs (per credit hours)	400	$ 175.00	$70,000		$70,000
Workforce Data Analytics Certificate	40	$ 200.00	$8,000		$8,000
Transportation	1	$ 70,000.00	$70,000		$70,000
GMU - SMSC Super Data Saturdays	1	$ 14,500.00	$14,500		$14,500
Total Non-Personnel Costs			**$172,500**		**$172,500**

Staff Development	Number	Rate	Run Rate Annual Cost		Yr 3
Teacher support/training (High School DSCA Summit)	1	$ 20,000.00	$20,000		$20,000
Travel	6	$ 1,750.00	$10,500		$10,500
Total Non-Personnel Costs			**$30,500**		**$30,500**

Equip/Tech/Furniture	Number	Rate	Run Rate Annual Cost		Yr 3
Data Hub Lab Classroom Technology/Equipment			$40,000		$40,000
Data Vizualization Software Licences	1	$ 20,000.00	$20,000		$20,000
Modulars & Lab	2	$ 20,000.00	$40,000		$40,000
SMSC Classroom Rental	1	$ 15,000.00	$15,000		$15,000
Custodial	1	$ 14,000.00	$14,000		$14,000
Total equipment/technology/furniture			**$129,000**		**$129,000**

Administrative Fees	Number	Rate	Run Rate Annual Cost		Yr 3
University administrative fees			$190,335		$190,335
Total admin fees - GMU Lab School Indirect Cost			**$190,335**		**$190,335**

Total Operating Costs			**$1,049,891**		**$1,049,891**

Annual Expenditure Sheet - Year 3
BUDGET JUSTIFICATION

PERSONNEL COSTS

Budget requests a total of $527,556 in Year 3 towards Personnel Costs.

- PI Dr. Padmanabhan Seshaiyer from GMU will dedicate equivalent of 0.60 summer months to help coordinate the efforts of the Full Lab School operations. Fringes (FICA Only for summer, adjunct, non-student wages is 7.3%) in the amount of $1,048 is included for a total amount requested as $14,358 in Year 3.
- Co-PI Deb Crawford from Frederick County Public Schools will work closely with the PI at GMU and also help coordinate the efforts of the Full Lab School operations. Budget requested is $14,400 in Year 3 for her efforts.
- Budget requests continued support of the Lab School Director to serve in their capacity. A budget of $80,000 is requested in Year 3.
- Administrative Assistant will continue to be supported for $40,000 through a part-time position to assist the PIs during Year 3.
- Teachers for eight sections (four social studies and four English) will continue their services in the amount of $6000 per section ($48,000) in Year 3.
- Three dedicated DSCA Lab School will continue their services in Year 3 as teaching faculty of the lab school. Budget requests $80,000 per teacher for a total of $240,000.
- A Lab Technician and Systems Administrator identified in Year 1 will continued to support the efforts of the lab school in Year 3. Budget requests $89,750.

NON- PERSONNEL COSTS

Budget requests a total of $172,500 for Year 3 that includes:

- Snacks for in-person classes at SMSC, Parent, Student, Board, Community Activities ($5000)
- Office Supplies for the lab school ($5000)
- College Tuition Costs through GMU for 2 credits of COS120 for 50 tenth graders, 3 credits of a SMSC Science elective for 50 juniors and seniors and 3 credits of COS400 for 50 juniors and seniors. Budget requests support for 8 credits per student for 50 students at $175 per credit ($70,000)
- Budget requests for 20 juniors and 20 seniors support to earn workforce data analytics certification at $200 per student ($8,000)
- Budget request transportation of students selected from different high schools to travel to the DSCA lab school located Dowell J Howard center with Frederick transportation ($70,000)
- Budget requests support for hosting DSCA Super Data Saturdays activity at GMU-SMSC campus ($14,500)

STAFF DEVELOPMENT

In Year 3, the principal request is to support the following in the amount of $30,500.

- Virginia High School Data Science Summit to train more teachers from the partner districts in the Shenandoah Valley to be able to teach high school data science or to continue to integrate Data and Computing in their courses ($20, 000)
- Travel to Conferences for the PI and Co-PI to disseminate our work as well as continue travel to VDOE and other Lab School sites to learn and share best practices ($10,500)

EQUIPMENT/TECHNOLOGY/FURNITURE

Budget requests $129,000 during the Year 3 to continue the set up the data hub classroom technology, equipment and infrastructure for the full lab school. The expenses include:

- A Data Hub innovations lab that will be continued to be modeled with new innovations ($40,000)
- In year 2, more foundational data science and computing software will be purchased and installed to be used for the lab school coursework ($20.000)
- Budget requests continuation of payments for two rental modules and labs purchased in Startup year for $20000 each ($40,000)
- Budget requests support for two rooms at GMU-SMSC facility to host in-person activities for lab school students ($15,000)
- Budget requests continued support for custodial services ($14,000)

FACILITIES AND ADMINISTRATIVE COSTS (F&A)

George Mason University has a predetermined F&A rate of 26% , Modified Total Direct Costs (MTDC), approved by the Office of Naval Research for off campus remote other sponsored activities. Participant support costs and SMCC classroom rentals have been excluded from the MTDC base. A total of $190,335 is requested from VDOE in the Year 0 to cover costs associated with the operation of the lab school that include the use of University resources such as legal counsel, human resources and payroll, technology support services, server space and equipment, facilities, utilities, risk management and insurance, sponsored programs administration, etc.

Annual Expenditure Sheet - Year 4
Budget Expenditure Worksheet

Personnel - Salaries	Number	Rate	Run Rate Annual Cost		Yr 4
Director	1	$ 80,000.00	$80,000		$80,000
PI	1	$15,076	$15,076		$15,076
PI-GMU Fringes	1	$ 1,101.00	$1,101		$1,101
Co-PI	1	$ 14,400.00	$14,400		$14,400
Administrative assistant (Part-time)	1	$ 40,000.00	$40,000		$40,000
Additional Teachers for 8 sections	8	$ 6,000.00	$48,000		$48,000
High School Teacher Instructors - 3 for DJH School	3	$ 80,000.00	$240,000		$240,000
Lab Technician/IT Teacher/System Admin	1	$ 89,750.00	$89,750		$89,750
Total Personnel Costs			**$528,327**		**$528,327**

Non-Personnel	Number	Rate	Run Rate Annual Cost		Yr 4
Student snacks	1	$ 5,000.00	$5,000		$5,000
Office supplies	1	$ 5,000.00	$5,000		$5,000
College tuition costs (per credit hours)	400	$ 175.00	$70,000		$70,000
Workforce Data Analytics Certificate	40	$ 200.00	$8,000		$8,000
Transportation	1	$ 70,000.00	$70,000		$70,000
GMU - SMSC Super Data Saturdays	1	$ 14,000.00	$14,000		$14,000
Total Non-Personnel Costs			**$172,000**		**$172,000**

Staff Development	Number	Rate	Run Rate Annual Cost		Yr 4
Teacher support/training (High School DSCA Summit)	1	$ 20,000.00	$20,000		$20,000
Travel	6	$ 1,750.00	$10,500		$10,500
Total Non-Personnel Costs			**$30,500**		**$30,500**

Equip/Tech/Furniture	Number	Rate	Run Rate Annual Cost		Yr 4
Data Hub Lab Classroom Technology/Equipment			$40,000		$40,000
Data Vizualization Software Licences	1	$ 20,000.00	$20,000		$20,000
Modulars & Lab	2	$ 20,000.00	$40,000		$40,000
SMSC Classroom Rental	1	$ 15,000.00	$15,000		$15,000
Custodial	1	$ 13,500.00	$13,500		$13,500
Total equipment/technology/furniture			**$128,500**		**$128,500**

Administrative Fees	Number	Rate	Run Rate Annual Cost		Yr 4
University administrative fees			$190,405		$190,405
Total admin fees - GMU Lab School Indirect Cost			**$190,405**		**$190,405**

Total Operating Costs			**$1,049,732**		**$1,049,732**

Annual Expenditure Sheet - Year 4
BUDGET JUSTIFICATION

PERSONNEL COSTS

Budget requests a total of $528, 327 in Year 4 towards Personnel Costs.

- PI Dr. Padmanabhan Seshaiyer from GMU will dedicate equivalent of 0.60 summer months to help coordinate the efforts of the Full Lab School operations. Fringes (FICA Only for summer, adjunct, non-student wages is 7.3%) in the amount of $1,048 is included for a total amount requested as $15,076 in Year 4.
- Co-PI Deb Crawford from Frederick County Public Schools will work closely with the PI at GMU and also help coordinate the efforts of the Full Lab School operations. Budget requested is $14,400 in Year 3 for her efforts.
- Budget requests continued support of the Lab School Director to serve in their capacity. A budget of $80,000 is requested in Year 4.
- Administrative Assistant will continue to be supported for $40,000 through a part-time position to assist the PIs during Year 4.
- Teachers for eight sections (four social studies and four English) will continue their services in the amount of $6000 per section ($48,000) in Year 4.
- Three dedicated DSCA Lab School will continue their services in Year 4 as teaching faculty of the lab school. Budget requests $80,000 per teacher for a total of $240,000.
- A Lab Technician and Systems Administrator identified in Year 1 will continued to support the efforts of the lab school in Year 4. Budget requests $89,750.

NON- PERSONNEL COSTS

Budget requests a total of $172,000 for Year 4 that includes:

- Snacks for in-person classes at SMSC, Parent, Student, Board, Community Activities ($5000)
- Office Supplies for the lab school ($5000)
- College Tuition Costs through GMU for 2 credits of COS120 for 50 tenth graders, 3 credits of a SMSC Science elective for 50 juniors and seniors and 3 credits of COS400 for 50 juniors and seniors. Budget requests support for 8 credits per student for 50 students at $175 per credit ($70,000)
- Budget requests for 20 juniors and 20 seniors support to earn workforce data analytics certification at $200 per student ($8,000)
- Budget request transportation of students selected from different high schools to travel to the DSCA lab school located Dowell J Howard center with Frederick transportation ($70,000)
- Budget requests support for hosting DSCA Super Data Saturdays activity at GMU-SMSC campus ($14,000)

STAFF DEVELOPMENT

In Year 4, the principal request is to support the following in the amount of $30,500.

- Virginia High School Data Science Summit to train more teachers from the partner districts in the Shenandoah Valley to be able to teach high school data science or to continue to integrate Data and Computing in their courses ($20, 000)
- Travel to Conferences for the PI and Co-PI to disseminate our work as well as continue travel to VDOE and other Lab School sites to learn and share best practices ($10,500)

EQUIPMENT/TECHNOLOGY/FURNITURE

Budget requests $128,500 during the Year 4 to continue the set up the data hub classroom technology, equipment and infrastructure for the full lab school. The expenses include:

- A Data Hub innovations lab that will be continued to be modeled with new innovations ($40,000)
- In year 2, more foundational data science and computing software will be purchased and installed to be used for the lab school coursework ($20.000)
- Budget requests continuation of payments for two rental modules and labs purchased in Startup year for $20000 each ($40,000)
- Budget requests support for two rooms at GMU-SMSC facility to host in-person activities for lab school students ($15,000)
- Budget requests continued support for custodial services ($13,500)

FACILITIES AND ADMINISTRATIVE COSTS (F&A)

George Mason University has a predetermined F&A rate of 26% , Modified Total Direct Costs (MTDC), approved by the Office of Naval Research for off campus remote other sponsored activities. Participant support costs and SMCC classroom rentals have been excluded from the MTDC base. A total of $190,405 is requested from VDOE in the Year 0 to cover costs associated with the operation of the lab school that include the use of University resources such as legal counsel, human resources and payroll, technology support services, server space and equipment, facilities, utilities, risk management and insurance, sponsored programs administration, etc.

Annual Expenditure Sheet - Year 5
Budget Expenditure Worksheet

Personnel - Salaries	Number	Rate	Run Rate Annual Cost		Yr 5
Director	1	$ 80,000.00	$80,000		$80,000
PI	1	$15,830	$15,830		$15,830
PI-GMU Fringes	1	$ 1,156.00	$1,156		$1,156
Co-PI	1	$ 14,400.00	$14,400		$14,400
Administrative assistant (Part-time)	1	$ 40,000.00	$40,000		$40,000
Additional Teachers for 8 sections	8	$ 6,000.00	$48,000		$48,000
High School Teacher Instructors - 3 for DJH School	3	$ 80,000.00	$240,000		$240,000
Lab Technician/IT Teacher/System Admin	1	$ 89,750.00	$89,750		$89,750
Total Personnel Costs			**$529,136**		**$529,136**

Non-Personnel	Number	Rate	Run Rate Annual Cost		Yr 5
Student snacks	1	$ 5,000.00	$5,000		$5,000
Office supplies	1	$ 5,000.00	$5,000		$5,000
College tuition costs (per credit hours)	400	$ 175.00	$70,000		$70,000
Workforce Data Analytics Certificate	40	$ 200.00	$8,000		$8,000
Transportation	1	$ 70,000.00	$70,000		$70,000
GMU - SMSC Super Data Saturdays	1	$ 14,500.00	$14,500		$14,500
Total Non-Personnel Costs			**$172,500**		**$172,500**

Staff Development	Number	Rate	Run Rate Annual Cost		Yr 5
Teacher support/training (High School DSCA Summit)	1	$ 20,000.00	$20,000		$20,000
Travel	6	$ 1,750.00	$10,500		$10,500
Total Non-Personnel Costs			**$30,500**		**$30,500**

Equip/Tech/Furniture	Number	Rate	Run Rate Annual Cost		Yr 5
Data Hub Lab Classroom Technology/Equipment			$37,500		$37,500
Data Vizualization Software Licences	1	$ 20,000.00	$20,000		$20,000
Modulars & Lab	2	$ 20,000.00	$40,000		$40,000
SMSC Classroom Rental	1	$ 15,000.00	$15,000		$15,000
Custodial	1	$ 15,000.00	$15,000		$15,000
Total equipment/technology/furniture			**$127,500**		**$127,500**

Administrative Fees	Number	Rate	Run Rate Annual Cost		Yr 5
University administrative fees			$190,355		$190,355
Total admin fees - GMU Lab School Indirect Cost			**$190,355**		**$190,355**

Total Operating Costs			**$1,049,991**		**$1,049,991**

Annual Expenditure Sheet - Year 5
BUDGET JUSTIFICATION

PERSONNEL COSTS

Budget requests a total of $529,136 in Year 5 towards Personnel Costs.

- PI Dr. Padmanabhan Seshaiyer from GMU will dedicate equivalent of 0.60 summer months to help coordinate the efforts of the Full Lab School operations. Fringes (FICA Only for summer, adjunct, non-student wages is 7.3%) in the amount of $1,048 is included for a total amount requested as $15,830 in Year 5.
- Co-PI Deb Crawford from Frederick County Public Schools will work closely with the PI at GMU and also help coordinate the efforts of the Full Lab School operations. Budget requested is $14,400 in Year 5 for her efforts.
- Budget requests continued support of the Lab School Director to serve in their capacity. A budget of $80,000 is requested in Year 5.
- Administrative Assistant will continue to be supported for $40,000 through a part-time position to assist the PIs during Year 5.
- Teachers for eight sections (four social studies and four English) will continue their services in the amount of $6000 per section ($48,000) in Year 5.
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In Year 5, the principal request is to support the following in the amount of $30,500.

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Bylaws Document

The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data Science, Computing and Applications (DCSA)

Article I: Name and Purpose

1.1 **Name**: The name of this organization shall be the Data Science, Computing and Applications (DSCA) Lab School.

1.2 **Purpose**: The purpose of the DSCA Lab School is to provide innovative educational opportunities in data science and computing applications to students within the Shenandoah Valley region.

Article II: Governance Structure

2.1 **Governing Board**: The Governing Board shall serve as the highest authority overseeing the operations of the DSCA Lab School. It shall consist of members with diverse expertise, including representatives from participating school divisions, higher education institutions, and community organizations.

2.2 **Superintendent's Committee**: The Superintendent's Committee shall provide advisory support to the Governing Board and shall consist of Superintendents from participating school divisions and the Regional Director of the Governor's School at Mountain Vista.

2.3 **Planning Committee**: The Planning Committee shall be responsible for designing educational content and guidelines for the lab school and shall consist of key stakeholders, including Principal Investigators, school principals, and academic administrators.

Article III: Leadership and Management

3.1 **Lab School Director**: The Lab School Director shall be appointed by the Governing Board and shall be responsible for the day-to-day operations of the lab school. The Director shall report directly to the Governing Board and oversee all educational and administrative staff.

3.2 **Principal**: The Principal of the lab school shall work closely with the Lab School Director and shall be responsible for the management of daily operations at the school site.

Article IV: Meetings and Decision-Making

4.1 **Governing Board Meetings**: The Governing Board shall hold regular meetings to discuss and make decisions on matters pertaining to the lab school's operations and strategic initiatives. Meetings shall be scheduled at least quarterly and shall be open to the public.

4.2 **Decision-Making**: Decisions of the Governing Board shall be made by a majority vote of members present at a meeting, provided that a quorum is present. A quorum shall consist of at least two-thirds of the total membership of the Governing Board.

Article V: Amendments

5.1 **Amendment Procedure**: These bylaws may be amended by a two-thirds majority vote of the Governing Board at a regular or special meeting called for that purpose. Proposed amendments must be submitted in writing to all members of the Governing Board at least thirty days prior to the meeting at which they will be considered.

Article VI: Adoption

6.1 **Adoption**: These bylaws shall be adopted upon approval by the Governing Board and shall supersede any previous bylaws or governing documents of the DSCA Lab School.

Article VII: Effective Date

7.1 Effective Date: These bylaws shall become effective immediately upon adoption by the Governing Board.

Article VIII: Dissolution

8.1 Dissolution: In the event of the dissolution of the DSCA Lab School, any remaining assets shall be distributed to one or more tax-exempt organizations with similar educational purposes, as determined by the Governing Board.

Article IX: Ratification

9.1 Ratification: These bylaws are hereby ratified and adopted by the Governing Board of the DSCA Lab School on [Date of Adoption].

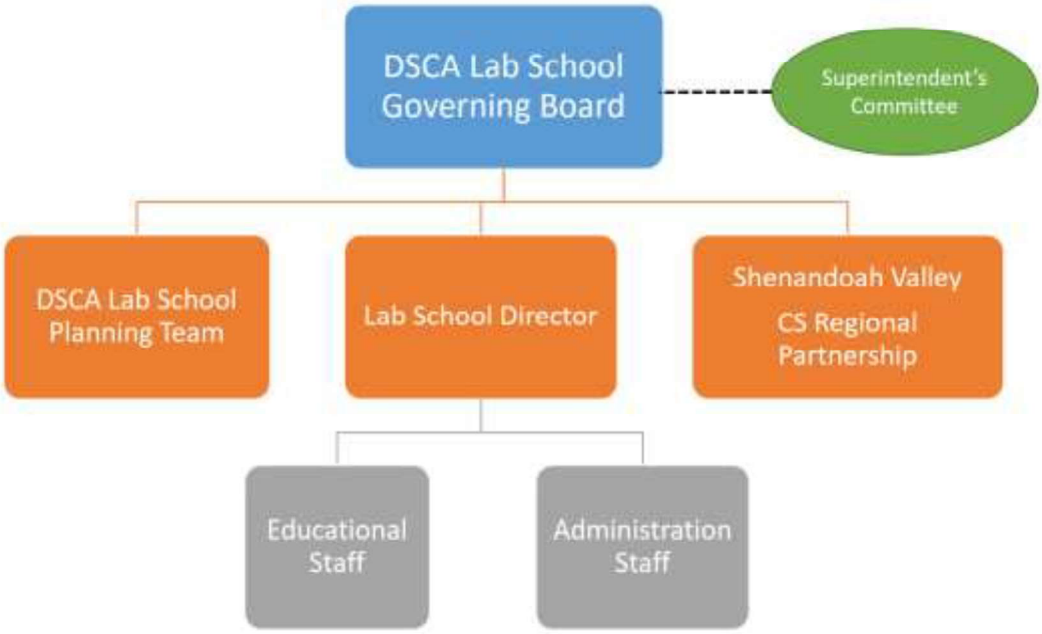
Signature: [Signature of Chairperson]

Date: [Date of Adoption]

Legal Operations Document

The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data Science, Computing and Applications (DCSA)

Organizational Chart



Level 1: DSCA Lab School Governing Board

- Chair: Dr. Hummer, Superintendent, Frederick County Public Schools
- Co-Chair: Dr. Fernando Miralles-Wilhelm, Dean, George Mason University
- Dr. Cody Edwards, Executive Director, SMSC, George Mason University
- Dr. Juliette Myers, Director, Frederick County Public Schools
- Dr. Johanna Weiss, VP Academic Affairs, Laurel Ridge Community College
- Dr. Sharon Johnson, CEO, Shenandoah Valley Workforce Development Board
- Dr. Yolanda Shields, CEO of Yes builds and Appointed Member of Governor's Workforce Development Board
- Mr. Brian Thomas, James Wood High School,
- Two Parent Representatives, Frederick County Public Schools
- One Senior Student Representative, Frederick County Public Schools

Level 2: Superintendent's Committee

- Consists of Superintendents from seven participating school divisions
- Regional Director of the Governor's School at Mountain Vista
- Members include:
    - Mr. Rick Catlett, Superintendent, Clarke County
    - Dr. Major Warner, Fauquier County
    - Dr. George Hummer, Superintendent, Frederick County Public Schools
    - Dr. Melody Sheppard, Superintendent, Shenandoah County
    - Dr. Antonia M. Fox, Superintendent, Page County
    - Dr. Chris Ballenger, Superintendent, Warren County
    - Dr. Jason Van Heukelum, Winchester Public Schools
    - Dr. Kelly A Huff, Regional Director, Mountain Vista Governor's School.

Level 3: DSCA Lab School Planning Committee

- Dr. Padmanabhan Seshaiyer, PI, George Mason University
- Dr. Julie Myers, Director, Frederick County Public Schools
- Dr. Ia Gomez, Dean, Laurel Ridge Community College
- Dr. Deb Crawford, Co-PI, Frederick County Public Schools
- Mr. Ben Thompson, Principal, Dowell J Howard Center

Shenandoah Valley CS Regional Partnership

- Clarke, Dr. Jessica Nail
- Fauquier, Ms. Angie Ashley
- Frederick, Dr. Deb Crawford, Co-PI
- Page, Ms. Leigh Ann Pettit
- Shenandoah, Mr. Tim Taylor
- Warren, Ms. Katie Grimley

- Winchester, Ms. Katie Lockhart
- GMU, Dr. Padmanabhan Seshaiyer, PI
- Shenandoah University, Dr. Chase Mathison
- LRCC, Ms. Heather Burton

Reporting Structure:

- The Lab School Director reports directly to the DSCA Lab School Governing Board.
- The Director oversees the educational staff and administrative staff members.
- Principal Ben Thompson at Dow J Howard Center works closely with the Lab School Director.
- The Shenandoah Valley CS Regional Partnership team collaborates closely with PI Seshaiyer and Co-PI Crawford on the lab school's development.

Responsibilities:

- The Governing Board oversees all operations and strategic initiatives of the lab school.
- The Superintendent's Committee provides advisory support to the Governing Board.
- The Planning Committee designs educational content and guidelines for the lab school.
- The Lab School Director manages day-to-day operations and ensures alignment with strategic goals.
- The educational staff delivers instruction, while administrative staff facilitates communication and management within the organization's structure.

Conclusion: This legal operations document outlines the organizational structure, reporting relationships, and responsibilities within the DSCA Lab School. It ensures clear lines of authority, accountability, and collaboration among key stakeholders involved in the lab school's governance and operations.

College of Science
4400 University Drive, MS 5C3, Fairfax, Virginia 22030
Phone: 703-993-3622; Fax: 703-993-1993, science.gmu.edu

March 13, 2024

Virginia College Partnership Laboratory School Committee
Virginia Department of Education (VDOE)

RE: Letter of support from George Mason University Executive Leader

Dear Selection Committee Member,

If the proposal submitted by Dr. Padmanabhan Seshaiyer, Professor and Director, Center for Outreach in Mathematics Professional Learning and Educational Technology (COMPLETE) at George Mason University, entitled "***The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data and Computing,***" is selected for funding by the Virginia Department of Education (VDOE), it is the intent of the College of Science and George Mason University to collaborate with Frederick County Public Schools and Laurel Ridge Community College on the implementation of the proposed lab school.

Once established, the intent will be to expand the offerings of this proposed lab school to seven school divisions in the Shenandoah Valley Rural Regional Partnership and a Governor's School in the region. This expansion would include: Clarke County, Fauquier County, Frederick County, Page County, Shenandoah County, Warren County and Winchester City along with Mountain Vista Governor's School.

As a leader in Data Science, Engineering and Computing, George Mason is excited to be hosting this College Partnership Laboratory collaborating with Frederick County Public Schools that will serve hundreds of students and teachers from this region that includes ***rural and rural fringe*** school districts in the Shenandoah Valley. I am also excited that all of the participating students and teachers will have an opportunity to take dual enrollment classes with George Mason through this program. Dr. Padmanabhan Seshaiyer (George Mason University), will work closely with Dr. Deb Crawford (Frederick County Public Schools) to coordinate all project activities over the course of the full lab school award. Both Drs. Seshaiyer and Crawford have extensive experience and have served as the leaders in higher education and K-12, respectively, for the newly approved Virginia Board of Education High School Data Science Standards of Learning, Curriculum and Course for the Commonwealth of Virginia.

Dr. Seshaiyer who has been at George Mason University since 2007, has contributed extensively to research, teaching, and outreach. He currently serves as an appointed member by the Governor of Virginia on two statewide boards; the VA STEM Advisory Board (reporting to the VA Secretary of Education) and the VA Workforce Development Board (reporting to the VA Secretary of Labor). Drs. Seshaiyer and Crawford represent a strong leadership team for the Shenandoah Valley Rural Regional College Partnership Laboratory School for Data, Computing and applications, and have rich experiences in developing and managing programs with a strong record in promoting research and innovation at all levels. I am pleased to note that the proposed Lab School will build on four years of successful

partnership between George Mason University and Frederick County Public Schools through the VDOE Advancing Computer Science Education grants for the Shenandoah Valley that has already positively impacted hundreds of students and teachers. The program was also recognized in 2023 as a "Program that Works" by the Virginia Math and Science Coalition for both students and teachers.

I offer my strongest endorsement to the proposal and provide my assurances that we will support the project throughout its implementation. Please let me know if you have any questions.

Sincerely,

Fernando R. Miralles-Wilhelm
Dean
College of Science
George Mason University

Frederick County Public Schools

Superintendent of Schools

George C. Hummer, Ed.D.
hummerg@fcpsk12.net

March 14, 2024

Virginia College Partnership Laboratory School Committee
Virginia Department of Education (VDOE)

RE: Letter of support from Superintendent, Frederick County Public Schools

Dear Selection Committee Member,

If the proposal submitted by Dr. Padmanabhan Seshaiyer, Professor and Director, Center for Outreach in Mathematics Professional Learning and Educational Technology (COMPLETE) at George Mason University, entitled "The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data and Computing," is selected for funding by the Virginia Department of Education (VDOE), it is the intent of Frederick County Public Schools to collaborate with George Mason University on the implementation of the proposed lab school.

Once funded, the Data Science and Computing Applications Laboratory School would be implemented on a small scale at D.J. Howard led by Ben Thompson, the Principal. In the next several years, the lab school would be expanded to include a Data Hub equipped with industry equipment and software serving high school juniors and seniors. The lab school would offer opportunities for students to earn a Data Analytics Certificate, Work-Based Learning apprenticeship as a data analyst, and/or University Research projects mentored by university faculty. It would be possible for students to earn up to 12 free college credits annually and an industry certificate.

Frederick County Public Schools is excited to partner with George Mason University, a leader in Data Science, Engineering, and Computing. I am excited that all participating students and teachers can take college credit classes with George Mason through this program. Dr. Padmanabhan Seshaiyer (George Mason University) will work closely with Dr. Deb Crawford (Frederick County Public Schools) to coordinate the implementation of the various phases of the Lab school.

Both Drs. Seshaiyer and Crawford have extensive experience and have served as the leaders in higher education and K-12, respectively, for the newly approved Virginia Board of Education

High School Data Science Standards of Learning, Curriculum, and Course for the Commonwealth of Virginia. Drs. Seshaiyer and Crawford represent a strong leadership team for the Shenandoah Valley Rural Regional College Partnership Laboratory School for Data, Computing, and Applications. They have rich experience developing and managing programs and a strong record in promoting research and innovation at all levels. I am pleased to note that the proposed Lab School will build on four years of successful partnership between George Mason University and Frederick County Public Schools through the VDOE Advancing Computer Science Education grants for the Shenandoah Valley. This work has already positively impacted hundreds of students and teachers. The program was also recognized in 2023 as a "Program that Works" by the Virginia Math and Science Coalition for both students and teachers.

I strongly endorse the proposal and assure you that we will support the project throughout its implementation. Please let me know if you have any questions.

Sincerely,

George C. Hummer, Ed.D.
Superintendent of Schools

March 20, 2024

Virginia College Partnership Laboratory School Committee
Virginia Department of Education (VDOE)

RE: Letter of support from Dr. Johanna Weiss, Laurel Ridge Community College

Dear Selection Committee Member,

I am excited to write this letter of support for Dr. Padmanabhan Seshaiyer, Professor and Director at George Mason University (GMU) for the proposal titled "***The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data and Computing".*** If this proposal is selected for funding by the Virginia Department of Education (VDOE) for a **full** College Partnership Laboratory School, it is my intent to collaborate with Dr. Seshaiyer on the establishment of dual enrollment opportunities and educational/career pathways through Laurel Ridge Community College (LRCC) for students in the proposed lab school.

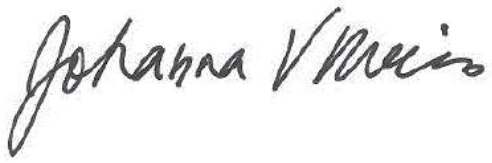
I currently serve as the Vice President for Academic and Student Affairs at LRCC. LRCC has partnered with GMU in the Shenandoah Regional CS Partnership for the last four years. This partnership has included Clarke County, Fauquier County, Frederick County, Mountain Vista Governor's School, Page County, Shenandoah County, Shenandoah University, Warren County and Winchester City. This targeted regional partnership has helped to enhance the pedagogical practices and content knowledge of teachers in computer science and computational thinking in order to implement the K-8 Virginia Computer Science Standards of Learning. I am excited to partner with GMU now to expand programs and pathways in Data Science, Computing and Applications for teachers and students in the Shenandoah Valley.

Our LRCC team will include myself, Dr. Ia Gomez (Dean of STEM) and Beth Dodson (Professor, Mathematics Department). Our focus will be on creating opportunities for students to be able to take dual enrollment coursework at LRCC as part of articulated pathways in Data Science (e.g. 2 + 2), provide students with an option to earn an applied certificate through LRCC, and/or support continued professional learning for teachers. We will also plan on working with GMU on potential opportunity to engage doctoral GMU students to teach Data Science and Computing college courses for the students in the lab school.

We are excited to work with Dr. Seshaiyer on this proposed lab school as he brings a lot of content expertise and leadership experience in building such data-focused and computing initiatives that is very much needed for serving students from rural and rural fringe school districts in the Shenandoah Valley and the Commonwealth. I fully support this proposal and will support the project in any way that I can throughout its implementation. Please let me know if you have any questions.

Laurel Ridge COMMUNITY COLLEGE

Sincerely,



Johanna V. Weiss, Ph.D.

Vice President of Academic and Student Affairs, Laurel Ridge Community College

Smithsonian-Mason School of Conservation

March 22, 2024

Virginia College Partnership Laboratory School Committee
Virginia Department of Education (VDOE)

RE: Letter of support from Dr. Cody W. Edwards

Dear Selection Committee Member,

I am excited to write this letter of support for Dr. Padmanabhan Seshaiyer, Professor and Director at George Mason University for the GMU proposal titled "***The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data and Computing".*** If this proposal is selected for funding by the Virginia Department of Education (VDOE) for a **full** College Partnership Laboratory School, it is my intent to collaborate with Dr. Seshaiyer as detailed in the project narrative on the implementation of the proposed lab school structure.

I currently serve in multiple leadership positions including the Senior Associate Dean for Faculty and Academic Affairs, Associate Provost for a Sustainable Earth and the Executive Director, Smithsonian-Mason School of Conservation (SMSC). I am very happy to learn that this GMU College Partnership lab school will help build a new collaboration between the Shenandoah Valley Regional Partnership that Dr. Seshaiyer has been an integral part of representing GMU and the SMSC that includes Smithsonian scientists, Mason faculty, and experts from conservation organizations around the world that provide direct connections to the most current teaching, and research work in the field. As the Executive Director of SMSC, I am confident that that high school students from all the partner districts in the Shenandoah Valley who will be a part of this program will have the opportunity to become a part of a lifelong global community that supports visionary thinking and informed practice of Data, Computing and Applications to STEM. We will work closely with Dr. Seshaiyer at GMU, leadership at Frederick County Public Schools and all the other partners in the Shenandoah Valley Regional Partnership in providing opportunities for students to be able to take dual enrollment coursework as well as provide teachers upskilling and reskilling opportunities through continuous professional learning.

Dr. Seshaiyer's leadership and contributions have had a profound impact on both the academic community and society at large, advancing our understanding of the impact of Data Science, Computing and applications to real-world problems. He continues to be actively involved in

promoting STEM education and outreach initiatives for the College, University and beyond. He has developed innovative teaching methods and educational programs to engage students and teachers at all levels in data science, mathematics and computational sciences, particularly those from underrepresented, underserved and underfunded groups. I am excited to have SMSC be a part of this GMU College Partnership Laboratory School implementation process under Dr. Seshaiyer's leadership, that will serve hundreds of students and teachers from this region that includes ***rural and rural fringe*** school districts in the Shenandoah Valley. I strongly support this proposal and provide my assurances that we will support the project throughout its implementation. Please let me know if you have any questions.

Sincerely,

Cody W. Edwards, Ph.D.
Executive Director, Smithsonian-Mason School of Conservation
Senior Associate Dean for Faculty and Academic Affairs, College of Science
Associate Provost for a Sustainable Earth

1500 Remount Road, Front Royal, VA 22630 • 540.635.0115 • **smconservation.gmu.edu**

Sid and Reva Dewberry Department of Civil, Environmental & Infrastructure Engineering
Volgenau School of Engineering
Nguyen Engineering Building, 4400 University Drive, MS 6C1, Fairfax, Virginia 22030
Girum Urgessa, Ph.D, P.E., F.SEI, F.ASCE
Tel: 703-993-1658; E-mail: gurgessa@gmu.edu; Web: https://www.girum-urgessa.com/

March 20, 2024

Virginia College Partnership Laboratory School Committee
Virginia Department of Education (VDOE)

RE: Letter of support from Dr. Girum Urgessa

Dear Selection Committee Member,

I am writing this letter to strongly support the application from Dr. Padmanabhan Seshaiyer, Professor and Director at George Mason University for the GMU proposal titled "***The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data and Computing".*** If this proposal is selected for funding by the Virginia Department of Education (VDOE) for a **full** College Partnership Laboratory School, it is my intent to collaborate with Dr. Seshaiyer as detailed in the project narrative on the implementation of the proposed lab school structure.

I am an Associate Professor in the Sid and Reva Dewberry Department of Civil, Environmental, and Infrastructure Engineering and Director of Student Leadership and Success in the College of Engineering and Computing (CEC) at George Mason University (GMU). My research interests include the dynamic response of structures subjected to air-blast, impact, progressive collapse, and underwater explosions; the use of fiber-reinforced polymer composites in structural design and retrofit applications; and engineering education and outreach. I teach courses in structural engineering, mechanics, and materials, and received the John Toups Presidential Medal for Faculty Excellence in Teaching (2022) among other awards.

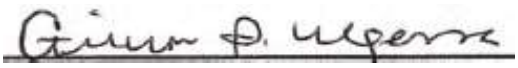
As Director of Student Leadership and Success in my college, I am thrilled to collaborate with Dr. Seshaiyer in offering learning opportunities for students in the proposed lab school to develop a deeper understanding and appreciation for the field of engineering while also fostering their curiosity and passion for Data, Computing, and Applications. This is an excellent opportunity for students from the partnering rural and rural fringe districts in the Shenandoah Valley to develop the skills, knowledge, and experience needed to pursue a career in engineering and make meaningful contributions to the field

of data science and analytics. At GMU, we are a KEEN (Kern Entrepreneurial Engineering Network) partner institution where we mentor students through the 3Cs of learning, to investigate a rapidly changing world with an insatiable *curiosity*, to habitually pursue knowledge and integrate it through *connections*, and to train students to *create value* personally or socially. Through this proposed lab school and collaboration with Dr. Seshaiyer, we will infuse the 3Cs of learning for high school students and prepare them better for pursuing college pathways.

I have worked with Dr. Seshaiyer on several outreach and education initiatives. Dr. Seshaiyer's recognition as one of the best faculty in higher education for outreach and education reflects his passion for teaching, his dedication to serving students and communities, and his commitment to advancing the field of education through innovative and impactful initiatives such as this lab school initiative. I am excited to partner with the GMU College Partnership Laboratory School implementation process under Dr. Seshaiyer's leadership.

I fully support this proposal and provide my assurances that I will actively participate in the project throughout its implementation. Please let me know if you have any questions.

Sincerely,



Girum Urgessa, Ph.D., P.E., F.SEI, F.ASCE
Associate Professor
Sid and Reva Dewberry Department of Civil, Environmental, and Infrastructure Engg.
Director of Student Leadership and Success
College of Engineering and Computing
George Mason University
E-mail: gurgessa@gmu.edu
Website: https://www.girum-urgessa.com/

Rick Catlett
Superintendent

Dr. Jessica Nail
Director of Curriculum & Instruction

Frank Moore
Director of Student Services

Clarke County Public Schools
317 West Main Street, Suite A
Berryville, Virginia 22611
Phone: 540-955-6100
Fax: 540-955-6145
www.clarke.k12.va.us

"Encourage Inspire Empower"

Dr. Cathy Seal
Assistant Superintendent

Randy Trenary
Director of Operations

Dr. Ed Shewbridge
Director of Technology & Testing

March 15, 2024

Virginia College Partnership Laboratory School Committee
Virginia Department of Education (VDOE)

RE: Letter of support from Rick Catlett, Superintendent Clarke County Public Schools

Dear Selection Committee Member,

If the proposal submitted by Dr. Padmanabhan Seshaiyer, Professor and Director, George Mason University and Dr. Deborah Crawford, Supervisor of Mathematics & World Language, Frederick County Public Schools, entitled "***The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data and Computing,***" is selected for funding by the Virginia Department of Education (VDOE) for a **full** College Partnership Laboratory School, it is the intent of Clarke County Public Schools to collaborate with George Mason University and Frederick County Public Schools on the implementation of the proposed lab school.

Both Drs. Seshaiyer and Crawford have extensive experience and have served as the leaders in higher education and K-12, respectively, for the newly approved Virginia Board of Education High School Data Science Standards of Learning, Curriculum and Course for the Commonwealth of Virginia. They represent a strong leadership team for the Shenandoah Valley Rural Regional College Partnership Laboratory School for ***Data, Computing and applications***, and have rich experiences in developing and managing programs with a strong record in promoting research and innovation at all levels. I am pleased to note that the proposed Lab School will build on four years of successful partnership between George Mason University and Frederick County Public Schools through the VDOE Advancing Computer Science Education grants for the Shenandoah Valley that has already positively impacted hundreds of students and teachers. The program was also recognized in 2023 as a "Program that Works" by the Virginia Math and Science Coalition for both students and teachers.

We are excited to partner with them to create this College Partnership Laboratory School that will serve hundreds of students and teachers from this region that including ***rural and rural fringe*** school districts in the Shenandoah Valley. I strongly support this proposal and provide my assurances that we will support the project throughout its implementation. Please let me know if you have any questions.

Sincerely,

Rick Catlett, Superintendent
Clarke County Public Schools

Fauquier County Public Schools

Dr. Major R. Warner, Jr.
Superintendent
320 Hospital Drive, Suite 40
Warrenton, VA 20186-3037
540-422-7006

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March 20, 2024

Virginia College Partnership Laboratory School Committee
Virginia Department of Education (VDOE)

RE: Letter of support from Dr. Major Warner, Superintendent, Fauquier County Public Schools

Dear Selection Committee Member,

If the proposal submitted by Dr. Padmanabhan Seshaiyer, Professor and Director, George Mason University and Dr. Deborah Crawford, Supervisor of Mathematics & World Language, Frederick County Public Schools, entitled "***The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data and Computing,***" is selected for funding by the Virginia Department of Education (VDOE) for a **full** College Partnership Laboratory School, it is the intent of Fauquier County Public Schools to collaborate with George Mason University and Frederick County Public Schools on the implementation of the proposed lab school.

Both Drs. Seshaiyer and Crawford have extensive experience and have served as the leaders in higher education and K-12, respectively, for the newly approved Virginia Board of Education High School Data Science Standards of Learning, Curriculum and Course for the Commonwealth of Virginia. They represent a strong leadership team for the Shenandoah Valley Rural Regional College Partnership Laboratory School for ***Data, Computing and applications***, and have rich experiences in developing and managing programs with a strong record in promoting research and innovation at all levels. I am pleased to note that the proposed Lab School will build on four years of successful partnership between George Mason University and Frederick County Public Schools through the VDOE Advancing Computer Science Education grants for the Shenandoah Valley that has already positively impacted hundreds of students and teachers. The program was also recognized in 2023 as a "Program that Works" by the Virginia Math and Science Coalition for both students and teachers.

We are excited to partner with them to create this College Partnership Laboratory School that will serve hundreds of students and teachers from this region that includes ***rural and rural fringe*** school districts in the Shenandoah Valley. I strongly support this proposal and provide my assurances that we will support the project throughout its implementation. Please let me know if you have any questions.

Sincerely,

Major R. Warner

Dr. Major Warner
Superintendent

PAGE COUNTY PUBLIC SCHOOLS

735 West Main Street, Luray, Virginia 22835
Phone 540.743.6533 ~ Fax 540.743.7784
www.pagecounty.k12.va.us

March 15, 2024

Virginia College Partnership Laboratory School Committee
Virginia Department of Education (VDOE)

RE: Letter of support from Dr. Antonia Fox, Page County Public Schools

Dear Selection Committee Member,

If the proposal submitted by Dr. Padmanabhan Seshaiyer, Professor and Director, George Mason University and Dr. Deborah Crawford, Supervisor of Mathematics & World Language, Frederick County Public Schools, entitled "***The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data and Computing,***" is selected for funding by the Virginia Department of Education (VDOE) for a **full** College Partnership Laboratory School, it is the intent of Page County Public Schools to collaborate with George Mason University and Frederick County Public Schools on the implementation of the proposed lab school.

Both Drs. Seshaiyer and Crawford have extensive experience and have served as the leaders in higher education and K-12, respectively, for the newly approved Virginia Board of Education High School Data Science Standards of Learning, Curriculum and Course for the Commonwealth of Virginia. They represent a strong leadership team for the Shenandoah Valley Rural Regional College Partnership Laboratory School for ***Data, Computing and applications***, and have rich experiences in developing and managing programs with a strong record in promoting research and innovation at all levels. I am pleased to note that the proposed Lab School will build on four years of successful partnership between George Mason University and Frederick County Public Schools through the VDOE Advancing Computer Science Education grants for the Shenandoah Valley that has already positively impacted hundreds of students and teachers. The program was also recognized in 2023 as a "Program that Works" by the Virginia Math and Science Coalition for both students and teachers.

We are excited to partner with them to create this College Partnership Laboratory School that will serve hundreds of students and teachers from this region that includes ***rural and rural fringe*** school districts in the Shenandoah Valley. I strongly support this proposal and provide my assurances that we will support the project throughout its implementation. Please let me know if you have any questions.

Sincerely,

Antonia M. Fox.

Antonia M. Fox, Ed.D.
Superintendent

"Sharing the Journey Toward Excellence"

600 North Main Street, Suite 200 • Woodstock, VA 22664 • (540) 459-6222 • FAX (540) 459-6707
Office of Superintendent

March 12, 2024

Virginia College Partnership Laboratory School Committee
Virginia Department of Education (VDOE)

RE: Letter of support from Melody Sheppard, Superintendent, Shenandoah County Public Schools

Dear Selection Committee Member:

If the proposal submitted by Dr. Padmanabhan Seshaiyer, Professor and Director, George Mason University and Dr. Deborah Crawford, Supervisor of Mathematics & World Language, Frederick County Public Schools, entitled "***The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data and Computing,***" is selected for funding by the Virginia Department of Education (VDOE) for a **full** College Partnership Laboratory School, it is the intent of Shenandoah County Public Schools to collaborate with George Mason University and Frederick County Public Schools on the implementation of the proposed lab school.

Both Drs. Seshaiyer and Crawford have extensive experience and have served as the leaders in higher education and K-12, respectively, for the newly approved Virginia Board of Education High School Data Science Standards of Learning, Curriculum and Course for the Commonwealth of Virginia. They represent a strong leadership team for the Shenandoah Valley Rural Regional College Partnership Laboratory School for ***Data, Computing and applications***, and have rich experiences in developing and managing programs with a strong record in promoting research and innovation at all levels. I am pleased to note that the proposed Lab School will build on four years of successful partnership between George Mason University and Frederick County Public Schools through the VDOE Advancing Computer Science Education grants for the Shenandoah Valley that has already positively impacted hundreds of students and teachers. The program was also recognized in 2023 as a "Program that Works" by the Virginia Math and Science Coalition for both students and teachers.

We are excited to partner with them to create this College Partnership Laboratory School that will serve hundreds of students and teachers from this region that includes ***rural and rural fringe*** school districts in the Shenandoah Valley. I strongly support this proposal and provide my assurances that we will support the project throughout its implementation. Please let me know if you have any questions.

Sincerely,

Melody Sheppard

Melody Sheppard, Ed.D.
Superintendent
Shenandoah County Public Schools

Warren County Public Schools
210 North Commerce Avenue
Front Royal, Virginia 22630-4419
Phone (540) 635-2171
Fax (540) 636-4195
www.wcpsva.org

OFFICE OF THE SUPERINTENDENT

March 15, 2024

Virginia College Partnership Laboratory School Committee
Virginia Department of Education (VDOE)

RE: Letter of support from Chris Ballenger Warren County Public Schools

Dear Selection Committee Member,

If the proposal submitted by Dr. Padmanabhan Seshaiyer, Professor and Director, George Mason University and Dr. Deborah Crawford, Supervisor of Mathematics & World Language, Frederick County Public Schools, entitled "***The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data and Computing,***" is selected for funding by the Virginia Department of Education (VDOE) for a **full** College Partnership Laboratory School, it is the intent of Warren County Public Schools to collaborate with George Mason University and Frederick County Public Schools on the implementation of the proposed lab school.

Both Drs. Seshaiyer and Crawford have extensive experience and have served as the leaders in higher education and K-12, respectively, for the newly approved Virginia Board of Education High School Data Science Standards of Learning, Curriculum and Course for the Commonwealth of Virginia. They represent a strong leadership team for the Shenandoah Valley Rural Regional College Partnership Laboratory School for ***Data, Computing and applications***, and have rich experiences in developing and managing programs with a strong record in promoting research and innovation at all levels. I am pleased to note that the proposed Lab School will build on four years of successful partnership between George Mason University and Frederick County Public Schools through the VDOE Advancing Computer Science Education grants for the Shenandoah Valley that has already positively impacted hundreds of students and teachers. The program was also recognized in 2023 as a "Program that Works" by the Virginia Math and Science Coalition for both students and teachers.

We are excited to partner with them to create this College Partnership Laboratory School that will serve hundreds of students and teachers from this region that including ***rural and rural fringe*** school districts in the Shenandoah Valley. I strongly support this proposal and provide my assurances that we will support the project throughout its implementation. Please let me know if you have any questions.

Sincerely,

Chris Ballenger, Ed.D.
Superintendent
Warren County Public Schools

WINCHESTER PUBLIC SCHOOLS
Learning for all, whatever it takes
598 N. Kent Street, Winchester, VA 22601
P 540-667-4253 **F** 540-722-6198

March 26, 2024

Virginia College Partnership Laboratory School Committee
Virginia Department of Education (VDOE)

RE: Letter of support from Dr. April M. Bruce, Winchester Public Schools

Dear Selection Committee Member,

I am writing to support the proposal submitted by Dr. Padmanabhan Seshaiyer, Professor and Director, George Mason University and Dr. Deborah Crawford, Supervisor of Mathematics & World Language, Frederick County Public Schools, entitled "***The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data and Computing.***" Should this be selected for funding by the Virginia Department of Education (VDOE) for a **full** College Partnership Laboratory School, it is the intent of Winchester Public Schools to collaborate with George Mason University and Frederick County Public Schools on the implementation of the proposed lab school.

Drs. Seshaiyer and Crawford have extensive experience and have served as the leaders in higher education and K-12, respectively, for the newly approved Virginia Board of Education High School Data Science Standards of Learning, Curriculum and Course for the Commonwealth of Virginia. They represent a strong leadership team for the Shenandoah Valley Rural Regional College Partnership Laboratory School for ***Data, Computing and applications***, and have rich experiences in developing and managing programs with a strong record in promoting research and innovation at all levels. I am pleased to note that the proposed Lab School will build on four years of successful partnership between George Mason University and Frederick County Public Schools through the VDOE Advancing Computer Science Education grants for the Shenandoah Valley that has already positively impacted hundreds of students and teachers. The program was also recognized in 2023 as a "Program that Works" by the Virginia Math and Science Coalition for both students and teachers.

We look forward to the possibility of collaborating with Drs. Seshaiyer and Crawford to create this College Partnership Laboratory School that will serve hundreds of students and teachers from this region that includes ***rural and rural fringe*** school districts in the Shenandoah Valley. I strongly support this proposal and provide my assurances that we will support the project throughout its implementation. Please let me know if you have any questions.

Sincerely,

April M. Bruce

April M. Bruce, Ed.D.
Assistant Superintendent

WINCHESTER PUBLIC SCHOOLS

Learning for all, whatever it takes

Kent Street, Winchester, VA 22601

40-722-6198

Name
Title and Affiliation

Sincerely,

Name
Title

MOUNTAIN VISTA
Governor's School for Science, Math and Technology
173 Skirmisher Lane • Middletown, VA 22645
540-868-7237 • FAX 540-347-6215

March 15, 2024

Virginia College Partnership Laboratory School Committee
Virginia Department of Education (VDOE)

RE: Letter of support from Dr. Kelly A. Huff, Regional Director

Dear Selection Committee Member,

If the proposal submitted by Dr. Padmanabhan Seshaiyer, Professor and Director, George Mason University and Dr. Deborah Crawford, Supervisor of Mathematics & World Language, Frederick County Public Schools, entitled "***The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data and Computing,***" is selected for funding by the Virginia Department of Education (VDOE) for a **full** College Partnership Laboratory School, it is the intent of Mountain Vista Governor's School to collaborate with George Mason University and Frederick County Public Schools on the implementation of the proposed lab school.

Both Drs. Seshaiyer and Crawford have extensive experience and have served as the leaders in higher education and K-12, respectively, for the newly approved Virginia Board of Education High School Data Science Standards of Learning, Curriculum and Course for the Commonwealth of Virginia. They represent a strong leadership team for the Shenandoah Valley Rural Regional College Partnership Laboratory School for ***Data, Computing and applications***, and have rich experiences in developing and managing programs with a strong record in promoting research and innovation at all levels. I am pleased to note that the proposed Lab School will build on four years of successful partnership between George Mason University and Frederick County Public Schools through the VDOE Advancing Computer Science Education grants for the Shenandoah Valley that has already positively impacted hundreds of students and teachers. The program was also recognized in 2023 as a "Program that Works" by the Virginia Math and Science Coalition for both students and teachers.

We are excited to partner with them to create this College Partnership Laboratory School that will serve hundreds of students and teachers from this region that includes ***rural and rural fringe*** school districts in the Shenandoah Valley. I strongly support this proposal and provide my assurances that we will support the project throughout its implementation. Please let me know if you have any questions.

Sincerely,

Kelly A. Huff
Regional Director

March 27, 2024

Virginia College Partnership Laboratory School Committee
Virginia Department of Education (VDOE)

RE: Support letter from Dr. Sharon Johnson, CEO, Shenandoah Valley Workforce Development Board

Dear Selection Committee Member,

I am writing to express my endorsement for the GMU College Partnership Laboratory School proposal titled "***The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data and Computing***," submitted by Dr. Padmanabhan Seshaiyer, Professor and Director at George Mason University (GMU), in consideration for funding by the Virginia Department of Education (VDOE) for a full College Partnership Laboratory School. If the grant is secured, it is my intention to work closely with Dr. Seshaiyer and George Mason University throughout the implementation of the laboratory school.

The Shenandoah Valley Workforce Development Board, Inc. (SVWDB) was established in 2000 to provide oversight and administration of the Workforce Innovation and Opportunity Act (WIOA) in the Shenandoah Valley. The WIOA guides the delivery of workforce development programs for adults, dislocated workers and youth with barriers to employment, with the intent of establishing and maintaining an effective network of resources for businesses and job seekers. Our regional board is one of 14 workforce boards throughout Virginia. The SVWDB serves 16 localities including the cities of Buena Vista, Harrisonburg, Lexington, Staunton, Waynesboro and Winchester, and the counties of Augusta, Bath, Clarke, Frederick, Highland, Page, Rockbridge, Rockingham, Shenandoah and Warren.

The SVWDB acts as a catalyst to provide seamless services among various workforce programs and provides community leadership around workforce issues. The proposed lab school, if funded, can open doors for hundreds of students from the rural and rural fringe school districts in the Shenandoah Valley through the proposed workforce elective courses leading to opportunities for pre-apprenticeship, registered apprenticeship, work experiences, on-the job training and credentialing opportunities. I am especially interested to collaborate with Dr. Seshaiyer from GMU and the leadership from the Shenandoah Valley that are a part of the lab school proposal to assist in coordinating apprenticeship and other work-based-learning training opportunities for opportunity youth with barriers as proposed in this lab school. I wholeheartedly endorse this proposal and commit to offering guidance and support throughout its execution. Please let me know if you have any questions.

Sincerely,

DocuSigned by:
Sharon Johnson
D5C7737DB4BA459...

Sharon Johnson, Ph.D.
Chief Executive Officer
Shenandoah Valley Workforce Development Board, Inc.

P.O. Box 869 • Harrisonburg, VA 22803-0869 • Telephone: 540.442.7134
Fax: 540.437.9808 • TDD: VA Relay Center 800.828.1120 or 711 • www.vcwvalley.com
This workforce product was created using 100% of federal U. S. Department of Labor Employment and Training Administration Workforce Innovation and Opportunity Act (WIOA) award made to Page County on behalf of the Shenandoah Valley Workforce Development Area by the pass-through entity, the Virginia Community College System. No costs of this product were financed by nongovernmental sources. The information contained herein does not necessarily reflect the official position of the U.S. Dept. of Labor.

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CONSULTING AND COACHING
Strategy Clarity and Activation

March 29, 2024

Virginia College Partnership Laboratory School Committee
Virginia Department of Education (VDOE)

RE: Letter of support from Dr. Yolanda Shields MBA, Ph.D.

Dear Selection Committee Member,

I am writing to show my support to the GMU College Partnership Laboratory School proposal submitted by Dr. Padmanabhan Seshaiyer, Professor and Director, George Mason University entitled "The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data and Computing," for funding by the Virginia Department of Education (VDOE) for a full College Partnership Laboratory School. If the grant is funded, I intend to collaborate with Dr. Seshaiyer from George Mason University during the implementation of the lab school.

I am the Founder, and CEO of Yesbuilds a global consulting company, and has over 20 years of experience as a business leader. I also have extensive experience in international workforce development and social entrepreneurship work in the continent of Africa and other emerging countries. I am a trainer in the areas of business startups, entrepreneur ecosystems, the gig economy, workforce development, public/private partnerships, human capital management, and social entrepreneurship. I was recently appointed by Commonwealth of Virginia Governor Glen Youngkin to the State Labor and Workforce Development board that Dr. Seshaiyer was also appointed to. My past workforce appointments include working with Tennessee Governor Bill Haslam and other Tennessee Governors where I have held the position of Vice-Chair of the Oversight Committee for over 15 years. I am currently a board member of the Shenandoah Valley Workforce Development Board, Shenandoah Community Capital Fund, and GO Virginia Region 8 Council member.

I am excited to partner with Dr. Seshaiyer, GMU, and this College Partnership Laboratory School that will serve hundreds of students and teachers from this region including rural and rural fringe school districts in the Shenandoah Valley. I strongly support this proposal and look forward to collaborating on the project throughout its implementation. Please let me know if you have any questions.

Sincerely,

Dr. Yolanda Shields

Dr. Yolanda Shields MBA, Ph.D.
Email: Yolanda@yesbuilds.com

Frederick County Public Schools

APPENDIX A
2024-25 School Calendar

2024	
*July 4	(Independence Day) (Admin. Offices and School Offices Closed)
*July 5, 12, 19, 26	(Summer Hours) (Admin. Offices and School Offices Closed)
July 29, 30, 31, August 1, 2	New Teacher Week
August 5, 6, 7, 8, 12, 13	Teacher Workdays
August 8	**Open House High School Students**
August 9	Division Professional Learning (All Staff)
August 12	**Open House Middle School Students**
August 13	**Open House Elementary School Students**
August 14	**TRANSITION DAY**
August 15	**FIRST DAY OF SCHOOL FOR STUDENTS**
*August 30	NO SCHOOL (Labor Day Observed) (Admin. Offices and School Offices Closed)
*September 2	NO SCHOOL (Labor Day) (Admin. Offices and School Offices Closed)
September 23	NO SCHOOL Building Professional Learning (All Staff)
October 18	*End of First 9 Weeks*
October 21	NO SCHOOL Unencumbered Planning
October 29	Report Cards Issued
*November 4	NO SCHOOL (Admin. Offices and School Offices Closed)
*November 5	NO SCHOOL (Election Day) (Admin. Offices and School Offices Closed)
*November 27, 28, 29	NO SCHOOL (Thanksgiving) (Admin. Offices and School Offices Closed)
*December 23, 24, 25, 26, 27, 30	NO SCHOOL (Winter Break) (Admin. Offices and School Offices Closed)
*December 31	NO SCHOOL - (New Year's Eve/Day) (Admin. Offices and School Offices Closed)
2025	
*January 1	(New Year's Day) (Admin. Offices and School Offices Closed)
January 2	NO SCHOOL Unencumbered Planning
January 3	NO SCHOOL Division Professional Learning (All Staff)
January 3	*End of First Semester, End of Second 9 Weeks*
January 6	**SCHOOL REOPENS**
January 14	Report Cards Issued
*January 20	NO SCHOOL (Martin Luther King, Jr. Day) (Admin. Offices and School Offices Closed)
*February 14	NO SCHOOL (Admin. Offices and School Offices Closed)
*February 17	NO SCHOOL (Presidents' Day) (Admin. Offices and School Offices Closed)
March 3-7	Pre-K and Kindergarten Registration Week for 2025-26 School Year
March 6	*End of Third 9 Weeks*
March 7	NO SCHOOL Unencumbered Planning
March 10	NO SCHOOL Building Professional Learning (All Staff)
March 17	Report Cards Issued
April 14, 15, 16	NO SCHOOL (Spring Break) (All Buildings Closed to the Public/12-Month Report to Work)
*April 17, 18	NO SCHOOL (Spring Break) (Admin. Offices and School Offices Closed)
*May 2	NO SCHOOL (Apple Blossom) (Admin. Offices and School Offices Closed)
*May 26	NO SCHOOL (Memorial Day) (Admin. Offices and School Offices Closed)
May 27	Dowell J. Howard Center Graduation 6:30 p.m.
May 28	James Wood High School Graduation 7 p.m.
May 29	**LAST DAY OF SCHOOL FOR STUDENTS** **Early Dismissal** (HS 12:00 PM; MS 12:15 PM; ES 1:00 PM) *End of Second Semester, End of Fourth 9 Weeks*
May 29	Millbrook High School Graduation 6 p.m.
May 30	NO SCHOOL Teacher Workday
May 30	Sherando High School Graduation 7 p.m.
June 5	2025 Admin. Summer Training Meeting
June 9	Report Cards Issued
*June 6, 13, 20, 27	(Summer Hours) (Admin. Offices and School Offices Closed)
*June 19	(Juneteenth Observed) (Admin. Offices and School Offices Closed)

*Indicates Admin. Offices and School Offices Closed

Approved by School Board: December 12, 2023

The School Board reserves the right to change the calendar in relation to holiday observance and make-up days (see School Board policy). The 2024-25 school calendar has 175 student days and a fixed last day of school.

***Calendar subject to adjustment based on need to remain in compliance with VA Code: § 22.1-98. Reduction of state aid when length of school term below 180 days or 990 hours. (See below)
1. The length of every school's term in every school division shall be at least 180 teaching days or 990 teaching hours in any school year; and
2. If the length of the term of any school or the schools in a school division shall be less than 180 teaching days or 990 teaching hours in any school year, the amount paid by the Commonwealth from the Basic School Aid Fund shall, except as otherwise hereinafter provided or as otherwise provided by law, be reduced in the same proportion as the length of the school term has been reduced in any school or the schools in the school division from 180 teaching days or 990 teaching hours.

Appendix B

The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data Science, Computing and Applications (DCSA)

Background of the DSCA Lab School Governing Board

Dr. Fernando Miralles-Wilhelm is the Dean of the College of Science at George Mason University. He is a hydrologist and water resources engineer with research interests in modeling of surface and groundwater systems, climate-hydrology-vegetation interactions, remote sensing applied to hydrologic cycle processes and water quality, and modeling of the water-energy-food nexus. He has been a Principal Investigator in over $300M research sponsored by NASA, NOAA, NSF, USDA, USAID, the World Bank and other agencies, and has worked as a research and consultant in water resources projects in the Americas, Asia, Africa, and Europe for over 25 years. Prior to coming to Mason, he has served on the faculty at Northeastern University, the University of Miami, Florida International University, and the University of Maryland. He also spent 5 years as a civil servant at the Inter-American Development Bank in Washington DC. Fernando is a Fellow of the American Society of Civil Engineers (ASCE), and a Diplomate of the American Academy of Environmental Engineers and the American Academy of Water Resources Engineers. He is a registered Professional Engineer in the states of Massachusetts and Florida.

Dr. George C. Hummer began serving as Frederick County's Superintendent of Schools on January 30, 2023. He is a native of New Jersey who moved to Virginia in 1994. He graduated from Chancellor High School in Fredericksburg and received a bachelor of arts degree from Radford University in 2005. Dr. Hummer also holds a master's degree in educational leadership and special education from the University of Mary Washington as well as a doctorate in educational leadership from Virginia Commonwealth University. In 2015, Dr. Hummer was named the Supervisor of Student Services and Special Education for Stafford County Public Schools. Four years later, he became Stafford County Public Schools' Executive Director of Student Services and Special Education. In 2022, he was named that school division's Chief Student Support Services Officer. Dr. Hummer has been an adjunct professor of educational leadership and special education at the University of Mary Washington for the past three years and has been a featured speaker at several state meetings for the Virginia Department of Education.

Dr. Cody Edwards serves as the Senior Associate Dean for Faculty and Academic Affairs, College of Science; Executive Director, Smithsonian-Mason School of Conservation (SMSC) and the Associate Provost for a Sustainable Earth. His research interests include systematics, molecular phylogenetics, conservation genetics, and evolution in vertebrates with special interests given to mammalian systems. Current research projects include the ecology, evolution, and conservation of native rodents in the Galapagos Islands, with special interest in the role of introduced species (e.g. Rattus rattus, R. norvegicus, and Mus musculus) in the decline and extinction of native

rodents. Other projects examine hybrid zones between genetically distinct taxa, isolating mechanisms, and the dynamics of genetic introgression, applications of geometric morphometrics to studies of phylogeny and ontogeny of mammals, growth. Dr. Edwards is also involved with the utilization of natural history collections, especially those pertaining to mammals, for survey purposes and for establishing the distributions of mammalian species.

Dr. Juliette Myers is Director of Middle & Secondary Instructional Services at Frederick County Public Schools. Prior to this she has served as the Director of Curriculum and Instruction and a School Principal at Chesterfield County Public Schools. She also served for over 20 years as a mathematics teacher, assistant principal and a principal at Roanoke County Schools. She has done her doctoral work in Educational Leadership and Policy Studies. With a background in education and a passion for fostering student success, Dr. Myers is dedicated to providing quality education and creating a supportive learning environment for all students. Her leadership skills, coupled with her commitment to innovation and collaboration, have contributed to the growth and development of the school district under her guidance. She has also served as a Conference chair for VASCD annual conference.

Dr. Johanna Weiss serves as the Vice President of Academic Affairs at Laurel Ridge Community College. She has almost two decades of experience working in Virginia community colleges and deeply committed to creating, sustaining, and enhancing a college environment that promotes student access, success, and equity. In addition to having significant teaching experience, she is adept at leading college-wide initiatives related to guided pathways, curriculum restructuring, strategic course scheduling, integrated student support, and the onboarding of new students. She is also passionate about helping cultivate a work environment that promotes the success of and supports all of our community, including faculty, staff, and students.

Dr. Sharon Johnson is the CEO of the Shenandoah Valley Workforce Development Board and oversees 7 workforce initiatives with regional partnerships in 5 localities working with economic development, employers, community colleges, adult education, K-12, career pathways consortium, and the workforce investment system. She is a workforce development executive with extensive experience in human capital development including: workforce initiative design, implementation, and evaluation; workforce research and consulting; workforce development board executive leadership; and workforce policy advocacy, development, and implementation. She has always been a consensus builder to establish and enhance partnerships and coordinate diverse groups for the development and implementation of workforce solutions. She has also served as a Director, Regional Workforce Development where she collaboratively worked with regional partners in 11 localities to identify current and future workforce needs, developed training strategies and programs, marketed initiatives, implemented solutions, and managed programs.

Dr. Yolanda Shields is the CEO of Yes builds and is a global business adviser/strategist; an author; and trainer in the areas of business startups, human capital management and entrepreneurship.

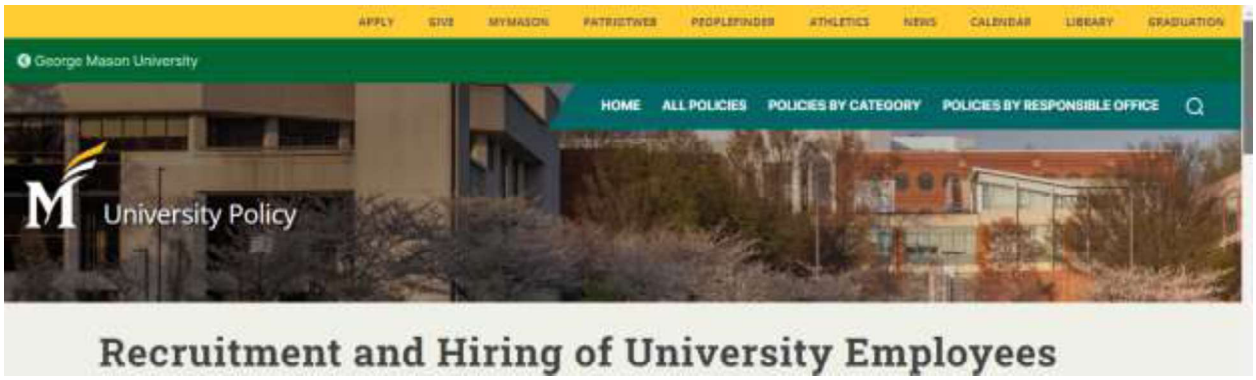
She is currently a board member of the Shenandoah Valley Workforce Development Board and the Shenandoah Community Capital Fund, as well as a GO Virginia Region 8 Council member. She was appointed by Tennessee Governor Bill Haslam and past TN Governors to the Labor and Workforce Development Board for the State of Tennessee and Vice-Chair of the Oversight Committee. She has assisted over 20 corporations in the areas of fund development, talent development, human resources management, strategic planning, executive coaching/training, business operations, celebrity charity management, and public/private partnerships. She is also currently a board member of the Shenandoah Valley Workforce Development Board a mentor

Along with these administrators, the board will also include one high school teacher and two parent members who will be selected during the planning grant process. We hope to engage Mr. Brian Thomas from James Wood High School who has worked with Dr. Seshaiyer and Dr. Crawford on the VDOE Advancing Computer Science Education grant activities that supported a micropilot lab school that engaged over 30 high school students who worked on using data and computing to solve real-world engineering challenges.

Appendix C

The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data Science, Computing and Applications (DCSA)

GMU Hiring Policies and Procedures



I. SCOPE

This policy applies to the recruitment and hiring of all George Mason University employees and faculty at all George Mason University locations.

II. POLICY STATEMENT

George Mason University is committed to fostering a respectful environment that values diversity and complies with its non-discrimination policy. Mason uses standardized procedures for recruitment and hiring to ensure the hiring of the most qualified candidates and to promote diversity and equal employment opportunities as mandated by federal laws and regulations and state and University policies and procedures.

It is the policy of George Mason University to provide reasonable accommodations for qualified persons with disabilities who are employees or applicants for employment. (University Policy 1203). Applicants should be notified of this policy when an interview is scheduled and confirmed, and provided information about how to request an accommodation, if needed. Employment opportunities will not be denied to anyone because of the need to make reasonable accommodations for a person's disability.

Criminal, motor vehicle, and financial background checks along with medical and/or drug screening may be required prior to employment at the university. All pre-employment screening is based on the nature of the positions and the tasks or circumstances related to specific university positions. All requirements must be met as a condition of employment.

III. RESPONSIBLE PARTIES

A. Human Resources and Payroll oversees the management and administration of the recruitment process. For those positions which require advertisement, the department will ensure that the recruitment as well as retention of related employment records is in compliance with state and federal laws. The department also coordinates outside web and print advertising, encouraging the use of vendors which cater to diverse populations.

Human Resources and Payroll will ensure the recruiting process is effectively and efficiently managed using tools such as the online university applicant tracking system and the related procedures for hiring described in Procedures for Policy 2224. In this regard, Human Resources and Payroll will maintain the online university applicant tracking system used for recruitment. Human Resources and Payroll will work with Diversity, Equity, and Inclusion (DEI) to train users of the system and members of the selection process.

Note: Positions posted via university applicant tracking system are automatically forwarded to the Department of Human Resource Management's state recruitment system in accordance with the Virginia Personnel Act.

B. Diversity, Equity, and Inclusion (DEI) will monitor hiring practices relative to equal employment opportunity and approve the selection processes for faculty positions. The department will assist Human Resources and Payroll with designing and planning relevant training and targeted recruitment resources. DEI will work with hiring departments to provide reasonable accommodations throughout the selection process. When needed, the department will define underutilized job classifications and work with hiring departments to help diversify candidate pools.

DEI will investigate complaints of discrimination if an applicant or candidate alleges discrimination in violation of Mason's Nondiscrimination Policy.

C. The Office of the Provost is responsible for approving the selection processes in academic units. The Office of the Provost will provide information on required procedures and templates for use by the academic units. Vice Presidents are responsible for approving the selection processes for non-academic units within their purview and are responsible for following procedures and templates as described by The Office of the Provost.

D. The hiring departments' vice president, departmental leadership, or designated authority is responsible for the proper implementation of recruitment described in Procedures for Policy 2224.

IV. COMPLIANCE

Inquiries about the recruitment and hiring policy or procedures should be directed to Human Resources and Payroll Department, 4400 University Drive, MSN 3C3, Fairfax, VA 22030-4444, (703) 993-2600. Questions may also be referred to Diversity, Equity, and Inclusion, 4400 University Drive, Mason Hall D105 MSN 2C2, Fairfax, VA 22030-4444, (703) 993-8730, TDY: (888) 205-4130.

V. EFFECTIVE DATE AND APPROVAL

The policies herein are effective immediately. This Administrative Policy shall be reviewed and revised, if necessary, annually to become effective at the beginning of the University's fiscal year, unless otherwise noted.

Appendix D

The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data Science, Computing and Applications (DCSA)

Student Handbook

Frederick County Public Schools

This handbook sets forth the school division rules and expectations for student conduct in our schools, as well as other helpful information necessary for students to reach the ultimate goal of high school graduation. All the following forms can be found at the following website which is regularly updated: https://www.frederickcountyschoolsva.net/domain/160

- **Acceptable Computer System Use (323R)**
- **Access to Education**
- **Administration of Medications to Students (437P)**
- **Administration of Surveys and Questionnaires (619P)**
- **Character Education**
- **Child Abuse and Neglect Reporting (508P)**
- **Code of Student Conduct (402R-A)**
- **Compulsory Attendance/Exclusions and Exemptions from School Attendance (405P)**
- **Discipline for Actions Occurring Outside of School**
- **Disciplining Students with Disabilities (402R-B)**
- **Disciplining Students with Disabilities for Infliction of Serious Bodily Harm (402R-C)**
- **Disposition of Records**
- **Eating Disorders**
- **Electronic Mail, Social Media and Networking (567R-B)**

- Emergency Procedures
    - 221P - School Crisis, Emergency Management and Medical Emergency Response Plan
    - 221R - School Crisis and Emergency Management Plan
    - 223P - Safety Drills
    - School Emergency Guide
- Equal Education Opportunity/Non-Discrimination (403P)
- Evaluation, Grade Assignment and Reporting to Parents
    - 316P - Evaluation and Grade Assignment
    - 316R-A - Evaluation and Grade Assignment
    - 316R-B - Reporting to Parents
- FCPS Rapid Communication System
- Health Screenings
- Homeless Students (405R-B)
- Homeless Transportation
- Homework (314P)
- Human Rights (218P)
- Insurance for Injuries
- Loss, Theft or Damage of Personal Property
- Make-Up Work, Late Arrival/Early Release From School (410R)
- Notice of Non-Discrimination
- Offsite Instruction and Virtual Courses (310P)
- Online Payment System
- Parental Responsibility and Involvement Requirements
    - §22.1-279.3. Parental responsibility and involvement requirements (Excerpted from the Code of Virginia (1950), as amended)
    - 617P - Parental and Family Engagement
    - 627P - Parental Rights and Responsibilities

- Police Drug Dogs
- Policy Manual
- Portable Communication Devices (219R)
- Sex Offender and Crimes Against Minors Registry Information (226P)
- Prohibition Against Harassment and Retaliation (429P)
- Prosecution of Juveniles as Adults
- Remedial Instruction (326P)
- Returned Checks
- School Bus Safety and Driver Responsibilities (702R-A)
- School Guidance and Counseling Programs (324P)
- School Nutrition Services Accounts
- Student Absences, Excuses, Dismissals (410P)
- Student Fees, Charges and Collections (729P)
- Student Fee Waiver or Reduction Form (729P - Appendix)
- Student Scholastic Records and Transcripts
    - 416P - Student Scholastic Records
    - 416R-A - Student Scholastic Records
    - 416R-B - Student Transcripts
- Student Search and Seizure (439P)
- Title I
- Video Surveillance
- Work Permits/Employment Certificates

- **Parent Form**

FCPS requires students and parents to sign and return the form to acknowledge receipt of the information and to agree to abide by FCPS policies.

- Handbook Signature Form
- Handbook Signature Form - Spanish

Appendix E

The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data Science, Computing and Applications (DCSA)

2023-24 School Emergency Guide

- **School Safety and Security Information**
  Frederick County Public Schools is committed to providing and maintaining a safe environment for students and staff. The school division works collaboratively with many agencies including the Frederick County Sheriff's Office, Fire and Rescue Department and Virginia Department of Health to ensure that all schools are safe.
  All Frederick County Public Schools have established school crisis, emergency management and medical emergency response plans that are reviewed annually. In addition, safety audits are conducted at every school twice each year and safety/security enhancements are made as a result of the safety audit process. Each school also has established a state-mandated threat assessment team which provides guidance regarding the recognition of behavior that may represent a threat and the appropriate response to such behavior. School emergency drills are held periodically throughout the school year to help students and staff practice the appropriate actions to take in the event of an emergency.
  School security officers serve James Wood, Millbrook and Sherando high schools; the Dowell J. Howard Center and NREP/Senseny Road School. In addition, the Frederick County Sheriff's Office assigns a school resource officer (SRO) to each elementary, middle and high school as well as the Dowell J. Howard Center and NREP/Senseny Road School. The SRO at James Wood Middle School also supports the FCPS Administration Building. The SROs are supported by patrol deputies, as needed.
  Safety and Security Tools
  Frederick County Public Schools uses a variety of tools to promote safety and security. Information about a number of additional school security measures is not shared publicly, which is a safety measure in itself.
  Rapid Communication System
  The Frederick County Public Schools' Rapid Communication System is used to contact families via telephone, e-mail and text message to notify them of emergencies that may cause a school to evacuate, relocate or go on lockdown. The system is used to inform

families when school schedules are impacted by inclement weather. Individual schools may use the system to communicate information to their school community.

Secure Entrances

All schools and the Frederick County Public Schools Administration Building are equipped with secure entrances. The system requires visitors to utilize an intercom system to identify themselves and the reason for their visit prior to being granted entry into a secure vestibule for additional screening before being granted access to the building.

Raptor Visitor Management System

All schools and the Frederick County Public Schools Administration Building are equipped with the Raptor Visitor Management System. Everyone visiting a school facility is required to present a valid, government-issued ID which will be scanned through the system and checked against registered sex offender and other databases that may include custody orders and information on individuals prohibited from visiting school grounds. Those who are cleared by the system will be issued a visitor badge bearing their name and photo.

Raptor EM Alert

Staff working at all schools and the Frederick County Public Schools Administration Building utilize Raptor EM Alert, a mobile panic button system. The system sends instantaneous emergency notifications to administrators, staff members and first responder agencies to ensure rapid response and real-time coordination when addressing school issues and emergency situations.

How You Can Help Keep Schools Safe

Keeping schools safe requires families, students, staff and members of the community to work together. Here are some ways you can help keep our schools safe and secure.

- Work with your student to map out a safe way for them to walk to school or the bus stop. Avoid busy roads and intersections.
- Encourage students to walk to school or the bus stop with other students and to wait at the bus stop with other students.
- Talk to your student about their day. If they are having problems, consult with school administrators.
- If you suspect your student is being bullied, contact the school principal.
- Report any suspicious activity noted around schools and/or bus stops to the school principal.
- Anonymously report any concerns about school safety to SpeakUp by calling or texting 540-546-0116 or sending an e-mail to speakup@fcpsk12.net.
- Remind students who drive to school to make sure all windows on their vehicle are closed and the doors are locked.
- Encourage students not to leave valuable items in plain view inside a vehicle.
- Remind students to retain possession of their personal property. Try to limit others borrowing valuable items.
- Do not leave personal property unattended.
- Properly secure all personal property, particularly electronics such as cell phones.

What To Do During a School Emergency

1. Do not go to the school or scene of an emergency unless you are asked to do so. Your presence may interfere with emergency response.

2. Get accurate information and instructions.
    - Look for messages from the FCPS Rapid Communication System. These messages will be sent via home phone, cell phone, e-mail and text message.
    - Visit **www.FrederickCountySchoolsVA.net** for up-to-date information and instructions.
    - Follow the FCPS Facebook page at @frederickcountypublicschools.

3. Do not listen to or spread rumors. The school division will provide frequent updates in the event of an emergency. The FCPS website, the FCPS Rapid Communication System and the FCPS Facebook page are the best sources for accurate information in the event of an emergency.

4. Do not respond to a student's request to leave school. Tell the student to remain calm and follow all instructions from school officials.

- **Contact Information**

  Frederick County Public Schools
  540-662-3888

  Frederick County Sheriff's Office
  540-662-6168

  Frederick County Fire and Rescue Department
  540-665-5618

221P - School Crisis, Emergency Management and Medical Emergency Response Plan

Last Updated Date: 06/20/2023
Adoption Date: 08/19/2013
Revision History: 06/17/2014, 04/17/2018, 06/18/2019, 06/16/2020, 06/21/2022,06/20/2023
Related Policies: 223P435P

Each school shall develop a written school crisis, emergency management and medical emergency response plan as defined below. The School Board includes the chief law enforcement officer, the fire chief, the chief of the emergency medical services agency, the executive director of the regional emergency medical services council and the emergency management official of the locality, or their designees, in the development of such plans. The Board, the chief law enforcement officer, the fire chief, the chief of the emergency medical services agency, the executive director of the regional emergency medical services council and the emergency management official of the locality, or their designees annually review each school's plan. The Department of Education and the Virginia Center for School and Campus Safety will provide technical assistance to the school division in the development of the plans. In developing these plans, schools may consult the model school crisis, emergency management and medical response plan developed by the Board of Education and the Virginia Center for School and Campus Safety.

The School Board designates the Assistant Superintendent for Administration as emergency manager.

Each school shall annually conduct school safety audits as defined below in collaboration with the chief law enforcement officer of the locality or with that officer's designee. The results of such school safety audits shall be made public within 90 days of completion. The School Board may withhold or limit the release of any security plans, walk-through checklists and specific vulnerability assessment components as provided in the Virginia Freedom of Information Act, Va. Code § 2.2-3705.2. The completed walk-through checklist will be made available upon request to the chief law enforcement officer of the locality or the officer's designee. Each school shall maintain a copy of the school's safety audit report, which may exclude such security plans, walk-through checklists and vulnerability assessment components, within the office of the school principal and shall make a copy of such report available for review upon written request.
Each school shall submit a copy of its school safety audit to the Superintendent. The Superintendent shall collate and submit all such school safety audits, in the prescribed format and manner of submission, to the Virginia Center for School and Campus Safety (VCSCS) and shall make available upon request to the chief law enforcement officer of the locality the results of such audits for the officer's review and recommendation. The superintendent includes the designation of the division safety official, which includes a current mailing address, a current working daytime phone number, a current functional email address, and a current functional fax number, with the school safety audits when they are submitted to VCSCS.

The Superintendent shall establish a school safety audit committee to include, if available, representatives of parents, teachers, local law-enforcement, emergency services agencies, local community services boards, and judicial and public safety personnel. The school safety audit committee reviews the completed school safety audits and submits any plans, as needed, for improving school safety to the Superintendent for submission to the School Board.

"School crisis, emergency management and medical emergency response plan" means the essential procedures, operations, and assignments required to prevent, manage, and respond to a critical event or emergency, including natural disasters involving fire, flood, tornadoes, or other severe weather; loss or disruption of power, water, communications or shelter; bus or other accidents; medical emergencies, including cardiac arrest and other life threatening medical emergencies; student or staff member deaths; explosions, bomb threats; gun, knife or other weapons threats; spills or exposures to hazardous substances; the presence of unauthorized persons or trespassers; the loss, disappearance or kidnapping of a student; hostage situations; violence on school property or at school activities; incidents involving acts of terrorism; and other incidents posing a serious threat of harm to students, personnel, or facilities. The plan shall include a provision that the Department of Criminal Justice Services and the Virginia Criminal Injuries Compensation Fund shall be contacted immediately to deploy assistance in the event of an emergency as defined in the emergency response plan when there are victims as defined in Va. Code § 19.2-11.01, as well as current contact information for both.

"School safety audit" means a written assessment of the safety conditions in each public school to (1) identify and, if necessary, develop solutions for physical safety concerns, including building security issues and (2) identify and evaluate any patterns of student safety concerns occurring on school property or at school-sponsored events. Solutions and responses shall include recommendations for structural adjustments, changes in school safety procedures, and revision to the School Board's standards for student conduct. The audit is consistent with a list of items identified by the Virginia Center of School and Campus Safety to be reviewed and evaluated. As part of each audit, the School Board creates a detailed and accurate floor plan for each school building or certifies that the existing floor plan is sufficiently detailed and accurate.
Each school shall maintain records of regular safety, health and fire inspections that have been conducted and certified by local health and fire departments. The frequency of such inspections shall be determined by the School Board in consultation with the local health and fire departments. In addition, the school administration shall equip all exit doors with panic hardware as required by the Uniform Statewide Building Code.
Each school shall have contingency plans for emergencies that include staff certified in cardiopulmonary resuscitation (CPR), the Heimlich maneuver, and emergency first aid. In addition, the school administration shall ensure that the school has:

1. Written procedures to follow in emergencies such as fire, injury, illness, allergic reactions and violent or threatening behavior. The procedures include Policy 437P, Students- Administration of Medications to Students and Regulation 437R, Students-

Administration of Epinephrine. The plan shall be outlined in the student handbook and discussed with staff and students during the first week of each school year;
2. Space for the proper care of students who become ill; and
3. A written procedure, in accordance with guidelines established by the School Board for responding to violent, disruptive or illegal activities by students on school property or during a school sponsored activity; and
4. Written procedures to follow for the safe evacuation of persons with special physical, medical or language needs who may need assistance to exit a facility.

Legal Reference(s):
Code of Virginia, 1950, as amended, Section(s) 2.2-3705.2, 22.1-279.8.
8 VAC 20-131-260.
Adopted: August 19, 2013
Amended: June 17, 2014
Amended: April 17, 2018
Amended: June 18, 2019
Amended: June 16, 2020
Amended: June 21, 2022
Amended: June 20, 2023

Appendix F

The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data Science, Computing and Applications (DCSA)

Illustrative Budget

Figure A: Illustrative Itemized Budget Spreadsheet

$ in 000's	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Total	Comments
Lab School Operating Costs								
Personnel	40	526	527	528	528	529	2,678	provide details separately
Non-personnel Expenses	16	173	172	172	172	172	877	provide details separately
Staff development	-	31	31	31	31	31	155	provide details separately
Equip/Tech/Furniture	738	130	130	129	129	128	1,384	provide details separately
Admin Fee	206	190	190	190	190	190	1,156	provide details separately
Total Lab School Operating Costs	**1,000**	**1,050**	**1,050**	**1,050**	**1,050**	**1,050**	**6,250**	[A]
Annual Enrollment (# of pupils)		150	150	150	150	150	150	*based on experienced ramps*
Cost per pupil ($)		$7,000	$7,000	$7,000	$7,000	$7,000	$8,333	
Estimated Lab School Funding								
Planning Grant	200						200	per lab school application
Start-up	1,000						1,000	per lab school application
Operating		450	450	450	450		1,800	per lab school application
Subtotal College Partnership Lab School Fund	**1,200**	**450**	**450**	**450**	**450**	**-**	**3,000**	
Outside Funding								
Local share			50	75	150	200	475	illustrative
Grant funding			-	250	500	1,000	1,750	illustrative, provide details
Congressional earmark						500	500	
Philanthropic funding			-	25	50	100	175	illustrative, provide details
Higher education institution support				25	50	100	175	illustrative, provide details
Business & industry partner contributions				25	50	100	175	illustrative, provide details
Fundraising and development				25	50	100	175	illustrative, provide details
Subtotal Other Funding	**-**	**-**	**50**	**425**	**850**	**2,100**	**3,425**	
Total Funding	**1,200**	**450**	**500**	**875**	**1,300**	**2,100**	**6,425**	[B]
					Funding Sustainability?		**Yes**	Funding is greater than costs

A revenue projection along with detailed budget justification for each year is provided within the application.

Appendix G

The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data Science, Computing and Applications (DCSA)

Conflict of Interest Policy

I. Scope

This policy applies to all faculty governed by the Faculty Handbook, and implements Faculty Handbook section 2.10.7, Outside Employment and/or Business Interests. In addition, section III.B. of this Policy applies to all Investigators on externally sponsored research. This policy shall be read in conjunction with University Policy 4001: Conflict of Interest, which addresses interests and activities regulated by Federal and Commonwealth laws, including those pertaining to externally sponsored research. Outside Activities and commitments of Postdoctoral Fellows, and of Administrative and Professional Faculty, are governed by University Policy 4018: Postdoctoral Research Fellows, and University Policy 2227: Outside Employment, respectively.

II. Policy Statement

A faculty member's primary professional commitment is to their teaching, research, service, and administrative responsibilities at the University. Outside Professional Activities that interfere with a faculty member's, or an Investigator's, professional obligations to the University represent a conflict of commitment. A conflict of commitment is a situation in which an individual accepts or incurs

conflicting obligations between or among the University and other entities. Any Outside Professional Activity a faculty member performs, or commits to perform, at or for an entity other than the University has the potential to create a conflict of commitment. The potential for conflict of commitment depends both upon a faculty member's obligations to the University, and upon the nature and extent of the faculty member's obligations to other entities. Conflicts of commitment also can intersect with regulatory requirements pertaining to externally sponsored research. Faculty members must report to their Chair (or Local Unit Administrator) any activity that is likely to create a conflict of commitment as set forth in this policy. This requirement applies regardless of whether any compensation is received for the outside activity or commitment.

For Investigators on sponsored research projects, Outside Activities must be disclosed as required by federal regulations.

III. Definitions

Annual Certification: a report made at least once every twelve months to Mason's online disclosure system of Outside Professional Activities (Faculty) or Outside Activities (Investigator).

Investigator: means an investigator on an externally funded research project, as defined in the Externally Funded Research section of Policy 4001, Conflict of Interests.

Outside Activities: means an activity that an individual performs or commits to perform at or for an entity other than Mason.

Outside Professional Activities: means Outside Activities that are related to one's professional expertise.

IV. Compliance

Disclosure of Outside Activities shall be made via the University's online disclosure system. Failure to comply with this policy will result in discipline consistent with the nature and circumstances of the non-compliance.

A. Outside Professional Activities for Faculty Members

Faculty members must complete an Annual Certification of their Outside Professional Activities. Certification is made using the University's online disclosure system. Deans, in consultation with Local Academic Units (LAUs), will

specify College-level Procedures that implement the Prompt Disclosure, Prior Approval, and Annual Certification requirements to fit the norms and expectations of their units. See the College Implementation Section of the Policy Procedures.

1. **Prompt Disclosure**
   Outside Professional Activities with significant potential to create a conflict of commitment, such as those that require a significant professional commitment, require additional disclosure beyond what is expected in the annual faculty review process. Engagement in such Outside Professional Activities is limited to the equivalent of one day per week, and disclosure must be provided to the faculty member's Chair (or Local Unit Administrator) within 30 days. Examples of such Outside Professional Activities include, but are not limited to:

   a. Consulting or testifying as an expert or professional witness;

   b. Serving on a board of directors outside of the University;

   c. Providing or presenting a workshop for industry (for-profit organizations); and

   d. Providing outside consulting services or referrals or engaging in professional practice as an individual or through a single-member professional corporation or sole proprietorship; However, if such activity constitutes a founding or co-founding role or an executive or managerial position with a company, it requires Prior Approval, see below.

2. **Prior Approval**
   Outside Professional Activities that are especially likely to create conflicts, or that come under specific Federal or Commonwealth requirements, require prior approval from the responsible Dean. Examples of such Outside Professional Activities include, but are not limited to:

   a. Performing sponsored research, or administration of a grant or award, for an educational institution, trust, organization, government agency, foundation, or other entity outside of the University. Such arrangements, when undertaken as a Mason employee on a

subcontract or subaward through the Office of Sponsored Programs (OSP), are a matter of faculty workload and are not outside professional activities.

b. Affiliations or appointments involving foreign entities or countries, including sponsored research, and including activities that would not otherwise need to be disclosed;

c. Consulting or employment outside of the University that exceeds the one-day-per-week limit;

d. Assuming a founding or a co-founding role of a company or otherwise outside of the University;

e. Assuming an executive or managerial position outside of the University; or

f. Outside activities, including activities for professional organizations, in which a faculty member uses, or commits to using, university facilities, equipment, supplies, or computer time.

Reasons a Dean may deny a request for approval include, but are not limited to:

-
    - interferes with the performance of regular employment;
    - competes with coursework offered by the University;
    - competes with services offered by the employee's unit, such as providing workshops to industry (for-profit organizations);
    - competes with research conducted at the University.

A Dean's decision to deny a request for approval may be appealed to the Provost. The Provost's decision regarding any such appeal is final.

Although faculty members are state employees, they consult as private individuals, and the University is not responsible for their work outside the University. When engaging in any Outside Professional Activity as described in the above sections, faculty members should take care to preserve the distinction

between projects undertaken through individual initiatives and projects sponsored or officially sanctioned by the University.

B. Externally Sponsored Research

This Section applies to all Investigators. In addition to the Federal disclosure conflict of interest requirements implemented in University Policy 4001: Conflict of Interest, Investigators who apply for any externally sponsored research also must disclose Outside Activities that have a significant potential to create a conflict of commitment. Examples of such activities include, but are not limited to:

1. Teaching at an educational institution outside the University;
2. Performing research or administration of a grant or award at an educational institution, trust, organization, government agency, foundation, or other entity outside of the University;
3. Activities, affiliations, or appointments with foreign countries or entities, including externally sponsored research, and including activities, such as those within the course and scope of University employment, that would not otherwise need to be disclosed. Such activities are subject to Federal regulations;
4. Consulting or employment outside of the University;
5. Assuming a founding or a co-founding role or an executive or managerial position of a company or otherwise outside of the University;
6. Consulting or testifying as an expert or professional witness;
7. Providing outside consulting services or referrals or engaging in professional practice as an individual or through a single-member professional corporation or sole proprietorship.
8. Serving on a board of directors outside of the University; and
9. Providing or presenting a workshop for industry (for-profit organizations);

In addition to the above, all Investigators must complete an annual certification that their prior disclosures are accurate and up to date. Certification is made using the University's online disclosure system.

V. Dates

A. Effective Date:
This policy will become effective on September 1, 2023.

B. Date of Most Recent Review:
N/A.

VI. Timetable for Review

This policy, and any related procedures, shall be reviewed every two years.

VII. Signatures

Approved:
_____/S_____
Executive Vice President for Finance and Administration

Approved:
____/S_____
Provost and Executive Vice President

Date approved: May 03, 2023

Page last updated: January 31, 2024

Appendix H

The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data Science, Computing and Applications (DCSA)

Timeline

Phase/Semester Responsible Party	Task/ Activity	Responsible Party
Sept 2023 - Dec 2023 **Dr. Seshaiyer and Dr. Crawford**	• Planning Grant Application • DS Stakeholder **VSTE DS Summit 1** Dec. 3 • Summarize findings • Meeting with Laurel Ridge CC 12/13 • Meeting with partners 12/14 • Meeting with GMU 12/13 • Met with summit **Advisory Board** • Monthly Shenandoah Valley Partnership Monthly Meeting	• Dr. Seshaiyer (GMU) • Dr. Crawford (Frederick County)

Jan 2024 – April 2024	• Planning Grant Start Date
	• Project Team Formation
	• HS Student Research Class Begins (SU - Data 195) 2 cr.
	• Problem Statements and Feedback
	• SITE Visit to Laurel Ridge
	• SITE Visit to Dowell J Howard, Frederick
	• SITE Visit to SMSC - GMU
	• Focus Interviews and Stakeholder Discussions
	  ○ High School DS/CS teachers
	  ○ GMU Leadership
	  ○ Laurel Ridge Leadership
	  ○ Frederick County Leadership
	• Monthly Shenandoah Valley Partnership Monthly Meeting
	• **Lab School Application** to VDOE
		• Dr. Seshaiyer (GMU)
		• Dr. Crawford (Frederick County)

April 2024 – May 2024	• Data Science Curriculum Development Teacher summit (4/19 – 4/20) • Implementing suggestions with revisions and feedback • HS Student Research Class Begins (CoS - 120) 2 cr • Monthly Shenandoah Valley Partnership Monthly Meeting	• Dr. Seshaiyer (GMU) • Dr. Crawford (Frederick County)

May 2024 – June 2024	• First Review in front of Standing Committee: before the Board (May 6, 2024) • Curriculum Development with Teacher Leads • Presentation to VDOE • Public Comment (10 Days) • Second Standing Committee Review (with public Comments) • Vote for sending application to the Board	• Dr. Seshaiyer (GMU) • Dr. Crawford (Frederick County)
June 2024 – July 2024	• DSCA Governing board creation • Family/student advisory council forms Governing board • Advertise DSCA Hub Lab • Data Science Institute (June 25-26) • Director and System Admin positions • Lab school contract in place • Engage design contractor for renovation of Hub Space at Dowell J Howard • Governing board quarterly meeting • Monthly Shenandoah Valley Partnership Monthly Meeting	• Governing Board • DSCA Planning Committee
Aug 2024	• Year 1: Soft launch of DSCA Data Hub with 10th grade students. • Career Investigations • SMSC Field Experiences • HS Student Research Class Begins (CoS - 120) 2 cr • Monthly Shenandoah Valley Partnership Monthly Meeting	• Governing Board • DSCA Planning Committee
Fall 2024	• Creation of research; apprenticeship; or certification pathways • Provide Continuous Teacher Professional Learning on DS • Renovation of the Data Hub • HS Student Research Class Begins (CoS - 120) 2 cr • Laurel Ridge Career Investigations Class • GMU SMSC Super Data Saturdays	• Governing Board • DSCA Planning Committee
Spring 2025	• Hire the staff for the Lab School • Continue creation of research; apprenticeship; or certification pathways • Provide Continuous Teacher Professional	• Governing Board

	Learning on DS ● Continue renovation of the Data Hub ● HS Student Research Class Begins (CoS - 120) 2 cr ● Laurel Ridge Career Investigations Class ● GMU SMSC Super Data Saturdays	DSCA Planning Committee
Fall 2025	● Shenandoah Valley Rural Regional Laboratory School for Data and Computing **Official Opens**	● Governing Board DSCA Planning Committee

Appendix I

The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data Science, Computing and Applications (DCSA)

Minors on Campus Policy

I. SCOPE

This policy applies to all George Mason University employees, students, volunteers, independent contractors, and external organizations that interact with Minors in University-run programs or activities, or on University-owned or controlled property.

This policy does not apply to general public events where parents or guardians are invited or expected to provide supervision of minors, or to events where parents or guardians are explicitly required to accompany their children.

II. DEFINITIONS

Minor – for the purpose of this policy, means a person under 18 years of age who is not: (a) in the custodial care of their parent of guardian, (b) admitted and matriculated as a student at the University; (c) employed by or volunteering at the University; or (d) participating in activities that have been given Institutional Review Board approval.

Program Staff– means individuals who interact with, supervise, chaperone, or otherwise oversee Minors in Program activities. This includes but is not limited to employees, volunteers, students, and independent contractors.

Program – means an event or activity attended by Minors offered by the University, or by non-University groups on University-owned or controlled property, during which Program Staff may be in custodial care of a Minor. This includes, but is not limited to workshops, services, camps, conferences, seminars, campus visits, and similar activities.

Program Administrator – means the person(s) who has primary and direct operational responsibility for managing a Program.

Abuse or Neglect of Minors – has the same meaning as defined in the Code of Virginia, §63.2-100.

Definitions of Internal Event and External Event have the same meaning as stated by Policy 1103, Space Utilization and Scheduling.

III. POLICY STATEMENT

A. Reporting Suspected Abuse or Neglect

All University employees and Program Staff must immediately report suspected instances of abuse or neglect of any person under the age of 18 to the Virginia Child Abuse and Neglect Hotline, (800) 552-7096, as well as to their supervisor and/or University Police. Failure to report may expose individuals to criminal sanctions under § 63.2-1509 of the Code of Virginia.

B. Program Staff Code of Conduct and Training

Program Staff are required to comply with all applicable laws, University Policy, and guidelines listed on the Business Services Administration's Shop Mason website. Program Staff younger than 18 may be employed or volunteer if all State and Federal laws are followed, however they must not have sole or unsupervised custodial care of a Minor.

Program Administrators must ensure that Program Staff who may be in custodial care of Minors have undergone training prior to their employment/volunteering in the program. This training should be completed at least annually and may differ based on role. The Program Administrator must keep records of training completion.

Programs offered by external organizations must sign a contract with the University indicating that Program Staff who will be interacting with Minors (and anyone who supervises such individuals) have received training.

Lists of required and suggested training will provided by Business Services Administration via Blackboard.

C. Criminal Background Checks

Program Administrators must ensure that Program Staff have cleared a criminal background check prior to participating in Programs. A Human Resources Program Coordinator Form listing all staff must be submitted for each Program.

For University employees who work with Minors, see University Policy 2221, Background Investigations.

External organizations that operate Programs on campus must ensure that their Program Staff have cleared criminal background checks that meet University standards, [including a review of the employee's records to include social security number search, criminal records (any misdemeanor convictions and/or felony convictions), the Sex Offender Registry, and the Office of Foreign Assets Control of The US Department of Treasury (OFAC) Prohibited Parties Search] and must submit a signed contract to that effect before being allowed to use University Facilities. External organizations must also provide insurance in the amounts listed at risk.gmu.edu.

D. Fiscal Controls

All Program Administrators must be knowledgeable of and adhere to four university policies that address the handling of university funds. These policies are referenced above and include Policy 2103 Internal Controls, Policy 2105 Cash Handling, Policy 2110 Credit and Debit Card Security and, Policy 2114 Reconciling Departmental and Sponsored Fund Accounting Records. Documentation supporting each camp's financial activities, including the reconciliations, must be retained according to the University's records retention guidelines and are subject to audit by university or state auditors.

IV. COMPLIANCE

Sanctions for violations of this policy may include suspension, dismissal, termination, and where appropriate, exclusion from campus.

V. DATES

A. Effective Date:

This policy will become effective upon the date of approval by the Senior Vice President for Administration and Finance and the Provost and Executive Vice President.

B. Date of Most Recent Review:

N/A

VI. TIMETABLE FOR REVIEW

This policy, and any related procedures, shall be reviewed every three years or more frequently as needed.

VII. SIGNATURES

Approved:

_____/S/_____
Senior Vice President for Administration and Finance

_____/S/_____
Provost and Executive Vice President

Date Approved: January 29, 2016
Revised: August 30, 2017
Revised: June 15, 2021

WINCHESTER PUBLIC SCHOOLS
Learning for all, whatever it takes
598 N. Kent Street, Winchester, VA 22601
P 540-667-4253 **F** 540-722-6198

April 29, 2024

Virginia College Partnership Laboratory School Committee
Virginia Department of Education (VDOE)

Dear Selection Committee Member:

RE: Letter of support from Winchester Public Schools

If the proposal submitted by Dr. Padmanabhan Seshaiyer, Professor and Director, George Mason University and Dr. Deborah Crawford, Supervisor of Mathematics & World Language, Frederick County Public Schools, entitled "The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data and Computing," is selected for funding by the Virginia Department of Education (VDOE) for a full College Partnership Laboratory School, it is the intent of Winchester Public Schools to collaborate with George Mason University and Frederick County Public Schools on the implementation of the proposed lab school.

Both Drs. Seshaiyer and Crawford have extensive experience and have served as the leaders in higher education and K-12, respectively, for the newly approved Virginia Board of Education High School Data Science Standards of Learning, Curriculum and Course for the Commonwealth of Virginia. They represent a strong leadership team for the Shenandoah Valley Rural Regional College Partnership Laboratory School for Data, Computing and applications, and have rich experiences in developing and managing programs with a strong record in promoting research and innovation at all levels. I am pleased to note that the proposed Lab School will build on four years of successful partnership between George Mason University and Frederick County Public Schools through the VDOE Advancing Computer Science Education grants for the Shenandoah Valley that has already positively impacted hundreds of students and teachers. The program was also recognized in 2023 as a "Program that Works" by the Virginia Math and Science Coalition for both students and teachers.

We are excited to partner with them to create this College Partnership Laboratory School that will serve hundreds of students and teachers from this region that includes rural and rural fringe school districts in the Shenandoah Valley. I strongly support this proposal and provide my assurances that we will support the project throughout its implementation. Please let me know if you have any questions.

Sincerely,

Jason Van Heukelum
Superintendent

Rick Catlett
Superintendent

Dr. Jessica Nail
Director of Curriculum & Instruction

Frank Moore
Director of Student Services

Clarke County Public Schools
317 West Main Street, Suite A
Berryville, Virginia 22611
Phone: 540-955-6100
Fax: 540-955-6145
www.clarke.k12.va.us

"Encourage Inspire Empower"

Dr. Cathy Seal
Assistant Superintendent

Randy Trenary
Director of Operations

Dr. Ed Shewbridge
Director of Technology & Testing

April 29, 2024

Virginia College Partnership Laboratory School Committee
Virginia Department of Education (VDOE)

RE: Letter of support

Dear Selection Committee Member,

I am excited to write this letter of support for Dr. Padmanabhan Seshaiyer, Professor and Director at George Mason University (GMU) for the proposal titled "*The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data and Computing*".

I currently serve as the School Board Chair for Clarke County Public Schools that has been one of the partners working with GMU in the Shenandoah Regional CS Partnership for the last four years, which is a VDOE Advancing Computer Science Education project with local education agencies including Clarke County, Fauquier County, Frederick County, Mountain Vista Governor's School, Page County, Shenandoah County, Shenandoah University, Warren County and Winchester City. This Regional Partnership has already impacted about 400 teachers and over 700 students in the last four years in the Shenandoah Valley which is commendable.

I am excited to note that the proposed Shenandoah Valley Rural Regional College Partnership Laboratory School will be a data-focused lab school with an emphasis on advancing Data Science, Computing and Applications (DSCA) and that it will expand opportunities for hundreds of students and teachers from this region that includes rural and rural fringe school districts in the Shenandoah Valley. I am confident that this GMU College Partnership Lab School will help students to become adept problem solvers in a data-driven world, honing skills crucial for both apprenticeships and college preparation.

I strongly support this proposal and provide my assurances that we will support the project throughout its implementation. Please let me know if you have any questions.

Sincerely,

Monica Singh-Smith

Monica Singh-Smith, Chair
Clarke County School Board

Warren County Public Schools
210 North Commerce Avenue
Front Royal, Virginia 22630-4419
Phone (540) 635-2171
www.wcps.k12.va.us

Office of the
Superintendent

April 29, 2024

Virginia College Partnership Laboratory School Committee
Virginia Department of Education (VDOE)

RE: Letter of support

Dear Selection Committee Member,

I am excited to write this letter of support for Dr. Padmanabhan Seshaiyer, Professor and Director at George Mason University (GMU) for the proposal titled *"The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data and Computing"*.

I currently serve as the School Board Chair for **Warren County Public Schools** that has been one of the partners working with GMU in the Shenandoah Regional CS Partnership for the last four years, which is a VDOE Advancing Computer Science Education project with local education agencies including Clarke County, Fauquier County, Frederick County, Mountain Vista Governor's School, Page County, Shenandoah County, Shenandoah University, Warren County and Winchester City. This Regional Partnership has already impacted about 400 teachers and over 700 students in last four years in the Shenandoah Valley which is commendable.

I am excited to note that the proposed Shenandoah Valley Rural Regional College Partnership Laboratory School will be a data-focused lab school with an emphasis on advancing Data Science, Computing and Applications (DSCA) and that it will expand opportunities for hundreds of students and teachers from this region that includes rural and rural fringe school districts in the Shenandoah Valley. I am confident that this GMU College Partnership Lab School will help students to become adept problem solvers in a data-driven world, honing skills crucial for both apprenticeships and college preparation.

I strongly support this proposal and provide my assurances that we will support the project throughout its implementation. Please let me know if you have any questions.

Sincerely,

Kristen J. Pence, DVM
School Board Chair
Warren County Public Schools

Frederick County Public Schools

1415 Amherst Street, P.O. Box 3508, Winchester, VA 22604
www.FrederickCountySchoolsVA.net

April 29, 2024

Virginia College Partnership Laboratory School Committee
Virginia Department of Education (VDOE)

RE: Letter of support

Dear Selection Committee Member,

I am excited to write this letter of support for Dr. Padmanabhan Seshaiyer, Professor and Director at George Mason University (GMU) for the proposal titled "*The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data and Computing*".

I currently serve as the School Board Chair for **Frederick County Public Schools** that has been one of the partners working with GMU in the Shenandoah Regional CS Partnership for the last four years, which is a VDOE Advancing Computer Science Education project with local education agencies including Clarke County, Fauquier County, Frederick County, Mountain Vista Governor's School, Page County, Shenandoah County, Shenandoah University, Warren County and Winchester City. This Regional Partnership has already impacted about 400 teachers and over 700 students in the last four years in the Shenandoah Valley which is commendable.

I am excited to note that the proposed Shenandoah Valley Rural Regional College Partnership Laboratory School will be a data-focused lab school with an emphasis on advancing Data Science, Computing and Applications (DSCA) and that it will expand opportunities for hundreds of students and teachers from this region that includes rural and rural fringe school districts in the Shenandoah Valley. I am confident that this GMU College Partnership Lab School will help students to become adept problem solvers in a data-driven world, honing skills crucial for both apprenticeships and college preparation.

I strongly support this proposal and provide my assurances that we will support the project throughout its implementation. Please let me know if you have any questions.

Sincerely,

Mr. Scott Sturdivant
Chair

Fauquier County School Board

320 Hospital Drive
Warrenton, Virginia 20186

Excellence by Design

May 1, 2024

Virginia College Partnership Laboratory School Committee
Virginia Department of Education (VDOE)

RE: Letter of support

Dear Selection Committee Member,

I am excited to write this letter of support for Dr. Padmanabhan Seshaiyer, Professor and Director at George Mason University (GMU) for the proposal titled "*The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data and Computing".*

I currently serve as the School Board Chair for **Fauquier County Public Schools** that has been one of the partners working with GMU in the Shenandoah Regional CS Partnership for the last four years, which is a VDOE Advancing Computer Science Education project with local education agencies including Clarke County, Fauquier County, Frederick County, Mountain Vista Governor's School, Page County, Shenandoah County, Shenandoah University, Warren County and Winchester City. This Regional Partnership has already impacted about 400 teachers and over 700 students in last four years in the Shenandoah Valley which is commendable.

I am excited to note that the proposed Shenandoah Valley Rural Regional College Partnership Laboratory School will be a data-focused lab school with an emphasis on advancing Data Science, Computing and Applications (DSCA) and that it will expand opportunities for hundreds of students and teachers from this region that includes rural and rural fringe school districts in the Shenandoah Valley. I am confident that this GMU College Partnership Lab School will help students to become adept problem solvers in a data-driven world, honing skills crucial for both apprenticeships and college preparation.

I strongly support this proposal and provide my assurances that we will support the project throughout its implementation. Please let me know if you have any questions.

Sincerely,

Susan Pauling
School Board Chair

600 North Main Street, Suite 200 • Woodstock, VA 22664 • (540) 459-6222 • FAX (540) 459-6707
Office of Superintendent

May 2, 2024

Virginia College Partnership Laboratory School Committee
Virginia Department of Education (VDOE)

RE: Letter of support

Dear Selection Committee Member,

I am pleased to write this letter of support for George Mason University (GMU) regarding the proposal titled "*The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data and Computing,*" under the guidance of Padmanabhan Seshaiyer, Professor and Director.

I currently serve as the School Board Chair for **Shenandoah County Public Schools** that has been one of the partners working with GMU in the Shenandoah Regional CS Partnership for the last four years, which is a VDOE Advancing Computer Science Education project with local education agencies including Clarke County, Fauquier County, Frederick County, Mountain Vista Governor's School, Page County, Shenandoah County, Shenandoah University, Warren County and Winchester City. This Regional Partnership has already impacted about 400 teachers and over 700 students in the last four years in the Shenandoah Valley which is commendable.

I am particularly happy to note that the proposed Shenandoah Valley Rural Regional College Partnership Laboratory School will be a data-focused lab school with an emphasis on advancing Data Science, Computing and Applications (DSCA) and that it will expand opportunities for hundreds of students and teachers from this region that includes rural and rural fringe school districts in the Shenandoah Valley. I am confident that this GMU College Partnership Lab School will help students to become adept problem solvers in a data-driven world, honing skills crucial for both apprenticeships and college preparation.

I strongly endorse this proposal and look forward to supporting the project throughout its implementation. Please let me know if you have any questions.

Sincerely,

DC Barlow

Mr. Dennis C. Barlow, Chairman
Shenandoah County Public Schools
School Board

WINCHESTER PUBLIC SCHOOLS
598 North Kent Street
Winchester, VA 22601

April 29, 2024

Virginia College Partnership Laboratory School Committee
Virginia Department of Education (VDOE)

RE: Letter of support

Dear Selection Committee Member,

I am excited to write this letter of support for Dr. Padmanabhan Seshaiyer, Professor and Director at George Mason University (GMU) for the proposal titled "*The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data and Computing".*

I currently serve as the School Board Chair for **Winchester Public Schools** that has been one of the partners working with GMU in the Shenandoah Regional CS Partnership for the last four years, which is a VDOE Advancing Computer Science Education project with local education agencies including Clarke County, Fauquier County, Frederick County, Mountain Vista Governor's School, Page County, Shenandoah County, Shenandoah University, Warren County and Winchester City. This Regional Partnership has already impacted about 400 teachers and over 700 students in last four years in the Shenandoah Valley which is commendable.

I am excited to note that the proposed Shenandoah Valley Rural Regional College Partnership Laboratory School will be a data-focused lab school with an emphasis on advancing Data Science, Computing and Applications (DSCA) and that it will expand opportunities for hundreds of students and teachers from this region that includes rural and rural fringe school districts in the Shenandoah Valley. I am confident that this GMU College Partnership Lab School will help students to become adept problem solvers in a data-driven world, honing skills crucial for both apprenticeships and college preparation.

I strongly support this proposal and provide my assurances that we will support the project throughout its implementation. Please let me know if you have any questions.

Sincerely,

Bryan Pearce-Gonzales
Chair, Winchester Public School Board

PAGE COUNTY PUBLIC SCHOOLS

735 West Main Street, Luray, Virginia 22835
Phone 540.743.6533 ~ Fax 540.743.7784
www.pagecounty.k12.va.us

April 29, 2024

Virginia College Partnership Laboratory School Committee
Virginia Department of Education (VDOE)

RE: Letter of support

Dear Selection Committee Member,

I am excited to write this letter of support for Dr. Padmanabhan Seshaiyer, Professor and Director at George Mason University (GMU) for the proposal titled *"The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data and Computing".*

I currently serve as the School Board Chair for **Page County Public Schools** that has been one of the partners working with GMU in the Shenandoah Regional CS Partnership for the last four years, which is a VDOE Advancing Computer Science Education project with local education agencies including Clarke County, Fauquier County, Frederick County, Mountain Vista Governor's School, Page County, Shenandoah County, Shenandoah University, Warren County and Winchester City. This Regional Partnership has already impacted about 400 teachers and over 700 students in last four years in the Shenandoah Valley which is commendable.

I am excited to note that the proposed Shenandoah Valley Rural Regional College Partnership Laboratory School will be a data-focused lab school with an emphasis on advancing Data Science, Computing and Applications (DSCA) and that it will expand opportunities for hundreds of students and teachers from this region that includes rural and rural fringe school districts in the Shenandoah Valley. I am confident that this GMU College Partnership Lab School will help students to become adept problem solvers in a data-driven world, honing skills crucial for both apprenticeships and college preparation.

I strongly support this proposal and provide my assurances that we will support the project throughout its implementation. Please let me know if you have any questions.

Sincerely,

Megan L Gordon

Megan Gordon
School Board Chair

Appendix J

The Shenandoah Valley Rural Regional College Partnership Laboratory School for Data Science, Computing and Applications (DCSA)

Lab School Distribution of Responsibilities Draft

George Mason University and Frederick County Public Schools understand the need to work collaboratively to achieve the mission and goals of the DSCA Lab-Schools.

Frederick County Public Schools responsibilities:

- Serve as the lead K-12 partner working with George Mason University to coordinate DSCA lab school activities at the Dowell J Howard Center
- Coordinate with the partnering six school divisions in the Shenandoah Valley included in the application to take part in the DSCA Lab-school activities
- Provide a safe and well-maintained space for the DSCA Lab-School at Dowell J Howard Center
- Collaborate with George Mason University staff to integrate Virginia Standards of Learning into the curriculum.
- Facilitate interdisciplinary collaboration between George Mason University programs and DSCA Lab-School college-credit coursework.
- Provide onboarding and ongoing support for the Director and other employees of the Lab-School at Dowell J Howard Center
- Provide regular updates to the lab school Governing Board related to student outcomes, Lab School employee performance and any other lab school-related items.
- Ensure that all student schedules reflect their time in the DSCA lab school as outlined in the lab school application.
- Support student teaching opportunities and practicum opportunities for George Mason University undergraduate and graduate STEM students
- Work with George Mason University to promote the DSCA lab school's initiatives, achievements, and success stories through various media outlets and academic platforms.
- Work with George Mason University to help recruit educators to participate in DSCA lab school.
- Work with George Mason University to help recruit families and students to participate in the lab school project activities and committee meetings

George Mason University (GMU) responsibilities:

- Recruit, supervise, develop, and manage salary and benefit awards for lab-school related employees.
- Provide ongoing professional learning opportunities and support of teachers from the DSCA lab school and all the partner school divisions through continuing education opportunities related to DSCA
- Provide curriculum development support for the DSCA lab school.
- Periodically review and adapt the curriculum in response to changes in educational standards, technological advancements, and feedback from stakeholders.
- Establish and manage partnerships toward the development, implementation and sustainability of the DSCA lab school.
- Allocate funds as proposed in Lab School application, and oversee the procurement of essential equipment for the DSCA lab school.
- Recruit and supervise undergraduate and graduate students working with Laurel Ridge Community College and Smithsonian Mason School of Conservation for internships and practicum experiences in the DSCA lab school.
- Help identify and provide staffing for the Smithsonian Mason School of Conservation activities and courses such as the Super Saturdays and research and science coursework for the DSCA lab school
- Facilitate family/student focus group sessions and lab school meetings.
- Provide regular updates to the lab school Governing Board related to professional learning, research results, DSCA lab school employee performances and any other lab school-related items.
- Coordinate all GMU-related research efforts in the lab school.
- Research the impact and effectiveness of the DSCA lab school on student and teacher outcomes.
- Work with Frederick County to promote the DSCA lab school's initiatives, achievements, and success stories through various media outlets and academic platforms.
- Annual review and update MOU with DSCA under the guidance of the lab school Governing Board.